UNITED STATES INTERNATIONAL TRADE COMMISSION
WASHINGTON, D.C. 20436

In the Matter of **CERTAIN PORTABLE GAMING CONSOLE SYSTEMS WITH ATTACHABLE HANDHELD CONTROLLERS AND COMPONENTS THEREOF II**	**Inv. No. 337-TA-1197**

INITIAL DETERMINATION

Administrative Law Judge David P. Shaw

Pursuant to the notice of investigation, 85 Fed. Reg. 26492 (May 4, 2020), this is the initial determination in *Certain Portable Gaming Console Systems with Attachable Handheld Controllers and Components Thereof II*, United States International Trade Commission Investigation No. 337-TA-1197.

It is held that no violation of section 337 of the Tariff Act, as amended, has occurred in the importation into the United States, the sale for importation, or the sale within the United States after importation, of certain portable gaming console systems with attachable handheld controllers and components thereof, with respect to asserted claims 1-4, 6-8, 12, and 17-18 of U.S. Patent No. 10,391,393.

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A. Claim 1 108

1. A combination comprising: 108

2. a computing device; 108

3. a pair of confinement structures, ... 115

4. the pair of confinement structures interacting with the computing device and adjacent at least two opposing sides of the computing device, but not more than three sides of the sides of the computing device; 121

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5. each of the pair of confinement structures comprising a communication link, each of the communication links configured for electronic communication with the computing device; 125

6. a rigid structural bridge disposed between and secured to the pair of confinement structures, ...130

7. the rigid structural bridge comprising a passageway between the pair of confinement structures, ...134

8. the passageway promotes electrical communication between the communication link of a first confinement structure of the pair of confinement structures and the computing device, the passageway further promotes electrical communication between the communication link of a second confinement structure of the pair of confinement structures and the computing device; 143

9. a pair of electronic game control modules, ...146

10. each electronic game control module of the pair of electronic game control modules is secured to and interacts with a corresponding confinement structure of the pair of confinement structures; 147

11. each electronic game control module in electronic communication with the communication link of its corresponding confinement structure, ...147

12. wherein each electronic game control module is a separate and distinct structure from each of their corresponding confinement structures, forming no structural portion of their corresponding confinement structures, ...152

13. in which each of the pair of confinement structures are separate and distinct structures from the structural bridge, forming no structural portion of the structural bridge. 152

B. Claim 2 157

a. The combination of claim 1, ...157

b. in which the rigid structural bridge supports electronics associated with the computing device. 157

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1. The combination of claim 2, ...158

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D. Claim 4 158

1. The combination of claim 3, ...159

2. in which the rigid structural bridge cooperates with the back of the computing device. 159

E. Claim 6 160

1. The combination of claim 4, ...160

2. in which the computing device comprises an electronic display screen, and wherein at least one electronic game control module of the pair of electronic game control modules passes signals through its corresponding communication link to the computing device, the signals passed to the computing device controlling images displayed on the electronic display screen of the computing device. 160

F. Claim 7 160

1. The combination of claim 2, ...161

2. in which the electronics supported by the rigid structural bridge is a communication module associated with the computing device. 161

G. Claim 8 162

1. A combination comprising: 162

2. a structural bridge, the structural bridge having a first end associated with a first electronic game control module of a pair of electronic game control modules and a second end associated with a second electronic game control module of the pair of electronic game control modules, ...162

3. the structural bridge configured for adaptation to a computing device, ..163

4. the computing device having a length greater than its width, the structural bridge accommodates the length of the computing device, ...164

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5. in which the structural bridge provides a void, the void disposed between the first end of the structural bridge and the second end of the structural bridge, the void having right, left, upper, and lower sides, each side of the void communicating with a material of the structural bridge. 165

H. Claim 12.....168

1. A combination comprising:.....169

2. a first electronic game control module of a pair of electronic game control modules, and a second electronic game control module of the pair of electronic game control modules 169

3. each the first and the second electronic game control modules includes at least a plurality of instructional input devices, ...169

4. and at least one of the first and the second electronic game control modules further comprising a restraint, the restraint providing at least a spring member; 169

5. a structural bridge interposed between said first and second electronic game control module, ...170

6. said structural bridge comprising a first side, said first side of said structural bridge in contact adjacency with said first electronic game control module, ...170

7. said structural bridge further comprising a second side, said second side of said structural bridge in contact adjacency with said second electronic game control module, ...172

8. said structural bridge still further comprising a retention mechanism, the retention mechanism providing at least a boss, ...172

9. an interaction of the spring member of the restraint with the boss of the retention mechanism couples the structural bridge to at least one of the first and the second electronic game control modules. 180

I. Claim 16.....185

1. An apparatus comprising: 185

2. a first means for attaching an input device to a computing device,.....185

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3. said computing device provides a central processing unit and plurality of sides,.....187

4. each of the plurality of sides cooperating with the electronic display screen of said computing device; 187

5. a second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device, ...187

6. said virtual object provided by an electronic game, said electronic game interacting with said central processing unit,.....190

7. wherein said second means is accommodated by said input device. 190

J. Claim 17.....191

1. The apparatus of claim 16, in which the computing device having a length greater than its width, and wherein the first means for attaching the input device to a computing device comprising:.....191

2. a pair of confinement structures,.....191

3. the pair of confinement structures interacting with the computing device and adjacent at least two opposing sides of the computing device, the at least two opposing sides adjacent the electronic display screen and define end points of the length of the computing device,.....192

4. the pair of confinement structures adapt to and are in pressing contact with said end points of the length of the computing device,.....193

5. each of the pair of confinement structures comprising a communication link, each of the communication links configured for electronic communication with the central processing unit; 195

6. a rigid structural bridge disposed between and secured to the pair of confinement structures, ...198

7. the rigid structural bridge includes at least a passageway between the pair of confinement structures,.....199

8. the passageway promotes electrical communication between the communication link of a first confinement structure of the pair of confinement structures and the computing device, the passageway further promotes electrical communication between the communication link of a

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second confinement structure of the pair of confinement structures and the computing device; 200

9. wherein the input device is a pair of control modules, ...201

10. each control module of the pair of control modules mechanically interacting with a corresponding confinement structure of the pair of confinement structures, ...201

11. wherein each control module is a separate and distinct structure from the pair of confinement structures, forming no structural portion of the pair of confinement structures, ...202

12. in which each of the pair of confinement structures are separate and distinct structures from the structural bridge, forming no structural portion of the structural bridge. 202

K. Claim 18 204

1. The apparatus of claim 17, in which the second means for controlling movement of the virtual object displayed on said electronic display comprising: 204

2. each control module of the pair of control modules is in electronic communication with the communication link of its corresponding confinement structure, ...205

3. each of the pair of control modules provides a plurality of instructional input devices, ...207

4. wherein said instructional input devices are adjacent each of the at least two opposing sides of the computing device, and wherein the instructional input devices in conjunction with the central processing unit control movement of the virtual object displayed on the electronic display screen. 207

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1. Claim 16 215

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b. a first means for attaching an input device to a computing device, ...216

c. said computing device provides a central processing unit and plurality of sides,.....217

d. each of the plurality of sides cooperating with the electronic display screen of said computing device; 217

e. a second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device, ...217

f. said virtual object provided by an electronic game, said electronic game interacting with said central processing unit, ...218

g. wherein said second means is accommodated by said input device. 218

2. Claim 21 219

a. The apparatus of claim 16, in which the computing device having a length greater than its width, and wherein the first means for attaching the input device to a computing device comprising: 219

b. the input device in electronic communication with the central processing unit of the computing device, ...220

c. the input device providing a pair of control modules a first control module of a pair of control modules, and a second control module of the pair of control modules, ...220

d. at least one of the first and the second control modules further comprising a fastening latch; 220

e. a structural bridge disposed between said first and second control module,.....224

f. said structural bridge comprising a first side, said first side of said structural bridge in contact adjacency with said first control module, said structural bridge further comprising a second side, said second

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side of said structural bridge in contact adjacency with said second control module, ...224

g. said structural bridge still further comprising a retention member, the retention member interacts with the fastening latch, the interaction of the fastening latch with the retention member restrains the structural bridge to a control module of the pair of control modules, and the pair of control modules to the computing device. 225

3. Claim 22 226

a. The apparatus of claim 21, in which the second means for controlling a movement of the virtual object displayed on said electronic display comprising: 226

b. a communication link, the communication link facilitates communication between the pair of control modules and the central processing unit of the computing device; 227

c. each the first and the second control modules of the pair of control modules comprising a plurality instructional input devices, and wherein the plurality of instructional input devices in conjunction with the central processing unit control movement of the virtual object displayed on the electronic display screen. 227

C. Gamevice for Android 228

1. Claim 16 228

a. An apparatus comprising: 228

b. a first means for attaching an input device to a computing device, ...228

c. said computing device provides a central processing unit and plurality of sides,.....229

d. each of the plurality of sides cooperating with the electronic display screen of said computing device; 229

e. a second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device, ...229

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f. said virtual object provided by an electronic game, said electronic game interacting with said central processing unit, ...230

g. wherein said second means is accommodated by said input device. 231

2. Claim 21 232

a. The apparatus of claim 16, in which the computing device having a length greater than its width, and wherein the first means for attaching the input device to a computing device comprising: 232

b. the input device in electronic communication with the central processing unit of the computing device, ...232

c. the input device providing a pair of control modules a first control module of a pair of control modules, and a second control module of the pair of control modules, ...232

d. at least one of the first and the second control modules further comprising a fastening latch; 232

e. a structural bridge disposed between said first and second control module, ...233

f. said structural bridge comprising a first side, said first side of said structural bridge in contact adjacency with said first control module, said structural bridge further comprising a second side, said second side of said structural bridge in contact adjacency with said second control module, ...234

g. said structural bridge still further comprising a retention member, the retention member interacts with the fastening latch, the interaction of the fastening latch with the retention member restrains the structural bridge to a control module of the pair of control modules, and the pair of control modules to the computing device. 234

3. Claim 22 235

a. The apparatus of claim 21, in which the second means for controlling a movement of the virtual object displayed on said electronic display comprising: 235

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b. a communication link, the communication link facilitates communication between the pair of control modules and the central processing unit of the computing device; 236

c. each the first and the second control modules of the pair of control modules comprising a plurality instructional input devices, and wherein the plurality of instructional input devices in conjunction with the central processing unit control movement of the virtual object displayed on the electronic display screen. 237

D. Gamevice for iPad.....237

1. Claim 8.....237

a. A combination comprising:.....237

b. a structural bridge, the structural bridge having a first end associated with a first electronic game control module of a pair of electronic game control modules and a second end associated with a second electronic game control module of the pair of electronic game control modules,.....237

c. the structural bridge configured for adaptation to a computing device, ...238

d. the computing device having a length greater than its width, the structural bridge accommodates the length of the computing device, ...238

e. in which the structural bridge provides a void, the void disposed between the first end of the structural bridge and the second end of the structural bridge, the void having right, left, upper, and lower sides, each side of the void communicating with a material of the structural bridge. 239

2. Claim 16.....239

a. An apparatus comprising: 239

b. a first means for attaching an input device to a computing device, ...240

c. said computing device provides a central processing unit and plurality of sides,.....241

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d. each of the plurality of sides cooperating with the electronic display screen of said computing device; 241

e. a second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device, ...241

f. said virtual object provided by an electronic game, said electronic game interacting with said central processing unit, ...242

g. wherein said second means is accommodated by said input device. 242

1. Claim 19 243

a. The apparatus of claim 16, in which the computing device having a length greater than its width, and wherein the first means for attaching the input device to a computing device comprising: 243

b. the input device in electronic communication with the central processing unit, ...243

c. the input device providing a pair of control modules, the pair of control modules are adjacent to and confine the computing device on at least two opposing sides of the computing device, ...244

d. the at least two opposing sides adjacent the electronic display screen define end points of the length of the computing device, the pair of control modules each adapt to and are in pressing contact with said opposing end points of the length of the computing device; 244

e. a structural bridge, the structural bridge secures the pair of control modules one to the other, ...244

f. wherein a first of the pair of control modules comprising a retention mechanism communicating with the structural bridge, ...245

g. wherein the retention mechanism secures the structural bridge to the first of the pair of control modules, such that the structural bridge accommodates the length of the computing device, ...246

h. in which the structural bridge provides a void in the mid-section of the structural bridge, the void having right, left, upper, and lower

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sides, each side communicating with a material of the structural bridge. 246

2. Claim 20....246

a. The apparatus of claim 19, in which the second means for controlling a movement of a virtual object displayed on said electronic display comprising: 247

b. a communication link, the communication link facilitates communication between the pair of control modules and the central processing unit, ...248

c. each of the pair of control modules provides instructional input devices, wherein said instructional input devices are adjacent each of the at least two opposing sides of the computing device, wherein the instructional input devices in conjunction with the central processing unit control movement of the virtual object displayed on the electronic display screen. 248

3. Claim 21....248

a. The apparatus of claim 16, in which the computing device having a length greater than its width, and wherein the first means for attaching the input device to a computing device comprising:....249

b. the input device in electronic communication with the central processing unit of the computing device, ...249

c. the input device providing a pair of control modules a first control module of a pair of control modules, and a second control module of the pair of control modules,....249

d. at least one of the first and the second control modules further comprising a fastening latch; 249

e. a structural bridge disposed between said first and second control module,....250

f. said structural bridge comprising a first side, said first side of said structural bridge in contact adjacency with said first control module, said structural bridge further comprising a second side, said second side of said structural bridge in contact adjacency with said second control module, ...250

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g. said structural bridge still further comprising a retention member, the retention member interacts with the fastening latch, the interaction of the fastening latch with the retention member restrains the structural bridge to a control module of the pair of control modules, and the pair of control modules to the computing device. 251

4. Claim 22 251

a. The apparatus of claim 21, in which the second means for controlling a movement of the virtual object displayed on said electronic display comprising: 252

b. a communication link, the communication link facilitates communication between the pair of control modules and the central processing unit of the computing device; 253

c. each the first and the second control modules of the pair of control modules comprising a plurality instructional input devices, and wherein the plurality of instructional input devices in conjunction with the central processing unit control movement of the virtual object displayed on the electronic display screen. 253

E. Kishi 253

1. Whether the Razer Kishi Is a Domestic Industry Product 253

2. Claim 8 256

a. A combination comprising: 256

b. a structural bridge, the structural bridge having a first end associated with a first electronic game control module of a pair of electronic game control modules and a second end associated with a second electronic game control module of the pair of electronic game control modules, ...256

c. the structural bridge configured for adaptation to a computing device, ...257

d. the computing device having a length greater than its width, the structural bridge accommodates the length of the computing device, ...257

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e. in which the structural bridge provides a void, the void disposed between the first end of the structural bridge and the second end of the structural bridge, the void having right, left, upper, and lower sides, each side of the void communicating with a material of the structural bridge. 257

3. Claim 9.....261

a. The device of claim 8, in which the first of the pair of electronic game control modules further comprises a tensioning mechanism, a bottom cover, wherein the bottom cover provides a position guide, and in which the tensioning mechanism comprises:.....261

b. an attachment boss communicating with the structural bridge;...261

c. an attachment support cooperating with the attachment boss, the attachment support in cooperation with the attachment boss secures the structural bridge, the structural bridge disposed between the attachment boss and the attachment support;.....263

d. a biasing structure communicating with an attachment stay, the biasing structure provides tension between the structural bridge and the second of the pair of electronic game control modules. 265

4. Claim 10.....266

a. The device of claim 9,.....266

b. in which the attachment stay comprises a guide aperture interacting with the position guide,.....266

c. the interaction of the guide aperture with the position guide maintains alignment between the structural bridge and the second of the pair of electronic game control modules.....267

5. Claim 11.....267

a. The device of claim 9,.....267

b. in which at least one of the pair of electronic game control modules is a video game control module, and in which the video game control module passes signals to the computing device, the signals control images displayed on an electronic display screen of the computing device. 267

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6. Claim 16 268

a. An apparatus comprising: 268

b. a first means for attaching an input device to a computing device, ... 268

c. said computing device provides a central processing unit and plurality of sides, ... 269

d. each of the plurality of sides cooperating with the electronic display screen of said computing device; 269

e. a second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device, ... 269

f. said virtual object provided by an electronic game, said electronic game interacting with said central processing unit, ... 270

g. wherein said second means is accommodated by said input device. 270

7. Claim 19 271

a. The apparatus of claim 16, in which the computing device having a length greater than its width, and wherein the first means for attaching the input device to a computing device comprising: 272

b. the input device in electronic communication with the central processing unit, ... 272

c. the input device providing a pair of control modules, the pair of control modules are adjacent to and confine the computing device on at least two opposing sides of the computing device, ... 272

d. the at least two opposing sides adjacent the electronic display screen define end points of the length of the computing device, the pair of control modules each adapt to and are in pressing contact with said opposing end points of the length of the computing device; 272

e. a structural bridge, the structural bridge secures the pair of control modules one to the other, ... 273

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f. wherein a first of the pair of control modules comprising a retention mechanism communicating with the structural bridge, ...273

g. wherein the retention mechanism secures the structural bridge to the first of the pair of control modules, such that the structural bridge accommodates the length of the computing device, ...274

h. in which the structural bridge provides a void in the mid-section of the structural bridge, the void having right, left, upper, and lower sides, each side communicating with a material of the structural bridge. 274

8. Claim 20 275

a. The apparatus of claim 19, in which the second means for controlling a movement of a virtual object displayed on said electronic display comprising: 275

b. a communication link, the communication link facilitates communication between the pair of control modules and the central processing unit, ...276

c. each of the pair of control modules provides instructional input devices, wherein said instructional input devices are adjacent each of the at least two opposing sides of the computing device, wherein the instructional input devices in conjunction with the central processing unit control movement of the virtual object displayed on the electronic display screen. 276

9. Claim 21 276

a. The apparatus of claim 16, in which the computing device having a length greater than its width, and wherein the first means for attaching the input device to a computing device comprising: 277

b. the input device in electronic communication with the central processing unit of the computing device, ...277

c. the input device providing a pair of control modules a first control module of a pair of control modules, and a second control module of the pair of control modules, ...277

d. at least one of the first and the second control modules further comprising a fastening latch; 277

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e. a structural bridge disposed between said first and second control module,....278

f. said structural bridge comprising a first side, said first side of said structural bridge in contact adjacency with said first control module, said structural bridge further comprising a second side, said second side of said structural bridge in contact adjacency with said second control module, ...278

g. said structural bridge still further comprising a retention member, the retention member interacts with the fastening latch, the interaction of the fastening latch with the retention member restrains the structural bridge to a control module of the pair of control modules, and the pair of control modules to the computing device. 279

10. Claim 22....279

a. The apparatus of claim 21, in which the second means for controlling a movement of the virtual object displayed on said electronic display comprising: 280

b. a communication link, the communication link facilitates communication between the pair of control modules and the central processing unit of the computing device; 281

c. each the first and the second control modules of the pair of control modules comprising a plurality instructional input devices, and wherein the plurality of instructional input devices in conjunction with the central processing unit control movement of the virtual object displayed on the electronic display screen. 281

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The following abbreviations may be used in this Initial Determination:

ALJ	-	Administrative Law Judge
CDX	-	Complainant's Demonstrative Exhibit
CPX	-	Complainant's Physical Exhibit
CX	-	Complainant's Exhibit
Dep.	-	Deposition
EDIS	-	Electronic Document Imaging System
JPX	-	Joint Physical Exhibit
JX	-	Joint Exhibit
MPEP	-	Manual of Patent Examining Procedure
P.H.	-	Prehearing
PTO	-	U.S. Patent and Trademark Office
RDX	-	Respondents' Demonstrative Exhibit
Rog	-	Interrogatory
RPX	-	Respondents' Physical Exhibit
RWS	-	Rebuttal Witness Statement
RX	-	Respondents' Exhibit
Tr.	-	Transcript
WS	-	Witness Statement

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I. Background

A. Institution of the Investigation; Procedural History

By publication of a notice in the *Federal Register* on May 4, 2020, pursuant to subsection (b) of section 337 of the Tariff Act of 1930, as amended, the Commission instituted this investigation to determine:

> [W]hether there is a violation of subsection (a)(1)(B) of section 337 in the importation into the United States, the sale for importation, or the sale within the United States after importation of certain products identified in paragraph (2) by reason of infringement of one or more of claims 1–4, 6–8, and 12–18 of the '393 patent [U.S. Patent No. 10,391,393]; and whether an industry in the United States exists as required by subsection (a)(2) of section 337.

85 Fed. Reg. 26493 (May 4, 2020).

The Commission named as complainant Gamevice, Inc. of Simi Valley, California ("Gamevice" or "complainant"). *Id.*

The Commission named as respondents Nintendo Co., Ltd. of Kyoto, Japan and Nintendo of America, Inc. of Redmond, Washington (collectively, "Nintendo" or "respondents"). *Id.*

The Office of Unfair Import Investigations was also named as a party to this investigation. *Id.*

The target date for completion of this investigation was originally set at 15 months, *i.e.*, August 4, 2021, with an evidentiary hearing scheduled to commence on December 9, 2020. Order No. 3 (May 8, 2020).

On June 18, 2020, Gamevice filed a motion for leave to file an amended complaint to reflect the issuance of a Certificate of Correction for the '393 patent. The administrative law judge granted the motion. Order No. 8 (Aug. 26, 2020).

On July 24, 2020, Gamevice filed a motion to terminate the investigation in part and to withdraw allegations in its complaint of infringement by respondents with respect to claims 13-15 of the '393 patent. The administrative law judge granted the motion in an initial determination. Order No. 6 (Aug. 14, 2020), *aff'd*, Commission Determination Not to Review an Initial Determination Terminating the Investigation with Respect to Certain Claims (Sept. 10, 2020) (EDIS Doc. No. 719273).

On November 23, 2020, Gamevice filed a motion to terminate the investigation in part and to withdraw allegations in its complaint of infringement by respondents with respect to claim 16 of the '393 patent. The administrative law judge granted the motion in an initial determination. Order No. 10 (Dec. 7, 2020), *aff'd*, Commission Determination Not to Review an Initial Determination Terminating the Investigation with Respect to a Patent Claim (Jan. 5, 2021) (EDIS Doc. No. 729527).

A prehearing conference was held on December 9, 2020, with the evidentiary hearing in this investigation commencing immediately thereafter. Gamevice and Nintendo participated in the hearing. The hearing concluded on December 14, 2020. *See* Order No. 9 (Dec. 4, 2020); P.H. Tr. 1-14; Tr. 1-967. The parties were requested to file posthearing briefs not to exceed 200 pages in length, and to file reply briefs not to exceed 60 pages in length. Order No. 9 at 4.

On January 21, 2021, Gamevice filed its post-hearing brief, which asserts claims 1-4, 6-8, 12, and 17-18 against Nintendo. Compl. Br. at 40.

Pursuant to Order No. 2 (Ground Rules), the parties also submitted a joint outline of the issues to be decided in the Final Initial Determination. *See* Comprehensive Joint Outline of Issues to Be Decided in the Final Initial Determination (EDIS Doc. ID No. 732623) ("Joint Outline").

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On March 18, 2021, the administrative law judge issued Order No. 14, extending the target date to September 4, 2021. *See* Order No. 14. This extension of the target date was made in view of the pandemic and the administrative law judge's docket, and explained that these circumstances would necessitate a further extension of the target date. *See id.*

On April 22, 2021, in accordance with Order No. 14, the administrative law judge issued an initial determination setting the target date at 18 months, *i.e.*, November 4, 2021, with the deadline for this initial determination set at July 2, 2021. Order No. 15 (Apr. 22, 2021), *aff'd*, Commission Determination Not to Review an Initial Determination Extending the Target Date for the Completion of the Investigation (May 18, 2021) (EDIS Doc. No. 742778).

On May 13, 2021, Nintendo filed a "Notice of Supplemental Authority" regarding "the status of the 337-TA-1111 investigation." Notice of Supp. Auth. at 1. Nintendo stated, "On May 12, 2021, the Federal Circuit entered the attached Fed. Cir. R. 36 Summary Affirmance, affirming the Commission's No Violation Determination. 'Retention member' is a disputed term in this investigation." *Id.* No response was filed.

B. The Parties

The complainant is Gamevice, Inc. of Simi Valley, California. Gamevice is a corporation organized and existing under the laws of Delaware. *See* Complaint, ¶ 10. Gamevice is the assignee and owner of the '393 patent. *See id*.

Respondent Nintendo Co., Ltd. ("NCL") is a corporation organized under the laws of Japan. *See id.*, ¶ 11; Nintendo Resp. to Compl. at 3. NCL develops, offers for sale, and sells video-game consoles, handheld video-game systems, video-game systems, accessories, and components for those products, including the Nintendo Switch. *See* Complaint, ¶ 12; Nintendo Resp. to Compl. at 3.

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Respondent Nintendo of America ("NOA") is a corporation organized under the laws of Washington. *See* Complaint, ¶ 13; Nintendo Resp. to Compl. at 3. NOA is a subsidiary of NCL. *See* Complaint, ¶ 14; Nintendo Resp. to Compl. at 4. NOA operates a Nintendo store in New York, NY, and an employee-only store in Redmond, WA. *See* Complaint, ¶ 14; Nintendo Resp. to Compl. at 4. NOA sells and supports products, which may be manufactured outside of the United States, including video-game consoles, handheld video-game systems, video-game systems, accessories, and components of those products, including the Nintendo Switch. *See* Complaint, ¶ 14; Nintendo Resp. to Compl. at 4.

As indicated above, the Office of Unfair Import Investigations ("Staff") is also a party in this investigation.

C. The Accused Products

The accused products in this investigation are listed in a joint filing required by the procedural schedule. *See* Order No. 5 (requiring a "joint statement regarding identification of accused products"). By listing a product in the joint filing, respondents have not admitted infringement. Nevertheless, the joint filing indicates the final extent of Gamevice's accusations in this investigation. *See* Joint Statement Regarding Identification of Accused Products and Stipulation Regarding Representative Accused Products (EDIS Doc. No. 714758).

Gamevice accuses the Nintendo Switch, including the Nintendo Switch Console and Joy-Con Controllers, of infringing claims 1-4, 6-8, and 17-18 of the '393 patent. *See* Compl. Br. at 40-59, 67-75. The Nintendo Switch products are stock numbers [redacted],

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[redacted] *See* Joint Identification of Accused Products at 2. The Joy-Con Controllers are stock numbers [redacted] *See id.*

Gamevice accuses the Joy-Con Charging Grip with Joy-Con Controllers of infringing claim 12 of the '393 patent. *See* Compl. Br. at 59-66. The Joy-Con Charging Grip is stock number HAC-A-ESSKA. *See* Joint Identification of Accused Products at 3.

D. The Domestic Industry Products

Gamevice contends that Gamevice for iPhone (GV157A, representative for GV157A, GV156, GV157, GV157MUS, GV157SF, and GV157WD) practices claims 21 and 22 of the '393 patent. *See* Compl. Br. at 81-88.

Gamevice contends that Gamevice for Android (GV189, representative for GV189, GV167, GV169, and GV186) practices claims 21 and 22 of the '393 patent. *See id.* at 88-93.

Gamevice contends that Gamevice for iPad (GV140, representative for GV140, GV141, GV150, GV160, and GV161) practices claims 8 and 19-22 of the '393 patent. *See id.* at 93-102.

Gamevice contends that the Razer Kishi (GV195, representative for GV195, GV190, GV191, and GV196) practices claims 8-11 and 19-22 of the '393 patent. *See id.* at 102-10.

II. Jurisdiction

No party has contested the Commission's personal jurisdiction over it. *See, e.g.*, Resps. Br. at 10. Indeed, all parties appeared at the evidentiary hearing and presented evidence. It is found that the Commission has personal jurisdiction over all parties. *See, e.g.*, *Certain Liquid*

Crystal Display Modules, Products Containing Same, and Methods for Using the Same, Inv. No. 337-TA-634, Final Initial and Recommended Determinations at 3 (June 12, 2009) (not reviewed).

Gamevice has filed a complaint alleging a violation of section 337, and the Commission, therefore, has subject matter jurisdiction. *See Amgen, Inc. v. United States Int'l Trade Comm'n*, 902 F.2d 1532, 1535-37 (Fed. Cir. 1990).

The Commission also has *in rem* jurisdiction, as the respondents have admitted to importing the accused products. *See* JX-0007C (Private Parties' Joint Stipulation Regarding Importation), ¶¶ 2-4; *Sealed Air Corp. v. Int'l Trade Comm'n*, 645 F.2d 976, 985–86 (C.C.P.A. 1981) (noting that the Commission has jurisdiction over imported goods).

III. Importation

As indicated in the notice of investigation, quoted above, this investigation was instituted to determine whether a violation of section 337 has occurred in "the importation into the United States, the sale for importation, or the sale within the United States after importation" of certain products. *See* 85 Fed. Reg. 26492 (May 4, 2020); 19 U.S.C. § 1337(a)(1)(B) (making unlawful, in certain circumstances, the "importation into the United States, the sale for importation, or the sale within the United States after importation by the owner, importer, or consignee, of articles that . . . infringe a valid and enforceable United States patent . . . ."). It has long been recognized that an importation of even one accused product can satisfy the importation requirement of section 337. *See Certain Trolley Wheel Assemblies*, Inv. No. 337-TA-161, Comm'n Op. at 7-8, USITC Pub. No. 1605 (Nov. 1984) (deeming the importation requirement satisfied by the importation of a single product of no commercial value).

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In this investigation, it is uncontested that the importation requirement is satisfied with respect to the products alleged to infringe the asserted claims of the '393 patent. Nintendo has stipulated to the importation of accused products into the United States, and does not contest that the importation requirement of Section 337 has been met. JX-0007C (Private Parties' Joint Stipulation Regarding Importation), ¶¶ 2-4.

IV. General Principles of Law

A. Claim Construction

Claim construction begins with the plain language of the claim.[1] Claims should be given their ordinary and customary meaning as understood by a person of ordinary skill in the art, viewing the claim terms in the context of the entire patent.[2] *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005), *cert. denied*, 546 U.S. 1170 (2006).

In some instances, claim terms do not have particular meaning in a field of art, and claim construction involves little more than the application of the widely accepted meaning of commonly understood words. *Phillips*, 415 F.3d at 1314. "In such circumstances, general purpose dictionaries may be helpful." *Id.*

In many cases, claim terms have a specialized meaning, and it is necessary to determine what a person of skill in the art would have understood the disputed claim language to mean.

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[1] Only those claim terms that are in controversy need to be construed, and only to the extent necessary to resolve the controversy. *Vanderlande Indus. Nederland BV v. Int'l Trade Comm'n*, 366 F.3d 1311, 1323 (Fed. Cir. 2004); *Vivid Tech., Inc. v. American Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999).

[2] Factors that may be considered when determining the level of ordinary skill in the art include: "(1) the educational level of the inventor; (2) type of problems encountered in the art; (3) prior art solutions to those problems; (4) rapidity with which innovations are made; (5) sophistication of the technology; and (6) educational level of active workers in the field." *Environmental Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 696 (Fed. Cir. 1983), *cert. denied*, 464 U.S. 1043 (1984).

"Because the meaning of a claim term as understood by persons of skill in the art is often not immediately apparent, and because patentees frequently use terms idiosyncratically, the court looks to 'those sources available to the public that show what a person of skill in the art would have understood disputed claim language to mean.'" *Id*. (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1116 (Fed. Cir. 2004)). The public sources identified in *Phillips* include "the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art." *Id.*

In cases in which the meaning of a claim term is uncertain, the specification usually is the best guide to the meaning of the term. *Phillips*, 415 F.3d at 1315. As a general rule, the particular examples or embodiments discussed in the specification are not to be read into the claims as limitations. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (*en banc*), *aff'd*, 517 U.S. 370 (1996). The specification is, however, always highly relevant to the claim construction analysis, and is usually dispositive. *Phillips*, 415 F.3d at 1315 (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). Moreover, "[t]he construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction." *Id.* at 1316.

Claims are not necessarily, and are not usually, limited in scope to the preferred embodiment. *RF Delaware, Inc. v. Pacific Keystone Techs., Inc.*, 326 F.3d 1255, 1263 (Fed. Cir. 2003); *Decisioning.com, Inc. v. Federated Dep't Stores, Inc.*, 527 F.3d 1300, 1314 (Fed. Cir. 2008) ("[The] description of a preferred embodiment, in the absence of a clear intention to limit claim scope, is an insufficient basis on which to narrow the claims."). Nevertheless, claim constructions that exclude the preferred embodiment are "rarely, if ever, correct and require

highly persuasive evidentiary support." *Vitronics*, 90 F.3d at 1583. Such a conclusion can be mandated in rare instances by clear intrinsic evidence, such as unambiguous claim language or a clear disclaimer by the patentees during patent prosecution. *Elekta Instrument S.A. v. O.U.R. Sci. Int'l, Inc.*, 214 F.3d 1302, 1308 (Fed. Cir. 2000); *Rheox, Inc. v. Entact, Inc.*, 276 F.3d 1319 (Fed. Cir. 2002).

If the intrinsic evidence does not establish the meaning of a claim, then extrinsic evidence may be considered. Extrinsic evidence consists of all evidence external to the patent and the prosecution history, and includes inventor testimony, expert testimony, and learned treatises. *Phillips*, 415 F.3d at 1317. Inventor testimony can be useful to shed light on the relevant art. In evaluating expert testimony, a court should discount any expert testimony that is clearly at odds with the claim construction mandated by the claims themselves, the written description, and the prosecution history, in other words, with the written record of the patent. *Id*. at 1318. Extrinsic evidence may be considered if a court deems it helpful in determining the true meaning of language used in the patent claims. *Id.*

B. Infringement

1. Direct Infringement

Under 35 U.S.C. §271(a), direct infringement consists of making, using, offering to sell, or selling a patented invention without consent of the patent owner. The complainant in a section 337 investigation bears the burden of proving infringement of the asserted patent claims by a "preponderance of the evidence." *Certain Flooring Products*, Inv. No. 337-TA-443, Comm'n Notice of Final Determination of No Violation of Section 337, 2002 WL 448690, at *59, (Mar. 22, 2002); *Enercon GmbH v. Int'l Trade Comm'n*, 151 F.3d 1376 (Fed. Cir. 1998).

Literal infringement of a claim occurs when every limitation recited in the claim appears in the accused device, *i.e.*, when the properly construed claim reads on the accused device exactly.[3] *Amhil Enters., Ltd. v. Wawa, Inc.*, 81 F.3d 1554, 1562 (Fed. Cir. 1996); *Southwall Tech. v. Cardinal IG Co.*, 54 F.3d 1570, 1575 (Fed Cir. 1995).

If the accused product does not literally infringe the patent claim, infringement might be found under the doctrine of equivalents. "Under this doctrine, a product or process that does not literally infringe upon the express terms of a patent claim may nonetheless be found to infringe if there is 'equivalence' between the elements of the accused product or process and the claimed elements of the patented invention." *Warner-Jenkinson Co., Inc. v. Hilton Davis Chemical Co.*, 520 U.S. 17, 21 (1997) (citing *Graver Tank & Mfg. Co. v. Linde Air Products Co.*, 339 U.S. 605, 609 (1950)). "The determination of equivalence should be applied as an objective inquiry on an element-by-element basis."[4] *Id*. at 40.

"An element in the accused product is equivalent to a claim limitation if the differences between the two are insubstantial. The analysis focuses on whether the element in the accused device 'performs substantially the same function in substantially the same way to obtain the same result' as the claim limitation." *AquaTex Indus. v. Techniche Solutions*, 419 F.3d 1374, 1382 (Fed. Cir. 2005) (quoting *Graver Tank*, 339 U.S. at 608); *accord Absolute Software*, 659 F.3d at 1139-40.[5]

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[3] Each patent claim element or limitation is considered material and essential. *London v. Carson Pirie Scott & Co.*, 946 F.2d 1534, 1538 (Fed. Cir. 1991). If an accused device lacks a limitation of an independent claim, the device cannot infringe a dependent claim. *See Wahpeton Canvas Co. v. Frontier, Inc.*, 870 F.2d 1546, 1552 n.9 (Fed. Cir. 1989).

[4] "Infringement, whether literal or under the doctrine of equivalents, is a question of fact." *Absolute Software, Inc. v. Stealth Signal, Inc.*, 659 F.3d 1121, 1130 (Fed. Cir. 2011).

[5] "The known interchangeability of substitutes for an element of a patent is one of the express

Prosecution history estoppel can prevent a patentee from relying on the doctrine of equivalents when the patentee relinquished subject matter during the prosecution of the patent, either by amendment or argument. *AquaTex*, 419 F.3d at 1382. In particular, "[t]he doctrine of prosecution history estoppel limits the doctrine of equivalents when an applicant makes a narrowing amendment for purposes of patentability, or clearly and unmistakably surrenders subject matter by arguments made to an examiner." *Id*. (quoting *Salazar v. Procter & Gamble Co.*, 414 F.3d 1342, 1344 (Fed. Cir. 2005)).

2. Indirect Infringement

a. Induced Infringement

Section 271(b) of the Patent Act provides: "Whoever actively induces infringement of a patent shall be liable as an infringer." 35 U.S.C. § 271(b).

Under 35 U.S.C. § 271(b), whoever actively induces infringement of a patent shall be liable as an infringer. In contrast to direct infringement, liability for inducing infringement attaches only if the defendant knew of the patent and that the induced acts constituted patent infringement. *Commil USA, LLC v. Cisco Sys., Inc.*, 135 S. Ct. 1920, 1926 (2015); *see also Microsoft Corp. v. Datatern, Inc.*, 755 F.3d 899, 904 (Fed. Cir. 2014) (to prove induced infringement, patentee must show that accused inducer took an affirmative act to encourage infringement with knowledge that the induced acts constitute patent infringement). Induced infringement requires a finding that the infringer possessed a specific intent to encourage

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objective factors noted by *Graver Tank* as bearing upon whether the accused device is substantially the same as the patented invention. Independent experimentation by the alleged infringer would not always reflect upon the objective question whether a person skilled in the art would have known of the interchangeability between two elements, but in many cases it would likely be probative of such knowledge." *Warner-Jenkinson*, 520 U.S. at 36.

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another's infringement. *i4i Ltd. Partnership v. Microsoft Corp.*, 598 F.3d 831, 851 (Fed. Cir. 2010), *aff'd*, 564 U.S. 91 (2011).

b. Contributory Infringement

Section 271(c) of the Patent Act provides: "Whoever offers to sell or sells within the United States or imports into the United States a component of a patented machine, manufacture, combination or composition, or a material or apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use, shall be liable as a contributory infringer." 35 U.S.C. § 271(c).

Section 271(c) "covers both contributory infringement of system claims and method claims."[6] *Arris Grp., Inc. v. British Telecomms. PLC*, 639 F.3d 1368, 1376 (footnotes omitted). To hold a component supplier liable for contributory infringement, a patent holder must show, *inter alia*, that (a) the supplier's product was used to commit acts of direct infringement; (b) the product's use constituted a material part of the invention; (c) the supplier knew its product was especially made or especially adapted for use in an infringement" of the patent; and (d) the product is not a staple article or commodity of commerce suitable for substantial noninfringing use. *Id.*

[6] "Claims which recite a 'system,' 'apparatus,' 'combination,' or the like are all analytically similar in the sense that their claim limitations include elements rather than method steps. All such claims can be contributorily infringed by a component supplier." *Arris*, 639 F.3d at 1376 n.8.

C. Validity

One cannot be held liable for practicing an invalid patent claim. *See Pandrol USA, LP v. AirBoss Railway Prods., Inc.*, 320 F.3d 1354, 1365 (Fed. Cir. 2003). Nevertheless, each claim of a patent is presumed to be valid, even if it depends from a claim found to be invalid. 35 U.S.C. § 282; *DMI Inc. v. Deere & Co.*, 802 F.2d 421 (Fed. Cir. 1986).

A respondent that has raised patent invalidity as an affirmative defense must overcome the presumption by "clear and convincing" evidence of invalidity. *Checkpoint Systems, Inc. v. United States Int'l Trade Comm'n*, 54 F.3d 756, 761 (Fed. Cir. 1995).

1. Anticipation

Anticipation under 35 U.S.C. § 102 is a question of fact. *z4 Techs., Inc. v. Microsoft Corp.*, 507 F.3d 1340, 1347 (Fed. Cir. 2007). Section 102 provides that, depending on the circumstances, a claimed invention may be anticipated by variety of prior art, including publications, earlier-sold products, and patents. *See* 35 U.S.C. § 102 (*e.g.*, section 102(b) provides that one is not entitled to a patent if the claimed invention "was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States").

The general law of anticipation may be summarized, as follows:

> A reference is anticipatory under § 102(b) when it satisfies particular requirements. First, the reference must disclose each and every element of the claimed invention, whether it does so explicitly or inherently. *Eli Lilly & Co. v. Zenith Goldline Pharms., Inc.*, 471 F.3d 1369, 1375 (Fed. Cir. 2006). While those elements must be "arranged or combined in the same way as in the claim," *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1370 (Fed. Cir. 2008), the reference need not satisfy an *ipsissimis verbis* test, *In re Bond*, 910 F.2d 831, 832-33 (Fed.Cir.1990). Second, the reference must "enable one of ordinary skill in the art to make the invention without undue experimentation." *Impax Labs., Inc. v. Aventis Pharms. Inc.*, 545 F.3d 1312, 1314 (Fed. Cir. 2008); *see In re LeGrice*, 49 C.C.P.A. 1124,

> 301 F.2d 929, 940-44 (1962). As long as the reference discloses all of the claim limitations and enables the "subject matter that falls within the scope of the claims at issue," the reference anticipates -- no "actual creation or reduction to practice" is required. *Schering Corp. v. Geneva Pharms., Inc.*, 339 F.3d 1373, 1380-81 (Fed. Cir. 2003); *see In re Donohue*, 766 F.2d 531, 533 (Fed.Cir.1985). This is so despite the fact that the description provided in the anticipating reference might not otherwise entitle its author to a patent. *See Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1562 (Fed. Cir. 1991) (discussing the "distinction between a written description adequate to support a claim under § 112 and a written description sufficient to anticipate its subject matter under § 102(b)").

In re Gleave, 560 F.3d 1331, 1334 (Fed. Cir. 2009).

2. Obviousness

Under section 103 of the Patent Act, a patent claim is invalid "if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains."[7] 35 U.S.C. § 103. While the ultimate determination of whether an invention would have been obvious is a legal conclusion, it is based on "underlying factual inquiries including: (1) the scope and content of the prior art; (2) the level of ordinary skill in the art; (3) the differences between the claimed invention and the prior art; and (4) objective evidence of nonobviousness." *Eli Lilly and Co. v. Teva Pharmaceuticals USA, Inc.*, 619 F.3d 1329 (Fed. Cir. 2010).

The objective evidence, also known as "secondary considerations," includes commercial success, long felt need, and failure of others. *Graham v. John Deere Co.*, 383 U.S. 1, 13-17 (1966); *Dystar Textilfarben GmbH v. C.H. Patrick Co.*, 464 F.3d 1356, 1361 (Fed. Cir. 2006).

[7] The standard for determining whether a patent or publication is prior art under section 103 is the same as under 35 U.S.C. § 102, which is a legal question. *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1568 (Fed. Cir. 1987).

"[E]vidence arising out of the so-called 'secondary considerations' must always when present be considered en route to a determination of obviousness." *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1538 (Fed. Cir. 1983). Secondary considerations, such as commercial success, will not always dislodge a determination of obviousness based on analysis of the prior art. *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 426 (2007) (commercial success did not alter conclusion of obviousness).

"One of the ways in which a patent's subject matter can be proved obvious is by noting that there existed at the time of invention a known problem for which there was an obvious solution encompassed by the patent's claims." *KSR*, 550 U.S. at 419-20. "[A]ny need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed." *Id*.

Specific teachings, suggestions, or motivations to combine prior art may provide helpful insights into the state of the art at the time of the alleged invention. *Id*. at 420. Nevertheless, "an obviousness analysis cannot be confined by a formalistic conception of the words teaching, suggestion, and motivation, or by overemphasis on the importance of published articles and the explicit content of issued patents. The diversity of inventive pursuits and of modern technology counsels against limiting the analysis in this way." *Id*. "Under the correct analysis, any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed." *Id*. A "person of ordinary skill is also a person of ordinary creativity." *Id*. at 421.

Nevertheless, "the burden falls on the patent challenger to show by clear and convincing evidence that a person of ordinary skill in the art would have had reason to attempt to make the composition or device, or carry out the claimed process, and would have had a reasonable

expectation of success in doing so." *PharmaStem Therapeutics, Inc. v. ViaCell, Inc.*, 491 F.3d 1342, 1360 (Fed. Cir. 2007); *see KSR*, 550 U.S. at 416 (a combination of elements must do more than yield a predictable result; combining elements that work together in an unexpected and fruitful manner would not have been obvious).[8]

3. Written Description

The issue of whether a patent is invalid for failure to meet the written description requirement of 35 U.S.C. § 112(a) is a question of fact. *Bard Peripheral Vascular, Inc. v. W.L. Gore & Assocs., Inc.*, 670 F.3d 1171, 1188 (Fed. Cir. 2012). A patent's written description must clearly allow persons of ordinary skill in the art to recognize that the inventor invented what is claimed. The test for sufficiency of a written description is "whether the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date." *Id.* (quoting *Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (*en banc*)).

4. Indefiniteness

The definiteness requirement of 35 U.S.C. § 112 ensures that the patent claims particularly point out and distinctly claim the subject matter that the patentee regards to be the invention. *See* 35 U.S.C. § 112(b); *Metabolite Labs., Inc. v. Lab. Corp. of Am. Holdings*, 370 F.3d 1354, 1366 (Fed. Cir. 2004). If a claim's legal scope is not clear enough so that a person of ordinary skill in the art could determine whether or not a particular product infringes, the claim is indefinite, and is, therefore, invalid. *Geneva Pharm., Inc. v. GlaxoSmithKline PLC*, 349 F.3d

[8] Further, "when the prior art teaches away from combining certain known elements, discovery of a successful means of combining them is more likely to be nonobvious." *KSR*, 550 U.S. at 416 (citing *United States v. Adams*, 383 U.S. 39, 52 (1966)).

1373, 1384 (Fed. Cir. 2003).[9]

Thus, it has been found that:

> When a proposed construction requires that an artisan make a separate infringement determination for every set of circumstances in which the composition may be used, and when such determinations are likely to result in differing outcomes (sometimes infringing and sometimes not), that construction is likely to be indefinite.

Halliburton Energy Servs. v. M-I LLC, 514 F.3d 1244, 1255 (Fed. Cir. 2008).

A patent is not indefinite if the claims, "viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty." *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 910 (2014). "If, after a review of the intrinsic and extrinsic evidence, a claim term remains ambiguous, the claim should be construed so as to maintain its validity." *Certain Consumer Electronics and Display Devices With Graphics Processing and Graphics Processing Units Therein*, Inv. No. 337-TA-932, Order No. 20 (Apr. 2, 2015) (quoting *Phillips*, 415 F.3d at 1327).

The burden is on the accused infringer to come forward with clear and convincing evidence to prove invalidity. *See Young v. Lumenis, Inc.*, 492 F.3d 1336, 1344 (Fed. Cir. 2007) ("A determination that a patent claim is invalid for failing to meet the definiteness requirement in 35 U.S.C. § 112, ¶ 2 is a legal question reviewed de novo.").

D. Enforceability

1. *Kessler* Doctrine

The *Kessler* doctrine "preclude[s] assertions of a patent against even post-judgment activity if the earlier judgment held that 'essentially the same' accused activity did not infringe

[9] Indefiniteness is a question of law. *IGT v. Bally Gaming Int'l, Inc.*, 659 F.3d 1109 (Fed. Cir. 2011).

that patent." *SimpleAir, Inc. v. Google LLC*, 884 F.3d 1160, 1170 (Fed. Cir. 2018). "*Kessler*'s rationale is that the accused activity, held in the earlier case not to infringe the patent, acquires a limited trade right to continue being practiced 'without molestation' by the patentee or its privies." *Id.* (citing *Kessler v. Eldred*, 206 U.S. 285, 290 (1907)).

2. Issue Preclusion

Issue preclusion protects a party from having to litigate issues that have been fully and fairly tried in a previous action and adversely resolved against a party-opponent. *Pharmacia & Upjohn Co. v. Mylan Pharm., Inc*., 170 F.3d 1373, 1379 (Fed. Cir. 1999).

In *Innovad Inc. v. Microsoft Corp.*, the Federal Circuit explained

> Under the doctrine of issue preclusion, also called collateral estoppel, a judgment on the merits in a first suit precludes relitigation in a second suit of issues actually litigated and determined in the first suit. *In re Freeman*, 30 F.3d 1459, 1465, 31 USPQ2d 1444, 1448 (Fed. Cir. 1994) (citing *Lawlor v. Nat'l Screen Serv. Corp.*, 349 U.S. 322, 326, 75 S.Ct. 865, 99 L.Ed. 1122 (1955)). Issue preclusion operates only if: (1) the issue is identical to one decided in the first action; (2) the issue was actually litigated in the first action; (3) resolution of the issue was essential to a final judgment in the first action; and (4) the party against whom estoppel is invoked had a full and fair opportunity to litigate the issue in the first action.

260 F.3d 1326, 1334 (Fed. Cir. 2001).

E. Domestic Industry

A violation of section 337(a)(1)(B), (C), (D), or (E) can be found "only if an industry in the United States, with respect to the articles protected by the patent, copyright, trademark, mask work, or design concerned, exists or is in the process of being established." 19 U.S.C. § 1337(a)(2). Section 337(a) further provides:

> (3) For purposes of paragraph (2), an industry in the United States shall be considered to exist if there is in the United States, with respect to the articles protected by the patent, copyright, trademark, mask work, or design concerned—
>
> (A) significant investment in plant and equipment;

> (B) significant employment of labor or capital; or
>
> (C) substantial investment in its exploitation, including engineering, research and development, or licensing.

19 U.S.C. § 1337(a)(3).

These statutory requirements consist of an economic prong (which requires certain activities)[10] and a technical prong (which requires that these activities relate to the intellectual property being protected). *Certain Stringed Musical Instruments and Components Thereof*, Inv. No. 337-TA-586, Comm'n Op. at 13 (May 16, 2008) ("*Stringed Musical Instruments*"). The burden is on the complainant to show by a preponderance of the evidence that the domestic industry requirement is satisfied. *Certain Multimedia Display and Navigation Devices and Systems, Components Thereof, and Products Containing Same*, Inv. No. 337-TA-694, Comm'n Op. at 5 (July 22, 2011).

"With respect to section 337(a)(3)(A) and (B), the technical prong is the requirement that the investments in plant or equipment and employment in labor or capital are actually related to 'articles protected by' the intellectual property right which forms the basis of the complaint." *Stringed Musical Instruments* at 13-14. "The test for satisfying the 'technical prong' of the

[10] The Commission practice is usually to assess the facts relating to the economic prong at the time that the complaint was filed. *See Certain Coaxial Cable Connectors and Components Thereof and Products Containing Same*, Inv. No. 337-TA-560, Comm'n Op. at 39 n.17 (Apr. 14, 2010) ("We note that only activities that occurred before the filing of a complaint with the Commission are relevant to whether a domestic industry exists or is in the process of being established under sections 337(a)(2)-(3).") (citing *Bally/Midway Mfg. Co. v. U.S. Int'l Trade Comm'n*, 714 F.2d 1117, 1121 (Fed. Cir. 1983)). In some cases, however, the Commission will consider later developments in the alleged industry, such as "when a significant and unusual development occurred after the complaint has been filed." *See Certain Video Game Systems and Controllers*, Inv. No. 337-TA-743, Comm'n Op., at 5-6 (Jan. 20, 2012) ("[I]n appropriate situations based on the specific facts and circumstances of an investigation, the Commission may consider activities and investments beyond the filing of the complaint.").

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industry requirement is essentially same as that for infringement, i.e., a comparison of domestic products to the asserted claims." *Alloc, Inc. v. Int'l Trade Comm'n*, 342 F.3d 1361, 1375 (Fed. Cir. 2003). "With respect to section 337(a)(3)(C), the technical prong is the requirement that the activities of engineering, research and development, and licensing are actually related to the asserted intellectual property right." *Stringed Musical Instruments* at 13.

With respect to the economic prong, and whether or not section 337(a)(3)(A) or (B) is satisfied, the Commission has held that "whether a complainant has established that its investment and/or employment activities are significant with respect to the articles protected by the intellectual property right concerned is not evaluated according to any rigid mathematical formula." *Certain Printing and Imaging Devices and Components Thereof*, Inv. No. 337-TA-690, Comm'n Op. at 27 (Feb. 17, 2011) (citing *Certain Male Prophylactic Devices*, Inv. No. 337 TA-546, Comm'n Op. at 39 (Aug. 1, 2007)). Rather, the Commission examines "the facts in each investigation, the article of commerce, and the realities of the marketplace." *Id.* "The determination takes into account the nature of the investment and/or employment activities, 'the industry in question, and the complainant's relative size.'" *Id.* (citing *Stringed Musical Instruments* at 26). Moreover, "[t]here is no Commission precedent supporting the proposition that a comparison of domestic and foreign producers' assets must be performed." *Male Prophylactic Devices* at 43 n.15. There is no minimum monetary expenditure that a complainant must demonstrate, and there is no need to define or quantify an industry in absolute mathematical terms. *See id.* at 39 ("[T]here is no mathematical threshold test."). When a complainant conducts operations abroad, a comparative analysis of a complainant's domestic expenditures versus its foreign expenditures, or an analysis of the value added by the domestic activities, is conducted to determine the significance of the domestic activities. *See, e.g.*, *Certain*

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Carburetors and Prod. Containing Such Carburetors ("*Carburetors*"), Inv. No. 337-TA-1123, Comm'n Op. at 8–9, 19 (Oct. 28, 2019).

V. The '393 Patent

A. Overview of the '393 Patent

Asserted U.S. Patent No. 10,391,393 ("the '393 patent") is titled, "Game Controller with Structural Bridge." JX-0001 ('393 patent). The '393 patent issued on August 27, 2019, and the named inventors are Fraser Townley, Kelly Gamble and Daniel P. Dooley. *Id.*

Gamevice asserts independent claims 1, 8 and 12 and dependent claims 2-4, 6-7, 17 and 18 of the '393 patent. These claims read as follows:[11]

> 1. A combination comprising:
>
> a computing device;
>
> a pair of confinement structures, the pair of confinement structures interacting with the computing device and adjacent at least two opposing sides of the computing device, but not more than three sides of the sides of the computing device, each of the pair of confinement structures comprising a communication link, each of the communication links configured for electronic communication with the computing device;
>
> a rigid structural bridge disposed between and secured to the pair of confinement structures, the rigid structural bridge comprising a passageway between the pair of confinement structures, the passageway promotes electrical communication between the communication link of a first confinement structure of the pair of confinement structures and the computing device, the passageway further promotes electrical communication between the communication link of a second confinement structure of the pair of confinement structures and the computing device; and
>
> a pair of electronic game control modules, each electronic game control module of the pair of electronic game control modules is secured to and interacts with a corresponding confinement structure of the pair of confinement structures, each electronic game control module in

[11] Claim 17 depends upon claim 16, which is therefore included for reference.

electronic communication with the communication link of its corresponding confinement structure, wherein each electronic game control module is a separate and distinct structure from each of their corresponding confinement structures, forming no structural portion of their corresponding confinement structures, and in which each of the pair of confinement structures are separate and distinct structures from the structural bridge, forming no structural portion of the structural bridge.

2. The combination of claim 1, in which the rigid structural bridge supports electronics associated with the computing device.

3. The combination of claim 2, in which the computing device further comprising a back, the back provides an internal surface, an external surface and cooperates with the at least two opposing sides of the computing device.

4. The combination of claim 3, in which the rigid structural bridge cooperates with the back of the computing device.

6. The combination of claim 4, in which the computing device comprises an electronic display screen, and wherein at least one electronic game control module of the pair of electronic game control modules passes signals through its corresponding communication link to the computing device, the signals passed to the computing device controlling images displayed on the electronic display screen of the computing device.

7. The combination of claim 2, in which the electronics supported by the rigid structural bridge is a communication module associated with the computing device.

8. A combination comprising:

a structural bridge, the structural bridge having a first end associated with a first electronic game control module of a pair of electronic game control modules and a second end associated with a second electronic game control module of the pair of electronic game control modules, the structural bridge configured for adaptation to a computing device, the computing device having a length greater than its width, the structural bridge accommodates the length of the computing device, and in which the structural bridge provides a void, the void disposed between the first end of the structural bridge and the second end of the structural bridge, the void having right, left, upper, and lower sides, each side of the void communicating with a material of the structural bridge.

12. A combination comprising:

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a first electronic game control module of a pair of electronic game control modules, and a second electronic game control module of the pair of electronic game control modules each the first and the second electronic game control modules includes at least a plurality of instructional input devices, and at least one of the first and the second electronic game control modules further comprising a restraint, the restraint providing at least a spring member; and

a structural bridge interposed between said first and second electronic game control module, said structural bridge comprising a first side, said first side of said structural bridge in contact adjacency with said first electronic game control module, said structural bridge further comprising a second side, said second side of said structural bridge in contact adjacency with said second electronic game control module, said structural bridge still further comprising a retention mechanism, the retention mechanism providing at least a boss, an interaction of the spring member of the restraint with the boss of the retention mechanism couples the structural bridge to at least one of the first and the second electronic game control modules.

16. An apparatus comprising:

a first means for attaching an input device to a computing device, said computing device provides a central processing unit and plurality of sides, each of the plurality of sides cooperating with the electronic display screen of said computing device; and

a second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device, said virtual object provided by an electronic game, said electronic game interacting with said central processing unit, and wherein said second means is accommodated by said input device.

17. The apparatus of claim 16, in which the computing device having a length greater than its width, and wherein the first means for attaching the input device to a computing device comprising:

a pair of confinement structures, the pair of confinement structures interacting with the computing device and adjacent at least two opposing sides of the computing device, the at least two opposing sides adjacent the electronic display screen and define end points of the length of the computing device, the pair of confinement structures adapt to and are in pressing contact with said end points of the length of the computing device, each of the pair of confinement structures comprising a communication link, each of the communication links configured for electronic communication with the central processing unit;

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> a rigid structural bridge disposed between and secured to the pair of confinement structures, the rigid structural bridge includes at least a passageway between the pair of confinement structures, the passageway promotes electrical communication between the communication link of a first confinement structure of the pair of confinement structures and the computing device, the passageway further promotes electrical communication between the communication link of a second confinement structure of the pair of confinement structures and the computing device; and
>
> wherein the input device is a pair of control modules, each control module of the pair of control modules mechanically interacting with a corresponding confinement structure of the pair of confinement structures, wherein each control module is a separate and distinct structure from the pair of confinement structures, forming no structural portion of the pair of confinement structures, and in which each of the pair of confinement structures are separate and distinct structures from the structural bridge, forming no structural portion of the structural bridge.
>
> 18. The apparatus of claim 17, in which the second means for controlling movement of the virtual object displayed on said electronic display comprising:
>
> each control module of the pair of control modules is in electronic communication with the communication link of its corresponding confinement structure, each of the pair of control modules provides a plurality of instructional input devices, wherein said instructional input devices are adjacent each of the at least two opposing sides of the computing device, and wherein the instructional input devices in conjunction with the central processing unit control movement of the virtual object displayed on the electronic display screen.

Id. at col. 17, ln. 53 – col. 18, ln. 62, col. 19, ln. 24 – col. 21, ln. 2.

Gamevice relies on claims 8-11 and 19-22 of the ’393 patent to satisfy the technical prong of the domestic industry requirement. Claims 9-11 and 19-22 read as follows:

> 9. The device of claim 8, in which the first of the pair of electronic game control modules further comprises a tensioning mechanism, a bottom cover, wherein the bottom cover provides a position guide, and in which the tensioning mechanism comprises:
>
> an attachment boss communicating with the structural bridge;

an attachment support cooperating with the attachment boss, the attachment support in cooperation with the attachment boss secures the structural bridge, the structural bridge disposed between the attachment boss and the attachment support; and

a biasing structure communicating with an attachment stay, the biasing structure provides tension between the structural bridge and the second of the pair of electronic game control modules.

10. The device of claim 9, in which the attachment stay comprises a guide aperture interacting with the position guide, the interaction of the guide aperture with the position guide maintains alignment between the structural bridge and the second of the pair of electronic game control modules.

11. The device of claim 9, in which at least one of the pair of electronic game control modules is a video game control module, and in which the video game control module passes signals to the computing device, the signals control images displayed on an electronic display screen of the computing device.

19. The apparatus of claim 16, in which the computing device having a length greater than its width, and wherein the first means for attaching the input device to a computing device comprising:

the input device in electronic communication with the central processing unit, the input device providing a pair of control modules, the pair of control modules are adjacent to and confine the computing device on at least two opposing sides of the computing device, the at least two opposing sides adjacent the electronic display screen define end points of the length of the computing device, the pair of control modules each adapt to and are in pressing contact with said opposing end points of the length of the computing device; and

a structural bridge, the structural bridge secures the pair of control modules one to the other, and wherein a first of the pair of control modules comprising a retention mechanism communicating with the structural bridge, and wherein the retention mechanism secures the structural bridge to the first of the pair of control modules, such that the structural bridge accommodates the length of the computing device, and in which the structural bridge provides a void in the mid-section of the structural bridge, the void having right, left, upper, and lower sides, each side communicating with a material of the structural bridge.

20. The apparatus of claim 19, in which the second means for controlling a movement of a virtual object displayed on said electronic display comprising:

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a communication link, the communication link facilitates communication between the pair of control modules and the central processing unit, each of the pair of control modules provides instructional input devices, wherein said instructional input devices are adjacent each of the at least two opposing sides of the computing device, wherein the instructional input devices in conjunction with the central processing unit control movement of the virtual object displayed on the electronic display screen.

21. The apparatus of claim 16, in which the computing device having a length greater than its width, and wherein the first means for attaching the input device to a computing device comprising:

the input device in electronic communication with the central processing unit of the computing device, the input device providing a pair of control modules a first control module of a pair of control modules, and a second control module of the pair of control modules, at least one of the first and the second control modules further comprising a fastening latch;

a structural bridge disposed between said first and second control module, said structural bridge comprising a first side, said first side of said structural bridge in contact adjacency with said first control module, said structural bridge further comprising a second side, said second side of said structural bridge in contact adjacency with said second control module, said structural bridge still further comprising a retention member, the retention member interacts with the fastening latch, the interaction of the fastening latch with the retention member restrains the structural bridge to a control module of the pair of control modules, and the pair of control modules to the computing device.

22. The apparatus of claim 21, in which the second means for controlling a movement of the virtual object displayed on said electronic display comprising:

a communication link, the communication link facilitates communication between the pair of control modules and the central processing unit of the computing device; and

each the first and the second control modules of the pair of control modules comprising a plurality instructional input devices, and wherein the plurality of instructional input devices in conjunction with the central processing unit control movement of the virtual object displayed on the electronic display screen.

Id. at col. 18, ln. 63 – col. 19, ln. 22, col. 21, ln. 3 – col. 22, ln. 28 (as corrected by JX-0003 (Certificate of Correction)).

B. Claim Construction

1. Level of Ordinary Skill in the Art

Gamevice contends a person of ordinary skill in the art for the '393 patent has an undergraduate degree in mechanical engineering and two years of industry or research experience in video game, game-controller, and/or remote-controller technology, where additional relevant experience can compensate for a lack of relevant education, and *vice versa*. *See* Compl. Br. at 8-9 (citing CX-0001C (Singhose DWS) at Q/A 69-79). Nintendo did not address the level of ordinary skill in the art in its pre-hearing brief. *See* Resps. Pre-Hearing Br. at 24-60. By not addressing this issue in its pre-hearing brief, Nintendo is precluded from addressing it now. *See* G.R. 7(c).

The administrative law judge adopts Gamevice's proposal, which is that a person of ordinary skill in the art for the '393 patent an undergraduate degree in mechanical engineering and two years of industry or research experience in video game, game-controller, and/or remote-controller technology, where additional relevant experience can compensate for a lack of relevant education, and *vice versa*. This is in accordance with the education level of the inventors, as well as others of ordinary skill in this art. *See* CX-0001C (Singhose DWS) at Q/A 70, 74. Nintendo's proposal does not differ greatly, and its expert did not provide substantive explanation justifying his proposal. *See* RX-0060C (Stern DWS) at Q/A 52-56; RX-0059C (Cameron DWS) at Q/A 41-46.

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2. Disputed Constructions[12]

a. "[a pair of] confinement structures" (claims 1, 17 and 18)

Below is a chart showing the parties' proposed claim constructions.

Gamevice's Proposed Construction	Nintendo's Proposed Construction	The Staff's Proposed Construction
[a pair of] components that hold a computing device	Subject to 35 U.S.C. § 112(f). **Function Claim 1:** interacting with the computing device **Function Claim 17 and 18:** interacting with the computing device and adapting to and being in pressing contact with the end points of the length of the computing device **Structure:** Element 316 in Figs. 16-23, and 25; the associated description at 9:21-11:17; and equivalents thereof.	Subject to 35 U.S.C. § 112(f). **Function:** confining the computing device **Structure:** (1) side structures 116 and 118 which form a u-shaped structure 128 with structural bridge 124 to nest a computing device (Fig. 1, 4:46-52, 5:22-31); (2) control modules that attach to a structural bridge using a confinement boss, retention member, detent, and catch to confine a computing device (Fig. 14-15, Col. 8:38-49); (3) confinement structures that attach to a structural bridge using an adjustable fastening mechanism that provides "sufficient compressive load [] on the computing device [] to securely hold the computing device between the pair of confinement structures" (Figs. 16-18, Col. 9:39-53, Col. 9:60-62, Col. 10:8-20);

[12] This initial determination addresses only the disputed claim terms identified by the parties as needing construction. *See* Comprehensive Joint Outline of Issues (EDIS Doc. No. 732623) ("GR11 Filing"). The parties identified the claim terms for construction in a joint filing required by Ground Rule 11, which provides: "On the same day the initial posthearing briefs are due, the parties shall file a comprehensive joint outline of all of the issues, including sub-issues, to be decided in the final Initial Determination. Exemplary issues and sub-issues include . . . disputed claim terms (The claim terms briefed by the parties must be identical. . .)." Ground Rule 11 (emphasis original) (attached to Order No. 2 (Ground Rules)).

		(4) control modules that attach to a structural bridge using a tensioning mechanism 446 or 546 (as shown in Figs. 26, 37, and 38) to snugly accommodate the length of a computing device (Figs. 26-29, 37, 38; Col. 12:4-14:18; Col. 15:63-16:27); and (5) equivalents thereof.

See JX-0014 at 2-3.

The claim term "[a pair of] confinement structures" appears in independent claim 1 and dependent claims 17 and 18 of the '393 patent. JX-0001 ('393 patent) at col. 17, ln. 53 – col. 18, ln. 21, col. 20, ln. 19 – col. 21, ln. 2.

Gamevice argues, in part:

> In the 1111 Investigation, Gamevice and Nintendo disputed the construction of "confinement structures." There, the ALJ rejected Nintendo's effort to subject the term to means-plus-function treatment and instead construed this term according to its plain meaning—"components that hold a computing device"—as Gamevice now proposes. *See* JX-0015 at 23-32. This term in the '393 patent is presumed to carry the same meaning. *See Omega*, 334 F.3d at 1334.
>
> Nintendo, however, repeats its rejected § 112(f) position, joined by OUII, although they cannot agree on both the functions and the corresponding structures that should apply to this term. *See* JX-0014 at 2-3. Those arguments should be rejected. In contrast to the "first means" and "second means" terms in claim 16, this term does not recite the word "means," raising the presumption that it is not subject to § 112(f) treatment. *See Williamson v. Citrix Online*, LLC, 792 F.3d 1339, 1349 (Fed. Cir. 2015) (en banc); CX-0001C, Singhose WS Q/A 116. Indeed, during prosecution of the '393 patent, the examiner and the applicant addressed claim interpretation under 35 U.S.C. § 112(f) with respect to only the "first means" and "second means" elements, but never the "confinement structures." *See* JX-0002, '393 patent file history at 349-50, 390.
>
> The term "confinement structures" should be given its plain meaning in the same way as the claimed "structural bridge" and "passageway," both of which OUII and Nintendo agree are *not* means-plus-function terms. *See* CX-0001C, Singhose WS Q/A 122; JX-0014 at 6-7. Nintendo and OUII fail to overcome the presumption against § 112(f) treatment here because this term, properly read in the context of the surrounding claim language and specification, recites sufficiently definite

structure for confining the computing device. *See Williamson*, 792 F.3d at 1349. As the ALJ found in the 1111 Investigation, the claims here indicate that "confinement structures" are physical components of the claimed combination that hold the computing device because (1) the claims require them to be "adjacent at least two opposing sides" of the computing device, (2) the "confinement structures" provide a "communication link", and (3) the "confinement structures" are "separate and distinct structure[s]" from the "electronic game control modules" and the "structural bridge." *See* JX-0015 at 28-29; JX-0001 at claims 1, 17; CX-0001C, Singhose WS Q/A 95-97. Claims 1 and 17 of the '393 patent further add that the "pair of confinement structures" are "adjacent" to no more than three sides of the computing device. JX-0001 at claim 1. Claim 17 further adds that the "pair of confinement structures" adapt to and are in pressing contact with the end points of the length of the computing device. *Id. at* claim 17. The claims further add that the "confinement structures" interact with and are secured to the electronic game control modules. *See id. at* claims 1, 17. Thus, the claims sufficiently describe the physical structure of the "pair of confinement structures" as a pair of components that hold a computing device. *See* CX-0001C, Singhose WS Q/A 96-97.

As the ALJ further noted in the 1111 Investigation, *see* JX-0015 at 29-31, the drawings and specification confirm the structural attributes of the claimed "confinement structures," describing the pair of confinement structures 316 as physical components that hold computing device 302, are adjacent to its opposing sides, and are secured to the separate and distinct electronic game control modules 252 and structural bridge 322. *See* JX-0001 at Figs. 16-23, 9:33-67, 10:54-64, 11:1-7; CX-0001C, Singhose WS Q/A 99-103; CDX-0001C.11-13. Moreover, the pair of confinement structures 316 include signals input lands 342 (the claimed "communication links"), and are associated with other structural components like solid connection 324, slip fit 326, fastening mechanism 320, anchor member 330, attachment member 332, controller docking pins 334, computing device interface feature 338, and computing device cradle 336. *See* JX-0001 at 9:60-10:48; CX-0001C, Singhose WS Q/A 104. Nintendo's expert, Dr. Stern, fails to credit the patent's teaching of specific structural attributes of the claimed "confinement structures." *See* CX-0001C, Singhose WS Q/A 121.

Notwithstanding Nintendo's argument that there are an infinite number of components that can "hold a computing device," Gamevice's proposed construction represents a definite class of structures, just like "filters," "brakes," "clamp," "screwdriver," and "locks," all of which have an infinite number of sizes, shapes, and configurations. *See Apex Inc. v. Raritan Computer, Inc.*, 325 F.3d 1364, 1373 (Fed. Cir. 2003); CX-0001C at Q/A 132; CX-0182C, Singhose Rebuttal WS Q/A 417-425. Indeed, courts have held that similar claim terms coming in an infinite number of sizes, shapes, and configurations do *not* invoke § 112(f) treatment, including "modernizing device," "computing unit," "detent mechanism," "digital detector," "reciprocating member," "connector assembly," "sealingly connected joints," and "eyeglass hanger member." *See Inventio AG v.*

Thyssenkrupp Elevator Americas Corp., 649 F.3d 1350, 1357-60 (Fed. Cir. 2011); *CCS Fitness, Inc. v. Brunswick Corp*., 288 F.3d 1359, 1369-70 (Fed. Cir. 2002); *Watts v. XL Sys., Inc.*, 232 F.3d 877, 881 (Fed. Cir. 2000); *Al-Site Corp. v. VSI Int'l, Inc.*, 174 F.3d 1308, 1318-19 (Fed. Cir. 1999); *Personalized Media Commc'ns, LLC v. Int'l Trade Comm'n*, 161 F. 3d 696, 704-05 (Fed. Cir. 1998); *Greenberg v. Ethicon Endo-Surgery, Inc.*, 91 F.3d 1580, 1583-84 (Fed. Cir. 1996).

OUII's proposed construction is different from Nintendo's, but it is still incorrect. In particular, OUII identifies corresponding structures for the claimed "confinement structures" that contradict the express claim limitations. For example, the claims require "a pair of [electronic game] control modules" that are "separate and distinct structure[s]" from the "confinement structures," but OUII's corresponding structures (2) and (4) include the "control modules" as ***part of*** the "confinement structures." *See* JX-0001 at claims 1, 17; JX-0014 at 2-3; CDX-0001C at 14; CX-0001C, Singhose WS Q/A 105, 108-109. Similarly, although the claims recite a "structural bridge" that is a "separate and distinct structure" from the "confinement structures," OUII's corresponding structure (1) for the "confinement structures" is ***part of*** the structural bridge, namely "side structures 116 and 118 which form a u-shaped structure 128 with structural bridge." *See* JX-0001 at claims 1, 17; JX-0014 at 2; CDX-0001C at 14; CX-0001C, Singhose WS Q/A 107.

Further, OUII's corresponding structure (3) improperly imports limitations from the specification's embodiments into the claim. *See Phillips*, 415 F.3d at 1323. It imports the functional language, "provides 'sufficient compressive load [] on the computing device [] to securely hold the computing device between the pair of confinement structures'." CX-0001C at Q/A 110. It also imports an "adjustable fastening mechanism" that the specification does not clearly link to OUII's identified function ("confining the computing device"), *see B. Braun Med., Inc. v. Abbott Labs*., 124 F.3d 1419, 1424 (Fed. Cir. 1997), and that is unnecessary to perform this function, *see Northrop Grumman Corp. v. Intel Corp.*, 325 F.3d 1346, 1352 (Fed. Cir. 2003). Instead, the '393 patent discusses that fastening mechanism 320 is merely a preferred feature of one embodiment, *see* JX-0001 at 9:54-59; CX-0001C at Q/A 111, implying that it is not necessary. *See Therasense, Inc. v. Becton, Dickinson & Co.*, 593 F.3d 1289, 1295-96 (Fed. Cir. 2010); *Callaway Golf Co. v. Acushnet Co.*, 576 F.3d 1331, 1346–47 (Fed. Cir. 2009); *Halliburton Energy Servs., Inc. v. M–I LLC*, 514 F.3d 1244, 1251 (Fed. Cir. 2008); *Cordis Corp. v. Medtronic AVE, Inc*., 339 F.3d 1352, 1357 (Fed. Cir. 2003). Moreover, the '393 patent contemplates other components like solid connection 324 and slip fit 326 to secure the structural bridge 322 to the pair of confinement structures 316. *See* JX-0001 at 9:62-67; CX-0001C at Q/A 111. Finally, instead of linking it to the function of confining the computing device, the specification links fastening mechanism 320 to an unclaimed expansion-contraction function. *See* JX-0001 at 10:8-11; CX-0001C at Q/A 111.

> Nintendo's proposed construction is similarly incorrect. It too improperly subjects this claim term to § 112(f) treatment by mischaracterizing the description of structural attributes in the claims as functional language. *See* CX-0001C, Singhose WS Q/A 116-120. Further, its arguments based on slide support confinement structure 472 and sizing toggle confinement structure 470 are meritless because those components are irrelevant to this claim term. *See* CX-0001C, Singhose WS Q/A 123. Moreover, contrary to the presumption that this term has the same meaning across the claims, *Paragon Solutions, LLC v. Timex Corp.*, 566 F.3d 1075, 1087 (Fed. Cir. 2009), Nintendo incorrectly assigns different functions for this term in claims 1 and 17. *See* JX-0014 at 2; CX-0001C, Singhose WS Q/A 112, 124. Nintendo's assigned function for claim 1 improperly reads out the claimed word "confinement" in favor of the broader phrase "interacting with the computing device," which actually describes a *structural* interrelationship (physical proximity) of the "confinement structures" with the computing device. *See* JX-0014 at 2; CX-0001C at Q/A 113, 120, 124-126; CDX-0001C.31. Nintendo then ignores the structures expressly recited in claim 1 to perform the function of interacting with the computing device, for example the "confinement structures" being "adjacent at least two opposing sides of the computing device, but not more than three sides of the sides of the computing device." *See* CX-0001C at Q/A 127. In addition to these same errors as with claim 1, Nintendo's assigned function for claim 17 improperly includes *structural* attributes of the claimed "confinement structures"—adapting to and being in pressing contact with the end points of the length of the computing device. *See* JX-0014 at 2; CX-0001C at Q/A 114, 124. Finally, although Nintendo's proposed construction does not include an adjustable fastening mechanism, *see* JX-0014 at 2, its expert, Dr. Stern, improperly imports the fastening mechanism 320 into the corresponding structure, thus erring in the same manner as OUII, as discussed above. *See* CX-0001C at Q/A 128; CX-0182C at Q/A 426-427. In this regard, he contradicts Nintendo's other expert, Dr. Cameron. *See* RX-0059C at Q/A 85, 334, 459, 464, 491.

Compl. Br. at 13-18.[13]

Nintendo argues, in part:

> The ALJ construed "[pair of] confinement structures" in the 1111 Investigation as "components that hold a computing device." Gamevice adopts this construction, but both Staff and Nintendo contend that "confinement structures" is a means-plus-function term. JX-14.3–4. Nintendo proposes the functions "interacting with the computing device" (claims 1 and 17) and "adapting to and being in pressing contact with the end points of the length of the computing device" (claim 17) based on the functions recited in the claims themselves. JX-14.3. The

[13] Emphasis in original unless noted otherwise.

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specification discloses adequate corresponding structure, and, as a result, the term does not render the claims indefinite. RX-60C, Q74–118; RX-1824C, Q40–60.

* * *

The presumption against means-plus-function treatment is overcome for the non-"means"-reciting term "confinement structures" because, as to the "critical question," "the claim term is [not] used in common parlance or by persons of skill in the pertinent art to designate structure, including either a particular structure or a class of structures," *MTD*, 933 F.3d at 1341 (internal quotation marks omitted).

The term "confinement structures" "does not have a commonly understood meaning" within the art, nor "has [it] ever been used in relation to a portable gaming console system." JX-15.29; RX-60C, Q78, 84–94; RX-1824C, Q40–44. Those facts are just as true in this Investigation as they were in the 1111 Investigation, and Gamevice has offered no evidence to the contrary. *See generally* CPBr. In fact, the patent prosecutor (a named inventor) admits that he had never heard of the term before and that he coined it in the context of the patent. JX-19C, 152:24–153:13; RX-60C, Q95–99. Such coined terms are often means-plus-function terms, particularly where they are simply verbal constructs that do not designate sufficiently definite structure. *See, e.g.*, *MTD*, 933 F.3d at 1343–44; *Advanced*, 830 F.3d at 1348; *Diebold*, 899 F.3d at 1302. Here, the word "structure"—in "confinement structures"—is not the name of a particular structure or class of structures known in the art: it is a generic stand-in for any *thing* performing the recited function, indistinguishable from recognized nonce terms like "mechanism" or "device" and completely unlike the term "screwdriver." RX-60C, Q84–87; RX-1824C, Q42–44.

Where, as here, "[t]he written description only depicts and describes how what is referred to as the [claim term] is connected to various parts of the system, how the [term] functions, and the potential—though not mandatory—functional components of the [term]," means-plus-function treatment is appropriate. *Media Rights Techs., Inc. v. Cap. One Fin. Corp.*, 800 F.3d 1366, 1372 (Fed. Cir. 2015); *Laitram Corp. v. Rexnord, Inc.*, 939 F.2d 1533, 1536 (Fed. Cir. 1991) ("[T]he structural description in the joining means clause merely serves to further specify the function of that means. The recited structure tells only what the means-for-joining *does*, not what it *is* structurally." (emphases in original)). "Mere inclusion of a limitation within a structure does not automatically render the limitation itself sufficiently structural," *Egenera*, 972 F.3d at 1374, and neither does reciting a structural component of a functional term if that component does not elucidate the term's structure, *MIT v. Abacus Software*, 462 F.3d 1344, 1353–54 (Fed. Cir. 2006) (construing term to be subject to means-plus-function treatment despite dependent claims specifying additional structures). "[T]he question is not whether [the claim term] is utterly devoid of structure but whether the claim term recites sufficient structure to perform the claimed functions," *Egenera*, 972 F.3d at 1374, and the suggestion that a term "must have *some* structure to perform the function" is

insufficient where "the [asserted] patent does not offer any clues as to what such a structure might be," *Diebold,* 899 F.3d at 1298.

At the hearing, Gamevice's counsel read a number of cases (absent from its Prehearing Brief, *see generally* CPBr) to allegedly show that "interconnectedness" establishes structure, Tr. 471:7–474:6, but the cases identify exactly what is missing here—"the claim term[s in those cases were found to be] used … by persons of skill in the pertinent art to designate structure, including either a particular structure or a class of structures," *MTD*, 933 F.3d at 1341. *See Powell v. Home Depot USA, Inc.*, 663 F.3d 1221, 1229–31 (Fed. Cir. 2011) (applying since-overruled "strong" presumption against means-plus-function treatment and finding that "the written description identifies several prior art patents that disclose various types of dust collection structures[, the term at issue]"); *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 469 F.3d 1005, 1023 (Fed. Cir. 2006) (applying since overruled "strong" presumption and finding both experts agreed that the term "compression member" "is an expression that was understood by [POSAs] to describe a kind of structure"); *Samsung Elecs. Am., Inc. v. Prisua Eng'g Corp*., 948 F.3d 1342, 1353–54 (Fed. Cir. 2020) (relying on the lack of a dispute that "the digital processing unit in the claim is 'an image processing device that people in the art are generally familiar with'"). As explained above, there is no evidence that the term "confinement structures" was ever used in the art (or in the specification itself) to refer to a particular structure or class of structures. *See Media Rights*, 800 F.3d at 1373 (rejecting sufficiency of "interconnectedness" argument and cautioning against reliance on pre-*Williamson* precedent applying the "strong" presumption).

The surrounding language in claims 1 and 17 does not elucidate the structure of "confinement structures." For example, that the "confinement structures" are "separate and distinct" from the "structural bridge" only says what the "confinement structures" are *not*, not what they *are*. Stern Tr. 522:7–523:2; RX-60C, Q79–80; RX-1824C, Q45–47. Similarly, that the "confinement structures" (whatever they are) are adjacent two sides of the computing device or secured to other components do "not offer any clues as to *what* such a structure might be," only *where* it might be, *Diebold*, 899 F.3d at 1298; *Egenera*, 972 F.3d at 1374. RX-60C, Q79–80; RX-1824C, Q45–47.

The recitation of a "communication link" is similarly insufficient. The "communication link" is only disclosed as an optional feature in the specification, JX-1, 9:29–38 ("[p]referably" part of the communication port 310); RX-1824C, Q49–50, and thus, it does not define the structure of "confinement structures." *Media Rights*, 800 F.3d at 1372. Moreover, "communication link" itself does not appear to refer to any particular structure or class of structures, since the components labeled "communication links" in the specification (*e.g.*, 270/312/314) are not the "communication links" recited in the claims, at least according to Gamevice. CPBr.151 (arguing signal input lands are the recited "communication links"); RX-1824C, Q49–50; *see* Section 18.6. And there is no meaningful dispute that "communication links"—whatever they are—are not themselves adequate

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structure to perform the recited functions. RX-1824C, Q49–50; *see Egenera*, 972 F.3d at 1374 ("The question is … whether [the claim term] recites *sufficient* structure … *for performing [the recited] function*." (emphases in original)). The limitations do not "dictate[ ] any aspect of the [term's] structure" or "offer any structural limitation that might serve to cabin the scope of the functional term," *Diebold*, 899 F.3d at 1300–01. RX-60C, Q79–86; RX-1824C, Q45–50.

The specification further confirms there is no common structure for the term "confinement structures." RX60C, Q87–94; RX-1824C, Q51–54. Indeed, the specification discloses both a "slide support *confinement structure* 472" that houses a "computing device slide pad" and a "sizing toggle *confinement structure* 470" that "mitigates an inadvertent movement of the sizing toggle 474." JX-1, 14:1–3, 14:14–16. Referring to these different components that share no identifiable common structural properties as "confinement structures" further evidences the generic, functional nature of the term. RX-60C, Q87; RX-1824C, Q53. To be sure, the specification also discloses a preferred embodiment with confinement structures that can perform the recited function(s), but that example does not *define* the term's structure: "Just as it is improper to 'import[ ] limitations from the specification into the claims,' … a preferred embodiment disclosed in the specification cannot impart structure to a term that otherwise has none." *MTD*, 933 F.3d at 1342–43 (citation omitted); *Diebold*, 899 F.3d at 1300–01; RX-60C, Q88–90; RX-1824C, Q52–53. Although preferred embodiments may constitute corresponding structure (as explained below, here it does), that is a step-two inquiry, and conflating use of the specification in step-one (asking whether means-plus-function treatment even applies) with step-two is legal error. *MTD*, 933 F.3d at 1344. The term "confinement structure" does not refer to a particular structure or class of structures and thus means-plus-function treatment is required.

* * *

The second step requires determining whether corresponding structure capable of performing the recited function is clearly linked or associated with that function in the specification. If not, the term is indefinite. *B. Braun Med., Inc. v. Abbott Labs.*, 124 F.3d 1419, 1424 (Fed. Cir. 1997) ("This duty to link or associate structure to function is the quid pro quo for the convenience of employing § 112[f]."); *Williamson*, 792 F.3d at 1352; *Default Proof Credit Card Sys., Inc. v. Home Depot USA, Inc.*, 412 F.3d 1291, 1299–303 (Fed. Cir. 2005).

"The function of a means-plus-function limitation … must come from the claim language itself," *Creo Prods., Inc. v. Presstek, Inc.*, 305 F.3d 1337, 1344 (Fed. Cir. 2002), for "[t]he statute does not permit limitation of a means-plus-function claim by adopting a function different from that explicitly recited in the claim," *In re Teles AG Informationstechnologien*, 747 F.3d 1357, 1367–68 (Fed. Cir. 2014). Where similar terms are used in different claims reciting different functions, the statute requires identifying different functions for the analysis. *See Asyst Techs., Inc. v. Empak, Inc.*, 268 F.3d 1364, 1369–70 (Fed. Cir. 2001)

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(rejecting the parties' identical treatment of different claims with similar means-plus-function terms because "in construing a means-plus-function limitation [one must] identify the function *explicitly* recited in the claim").

Nintendo's proposed functions (identified above) are derived from the claims themselves, as required by the statute, and thus, because claim 1 recites a (slightly) different function than claim 17, the construed functions are also necessarily different. JX-14.3; RX-60C, Q100–101; RX-1824C, Q55–57; s*ee Asyst*, 268 F.3d at 1369–70. The specification teaches one corresponding structure for both sets of functions: "pair of confinement structures 316." RX-60C, Q104–12; RX-1824C, Q58. This component is shown in Figures 16–25 and consists of a pair of confinement structures, a structural bridge, and an adjustable fastening mechanism. JX-14.3 (citing JX-1, 9:21–11:17). The "interaction" between element 316 and the computing device occurs because the confinement structures 316 "hold" the computing device between them due to compressive pressure via operation of the adjustable fastening mechanism and the structural bridge. RX-60C, Q91–94, 104–12, 163–65; RX-1824C, Q141–46; *see* Section 18.5. Element 316 is the only adequate structure clearly linked and associated with the specification's recited function, and, therefore, "pair of confinement structures" should be limited to element 316 and equivalents thereof. *Id*.

* * *

Gamevice's proposed construction, "components that hold a computing device," is not consistent with the specification and is a purely functional construction. Indeed, "components" does not tell a person of skill in the art what the "component" is; it is essentially indistinguishable from reciting "means," "mechanisms," or "devices" "that hold a computing device." RX-60C, Q113–18; RX-1824C, Q41–44. In each case, the supposed structure—"component," "means," "mechanism," or "device"—is a generic stand-in for any structure that can perform the "holding" function. Such constructions are routinely rejected by the Federal Circuit since they fail to adequately describe structure, *see, e.g.*, *Halliburton Energy Servs., Inc. v. M-I LLC*, 514 F.3d 1244, 1255 (Fed. Cir. 2008), and the Federal Circuit recently made clear that "a preferred embodiment disclosed in the specification cannot impart structure to a term that otherwise has none," *MTD*, 933 F.3d at 1342–43. Thus, the ALJ should reject Gamevice's proposed construction and enter a construction based on § 112(f) and the correct corresponding structure.

Resps. Br. at 23-28 (footnotes omitted).

The Staff argues, in part:

As an initial matter, the parties dispute whether the term "confinement structures" is subject to 35 U.S.C. § 112(f). When a limitation does not use the term "means," there is a rebuttable presumption that § 112(f) does not apply.

Williamson v. Citrix Online, LLC, 792 F.3d 1339, 1349 (Fed. Cir. 2015) (*en banc*). This presumption, however, can be overcome by demonstrating "that the claim term fails to recite sufficiently definite structure or else recites function without reciting sufficient structure for performing this function." *Id.* (internal quotation marks omitted), *citing Watts v. XL Sys., Inc.*, 232 F.3d 877 (Fed. Cir. 2000).

Here, the evidence shows that the term "'confinement structures' does not connote a particular structure or class of structures known in the art. This is so because the term 'confinement structure' is not a term used in the art or with which a person of ordinary skill in the art would be familiar." RX-0060C (Stern WS) at Q/A 78. Instead, it is a term coined by Complainant's prosecuting attorney, Mr. Dooley. *See* Resps. P.H. Br. at 45; JX-0019C (Dooley Dep.) at 153:3-13. The term "confinement structures" sets forth a black box recitation of structure for "confining." *Id.* at Q/A 82. "To a person of skill in the art, a 'structure' – whether it comprises a 'communication link' or not – says nothing about what the structure actually is. A circuit board is a structure. But so too is a high-rise building. Both could include 'communication links.' In this case, the word 'structure' itself is just a generic stand-in." *Id.*

Gamevice contends that the claim language, when read in light of the specification and the surrounding claim language recites sufficiently definite structure for confining the computing device. Compl. P.H. Br. at 13. The Staff disagrees. The surrounding claim language does add certain limitations. For example, the claim requires "the pair of confinement structures interacting with the computing device." But this language simply indicates that it is the computing device that is being confined, without providing any definite limits on corresponding structures. RX-0060C (Stern WS) at Q/A 82. In addition, the claim requires that the confinement structures include a communication link. A communication link, however, has nothing to do with confining a computing device, and thus provides no help in limiting the claim to sufficiently definite structures. *See id.* Gamevice also contends that the specification confirms the structural attributes of the "confinement structures." *See* Compl. P.H. Br. at 14. The Staff disagrees. "Just as it is improper to import limitations from the specification into the claims, a preferred embodiment disclosed in the specification cannot impart structure to a term that otherwise has none." *MTD Prods. Inc. v. Iancu*, 933 F.3d 1336, 1342-43 (Fed. Cir. 2019) (internal quotations and citation omitted). The Staff thus submits that the term "confinement structures" is a means-plus-function term subject to 35 U.S.C. § 112(f). *See* Resps. P.H. Br. at 44-50.

Nintendo agrees with the Staff that the claim term is written in means-plus-function format, but contends that the claimed function is "interacting with the computing device." The Staff disagrees. This function reads the word "confinement" out of the claim, and is thus incorrect. In the Staff's view, the term "confinement structure" tells us its function – and that function is to confine *something*. The limitation of "interacting with the computing device" does not add

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> a function, it simply tells what is being confined. The Staff thus submits that the claimed function is "confining the computing device."
>
> With respect to the corresponding structures, both Gamevice and Nintendo disagree with the Staff. The corresponding structures must encompass all disclosed structures which perform the claimed function of "confining the computing device." The term should not be limited to particular embodiments that meet all other limitations of the claim. Doing so would improperly import limitations from the specification into the claims. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005). Instead, the claim should be read as encompassing all corresponding structures that perform the recited function of "confining the computing device." This includes: (i) side structures 116 and 118 which form a u-shaped structure 128 with structural bridge 124 to nest a computing device (Fig. 1, 4:46-52, 5:22-31); (ii) control modules that attach to a structural bridge using a confinement boss, retention member, detent, and catch to confine a computing device (Fig. 14-15, Col. 8:38-49); (iii) confinement structures that attach to a structural bridge using an adjustable fastening mechanism that provides "sufficient compressive load [] on the computing device [] to securely hold the computing device between the pair of confinement structures" (Figs. 16-18, Col. 9:39-53, Col. 9:60-62, Col. 10:8-20); (iv) control modules that attach to a structural bridge using a tensioning mechanism 446 or 546 (as shown in Figs. 26, 37, and 38) to snugly accommodate the length of a computing device (Figs. 26-29, 37, 38; Col. 12:4-14:18; Col. 15:63- 16:27); and (v) equivalents thereof.

Staff Br. at 20-22.

For the reasons provided below, the administrative law judge has determined to construe "confinement structures" as "components that hold a computing device."

The claims and the specification do not provide an explicit definition of the term "confinement structure." The claims, however, indicate that a confinement structure is a physical component of the claimed apparatus that holds the computing device. For example, claim 1 indicates that the confinement structure is a component because (1) the claims require it to be "adjacent" two opposing sides of the computing device; (2) each confinement structure "compris[es]" a communication link; and (3) "each of the pair of confinement structures are separate and distinct structures from the structural bridge, forming no structural portion of the structural bridge." JX-0001 ('393 patent) at col. 17, ln. 53 – col. 18, ln. 21. The claim's use of

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the phrase "interacting with the computing device and adjacent at least two opposing sides of the computing device" is consistent with the confinement structure as a component that holds the computing device. Furthermore, the claims do not use the word "means," which is one indication that the component is not functionally claimed.

The specification also indicates that the confinement structure is a component that holds the computing device. The specification discusses confinement structures in detail:

> FIG. 17 shows a top view of the communication port 310 that preferably includes a structural bridge 322, securing the pair of confinement structures 316, one to the other. The structural bridge 322 is preferably secured to a select confinement structure of the pair of confinement structures 316 by way of a solid connection 324, and to remaining confinement structure of the pair of confinement structures 316 by way of a slip fit 326. The fastening mechanism 320, is preferably securely fastened to to a conduit 328, of the structural bridge 322, by way of a anchor member 330, the anchor member 330 is preferably positioned in a location adjacent the slip fit 326, and by way of an attachment member 332 (shown in FIG. 18), securely attached to the remaining confinement structure of the pair of confinement structures 316. The attachment member 332 is preferably positioned in a location adjacent the slip fit 326. Operation of the fastening mechanism 320 facilitates an expand and contract of the distance between the pair of confinement structures 316. The expansion and contraction of the distance between the pair of confinement structures 316, facilitates placement of the computing device 302 between the pair of confinement structures 316, the application of sufficient compressive load being placed on the computing device 302 to securely ***hold the computing device between the pair of confinement structures 316***, and an ability to remove the compressive load and allow removal of the computing device from the communication port 310.
>
> FIG. 17 further shows that each of the pair of confinement structures 316, provide a pair of controller docking pins 334, while FIG. 18 shows that each of the pair of confinement structures 316 further provide a computing device cradle 336, and that a select confinement structure of the pair of confinement structures 316 provides a computing device interface feature 338. The interface feature 338, facilitates at least, but not limited to, the provision of power to the computing device 302.

Id. at col. 9, ln. 60 – col. 10, ln. 29 (emphasis added). The above excerpt of the specification

indicates that the confinement structures are physical components in light of the discussion concerning "slip fit," fastening mechanism, attachment member, and controller docking pins. Further, the above excerpt informs the reader, and a person of skill in the art, that a confinement structure holds the computing device, which is reflected in the construction.[14]

The Figures also inform the reader, and a person of skill in the art, that a confinement structure is a component that holds the computing device. Figures 16 and 17, which show the confinement structures, are reproduced below:

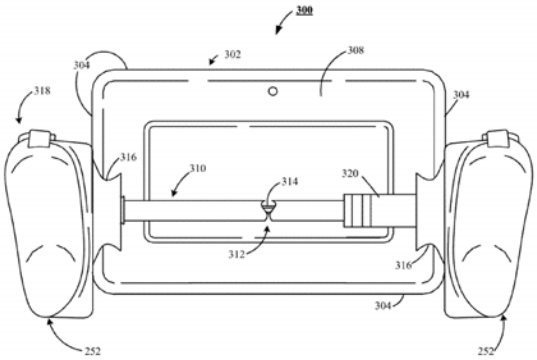


FIG. 16

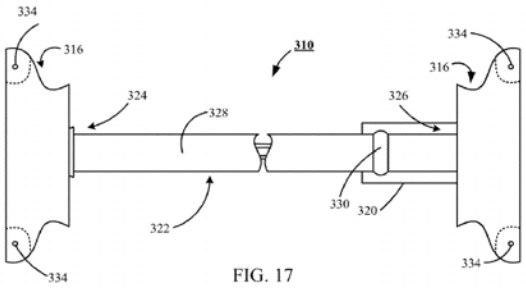


FIG. 17

As shown in Figure 16, the confinement structures clearly hold the computing device.

[14] The specification also indicates that the terms used have a broad general meaning:

> It is to be understood that even though numerous characteristics and configurations of various embodiments of the present invention have been set forth in the foregoing description, together with details of the structure and function of various embodiments of the invention, this detailed description is illustrative only, and ***changes may be made in detail, especially in matters of structure*** and arrangements of parts within the principles of the present invention to the full extent indicated by the ***broad general meaning of the terms in which the appended claims are expressed.*** For example, the particular elements may vary depending on the particular computing device without departing from the spirit and scope of the present invention.

JX-0001 ('393 patent) at col. 17, lns. 39-51 (emphasis added).

And as shown in Figures 16 and 17, the confinement structures are apparatus components that are not limited to a specific shape (the contours of the confinement structures differ in the figures).

The parties have not identified any portions of the prosecution history that apply to the term "confinement structures." A review of the prosecution history attached to the complaint does not appear to include a rejection stating that a "confinement structure" was known in the art. Thus, the prosecution history does not elucidate the meaning of the disputed term.

* * *

Accordingly, the administrative law judge has determined that disputed claim term "confinement structures" should be construed to mean "components that hold a computing device."

b. "retention mechanism" (claims 12 and 19)

Gamevice's Proposed Construction	Nintendo's Proposed Construction	The Staff's Proposed Construction
a machine or mechanical appliance that secures components in a particular relationship	Subject to 35 U.S.C. § 112(f). **Function of Claim 12:** interacting with the spring member of the restraint to couple the structural bridge to at least one of the first and second game control modules **Structure:** None (indefinite) **Function of Claim 19:** communicating with the	Subject to 35 U.S.C. § 112(f). Although claim 12 recites some structure (i.e., "a boss"), that structure is insufficient to perform the recited function. **Function:** to secure the structural bridge to the control modules **Structure:** (1) the mechanical arrangement, as shown in Figure 14, using a confinement boss 262 having a fastening detent 264 that interacts with a retention member

	structural bridge and securing the structural bridge to the first pair of control modules **Structure:** None (indefinite)	266 that is responsive to a catch 268 to secure the structural bridge 258 to the pair of control modules 252 (see '393 Patent, Fig. 14; Col. 8:38- 49); (2) the mechanical arrangement, as shown in Figures 27 and 29, using a boss 430 interacting with an adjustment structure 432 to adaptively secure the control module 402 to a structural bridge 422 (see '393 Patent, Figs. 27 & 29, Col. 11:58-12:39); and (3) equivalents thereof.

See JX-0014 at 3-4.

The claim term "retention mechanism" appears in dependent claims 12 and 19 of the '393 patent. JX-0001 ('393 patent) at claims col. 19, lns. 24-47, col. 21, lns. 3-28.

Gamevice argues, in part:

> In the 1111 Investigation, Gamevice and Nintendo agreed on the construction of this term as "a machine or mechanical appliance that secures components in a particular relationship," which the ALJ adopted. *See* JX-0015 at 16. Gamevice proposes that construction in this investigation because this term in the '393 patent is presumed to carry the same meaning. *See Omega*, 334 F.3d at 1334. The ordinary meaning of "retention" refers to retaining or securing something, and "mechanism" refers to a machine or mechanical appliance. *See* CX-0001C at Q/A 201, 210-213; CX-0099, Terminology for the Theory of Machines and Mechanisms, at 2; CX-0100, Dictionary of Mechanical Engineering at 6. Applying the ordinary meanings of the individual words of this phrase, persons of ordinary skill in the art would thus construe this term as Gamevice proposes. *See* JX-0014 at 3.
>
> Nintendo and OUII argue that this term should be subject to § 112(f) treatment. *See* JX-0014 at 3-4. For Nintendo, this is a stark contrast to its agreement in the 1111 Investigation that "retention mechanism" is a structural term with an agreed meaning. It is also incorrect. As previously discussed, the term does not recite the word "means," raising the presumption that it is not subject to § 112(f) treatment. *See Williamson v. Citrix Online*, LLC, 792 F.3d 1339, 1349 (Fed. Cir. 2015) (en banc); CX-0001C at Q/A 204. And the examiner and the applicant never discussed "retention mechanism" as a term covered by 35 U.S.C. § 112(f), even though the patent contained terms like "first means" and "second means" in independent claim 16. *See* JX-0002, '393 patent file history at 349-50, 390.

The term "retention mechanism" is a commonly used phrase in mechanical engineering and should be given its plain meaning in the same way as the claimed "structural bridge" and "passageway," both of which OUII and Nintendo agree are *not* means-plus-function terms. *See* CX-0001C, Singhose WS Q/A 223-224, 226, 237. Nintendo and OUII fail to overcome the presumption against § 112(f) treatment here because this term, properly read in the context of the surrounding claim language and specification, recites sufficiently definite structure. *See Williamson*, 792 F.3d at 1349. Claim 12 recites that the "retention mechanism" is located within the structural bridge and comprises a "boss," which is a well understood class of mechanical structures. JX-0001 at claim 12; CX-0001C, Singhose WS Q/A 205. It further recites that the boss of the "retention mechanism" interacts with a "spring member" of a "restraint" located in an electronic game control module, because of which the structural bridge is "couple[d]" to the electronic game control module. JX-0001 at claim 12. The "interaction" and "coupl[ing]" here describe the structural arrangement of the claimed components, not a functional relationship between them. CX-0001C, Singhose WS Q/A 205.

Claim 19 recites that "retention mechanism" is located within "a first of the pair of control modules." JX-0001 at claim 19. It further recites that the "retention mechanism" in the control module "communicates" with the structural bridge, because of which the structural bridge is "secure[d]" to the control module. *Id*. The words "communicating" and "secures" here describe a structural arrangement of the "retention mechanism" relative to the control module and the structural bridge, not a functional relationship between these components. CX-0001C, Singhose WS Q/A 205. Thus, the claim language shows that "retention mechanism" is not functionally claimed under § 112(f), but instead describes sufficiently definite structure. *See id*.

The patent's drawings and specification confirm the structural attributes of the claimed "retention mechanism," describing retention mechanism 424 as a machine or mechanical appliance including boss 430, adjustment structure 432 with constraint feature 444, adjustment feature 428, and restraint 434, which secures structural bridge 422 in a first or second position relative to base 426 of control module 402. *See* JX-0001 at Fig. 27, 29, 11:58-12:39; CX-0001C, Singhose WS Q/A 206-208, 226; CDX-0001C at 22. Nintendo's expert, Dr. Stern, fails to credit the patent's teaching of specific structural attributes of the claimed "retention mechanism" as a machine or mechanical appliance that secures components in a particular relationship. *See* CX-0001C, Singhose WS Q/A 226. Thus, this term is similar to others like "detent mechanism," "reciprocating member," "eyeglass hanger member," "sealingly connected joints," "connector assembly," "digital detector," "modernizing device," and "computing unit" that the courts have held do not invoke § 112(f) treatment. *See* CX-0001C at Q/A 224; *Inventio*, 649 F.3d at 1357-60; *CCS*, 288 F.3d at 1369-70; *Watts*, 232 F.3d at 881; *Al-Site*, 174 F.3d at 1318-19; *Personalized Media*, 161 F. 3d at 704-05; *Greenberg*, 91 F.3d at 1583-84.

OUII's proposed § 112(f) construction overlooks the structures recited in the claim language. *See* CX-0001C, Singhose WS Q/A 214-215. Further, OUII's identified function fails to account for the claimed word "retention" in "retention mechanism," instead referencing the "secures" limitation from claim 19 that actually describes the structural arrangement of the "retention mechanism" relative to the "control module" and the "structural bridge." *See* JX-0001 at claim 19; CX-0001C, Singhose WS Q/A 216. Moreover, although OUII's structure (2) appears to identify retention mechanism 424 of Figs. 27 and 29 as a corresponding structure, *see* CX-0001C W. Singhose WS Q/A 209, its structure (1) appears to be inconsistent with the remainder of claim 12 because it fails to resolve the relationship between the components identified in structure (1) and the remaining structural components expressly recited in claim 12 like "restraint" and "spring member," *see id. at* Q/A 217.

Contrary to the presumption that this term has the same meaning across the claims, *Paragon*, 566 F.3d at 1087, Nintendo incorrectly assigns different functions for this term in claims 12 and 19, *see* JX-0014 at 3; CX-0001C, Singhose WS Q/A 218, 228. Its identified functions for claim 12 and 19 both fail to account for the claimed word "retention" in "retention mechanism." *See* JX-0001 at claims 12, 19; CX-0001C, W. Singhose Q/A 219-220. Instead, for claim 12, Nintendo incorrectly references the "interaction" and "coupl[ing]" limitations, and for claim 19 the "communicating" and "secures" limitations, which describe the structural arrangement of the "retention mechanism" relative to the "control module" and the "structural bridge." *See* JX-0001 at claims 12, 19; CX-0001C, Singhose WS Q/A 219-220, 225.

Nintendo also incorrectly argues that this term is indefinite because the specification fails to disclose any structure corresponding to this claim term. *See* JX-0014 at 3. But, to the extent that this term is subjected to § 112(f) treatment, the '393 patent clearly links retention mechanism 424, including boss 430 and adjustment structure 432, to the "retention" function recited in both claims 12 and 19, as discussed above. *See* CX-0001C, Singhose WS Q/A 227, 229-235; *B. Braun Med.*, 124 F.3d at 1424. Thus, the specification identifies corresponding structure and the term is not indefinite.

Compl. Br. at 25-29.

Nintendo argues, in part:

Nintendo and Staff agree that "retention mechanism" is a means-plus-function term. JX-14.4–5. Because the recited functions are different in Claims 12 and 19, Nintendo proposes slightly different functions required by the difference in claim language: for claim 12, "interacting with the spring member of the restraint to couple the structural bridge to at least one of the first and second game control modules," and for claim 19, "communicating with the structural bridge and securing the structural bridge to the first pair of control modules," JX-14.4. *Teles*,

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747 F.3d at 1367–68; RX-60C, Q129; RX-1824C, Q115–17. Neither recited function is clearly linked to adequate corresponding structure, and therefore, the term (and claims 12 and 19) is indefinite. RX-60C, Q119–51; RX-1824C, Q102–120.

* * *

The presumption against means-plus-function treatment is rebutted because the "claim term ['retention mechanism'] fails to recite sufficiently definite structure or else recites function without reciting sufficient structure for performing that function," *Williamson*, 792 F.3d at 1348 (internal quotation marks omitted). RX-60C, Q119–28; RX-1824C, Q102–13.

The Federal Circuit has "never found that the term 'mechanism'—without more—connotes an identifiable structure; certainly, merely adding the modifier [retention] to that term would not do so either," *see Media Rights*, 800 F.3d at 1373; *Aspex Eyewear, Inc. v. Altair Eyewear, Inc.*, 288 F. App'x 697, 703–04 (Fed. Cir. 2008) (non-precedential) (concluding that "retaining mechanisms" was a means-plus-function term). "Generic terms such as '*mechanism*,' 'element,' 'device,' and other nonce words that reflect nothing more than verbal constructs may be used in a claim in a manner that is tantamount to using the word 'means' because they 'typically do not connote sufficiently definite structure' and therefore may invoke § 112[f]." *Williamson*, 792 F.3d at 1350 (citation omitted). That is true here, as a POSA would only understand "retention *mechanism*" to refer to a generic stand-in for undefined structure to perform the function(s) recited in the claims. RX-60C, Q122; RX-1824C, Q113.

None of the recited limitations in claims 12 or 19 provide the requisite structure for the term "retention mechanism." RX-60C, Q122–27; RX-1824C, Q108. Indeed, claim 12 recites the "retention mechanism," with "at least a boss," as part of the "structural bridge," and that the "retention mechanism" interacts with the "spring member" to perform the function of restraining the control modules to the structural bridge. But claim 19, which also recites "retention mechanism," is incontrovertible proof—entirely ignored by Gamevice at the hearing—that the recitals relied on by Gamevice do not provide structure. This is so because claim 19 recites a "retention mechanism" without a boss, that the "retention mechanism" is in the control module, not the structural bridge, Stern Tr. 645:3–6, and does not require the retention mechanism to interact with a spring member. Because a "retention mechanism" may—or may not—have a boss, may—or may not—be part of the structural bridge, and may—or may not—interact with a spring member, those recitals do not identify the structure of a "retention mechanism." RX-60C, Q124–26; RX-1824C, 108. They cannot, as they are merely optional, functional features, and instead confirm that "retention mechanism" does not refer to any particular structure or class of structures known in the art to a POSA. *See Media Rights*, 800 F.3d at 1372.

Dr. Stern also explained how even if the "retention mechanism" has a boss, that does not tell a skilled artisan sufficient information about the structure of the "retention mechanism" itself. Tr. 645:3–11. The undisputed meaning of a "boss" is, essentially, a protuberance, often times used to locate a screw or other fastener, Stern Tr. 469:9–19, 486:19–21; RX-1824C, Q579 (quoting RX-1410), but knowing that a "retention mechanism" has a raised area for a screw, tells you nothing whatsoever about the structure of the "retention mechanism," nor would a POSA consider that to be sufficient structure for performing the recited function. RX-60C, Q124, 138; RX-1824C, Q108. Even if Gamevice had identified the recited function to be "retention," it did not, RX-1824C, Q115, and even if that was correct, it is not, RX-1824C, Q116, there is no evidence that a boss alone would be sufficient structure, RX-1824C, Q110, 117, 120; CX-1C, Q208–09 (testifying that an additional adjustment structure would be required).

Similarly, the other claim limitations (and description in the specification) describe functional aspects of the term. RX-60C, Q128; RX-1824C, Q109; RX-1824C.A, Q109. For instance, that the "retention mechanism" "interacts" with a "spring member"—assuming that the "spring member" is a structural feature—tells a POSA nothing about the structure of the "retention mechanism," only the function it performs (*e.g.*, "coupl[ing] the structural bridge" to a control module). Stern Tr. 645:18–646:7; RX-60C, Q124–26; RX-1824C, Q108; RX-64.33 (Commission concluding that "interacts" is a "functional descriptor"). Gamevice's "interconnectedness" argument is also unavailing here (just as discussed with confinement structures in Section 10.1.1) since none of the limitations or descriptions cabin the term to any particular structure or class of structures. *Id.*; Stern Tr. 643:22–646:7; *see Diebold*, 899 F.3d at 1298; *Media Rights*, 800 F.3d at 1372–73.

Although the specification discloses a preferred embodiment with a retention mechanism, no party—including Gamevice—has ever contended that "retention mechanism" is *defined* by that preferred embodiment. CPBr.26; RX-60C, Q128; RX-1824C, Q109–12; RX-1824C.A, Q109; *see MTD*, 933 F.3d at 1344. While an embodiment may be corresponding structure under step-two of the § 112(f) analysis (as explained below, here it is not), it is contrary to law to conflate the use of the specification in step-one of the § 112(f) inquiry with step-two. *MTD,* 933 F.3d at 1344.

Gamevice relies on extrinsic evidence to argue that "retention mechanism" is a simple mechanical term for structure just like the term "screwdriver," *see, e.g.*, CX-1C, Q204, 224, but the two are nothing at all alike. RX-60C, Q127. "Screwdriver" is the name for a particular class of structures known in the art; it is not the name for anything that can drive a screw. RX-60C, Q85, 127; RX-1824C, Q42, 124. That is why when a POSA asks for a "screwdriver," they are not handed a hammer or a pair of scissors—both of which can be used to drive screws. *Id*. When a skilled artisan uses the word "screwdriver," she is referring to a particular structure or class of structures. *Id.*; RDX-2C.8 (RX-60C, Q85). There is no such

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structure or class of structures known in the art as a "retention mechanism." RX-60C, Q122, 127; RX-1824C, Q105.

* * *

Corresponding structure is only disclosed in the specification if it is (1) clearly linked to the recited function(s), and (2) adequate for performing the function(s). *Williamson*, 792 F.3d at 1352. The specification does not clearly link adequate structure to the functions identified by Staff or Nintendo, and therefore the term is indefinite. *Id*.

There is no disclosed structure that is clearly linked to, and capable of performing, the recited functions in claim 12 and 19. First, the specification confirms that a boss is an optional component that does not define the structure of a "retention mechanism." JX-1, 12:6–7 ("*[P]referably*, the retention mechanism [424] includes at least, but is *not limited to*, a boss 430."); RX-60C, Q133–39; RX-1824C, Q109–12; RX-1824C.A, Q109. Additionally, there is no disclosure of (1) what components comprise retention mechanism 424 (depicted as an arrow directed to any number of components in Figure 27, Stern Tr. 480:7–12; RX-60C, Q134–39; RX-1824C, Q110; CPBr.26 (listing arbitrarily selected components that comprise retention mechanism 424)), (2) what structure or part of a structure is meant to correspond to a boss in component 430 (Stern Tr. 647:20–648:13; RX-1824C, Q120), or (3) how whatever comprises retention mechanism 424 performs the recited functions of securing/coupling the structural bridge to the control modules. RX-60C, Q136–38; RX-1824C, Q110, 117–20. Corresponding structure, thus, is wanting.

The lack of disclosure is particularly problematic for claim 12, which recites a "retention mechanism" that is part of the *structural bridge* and performs the function of coupling that structure to a control module via interaction with the "spring member of the restraint" on one of the control modules. But the only disclosure of a retention mechanism in the specification is found in Figure 27 and the associated text, which describes retention mechanism 424 as part of the *control module*—not the structural bridge. JX-1, Fig. 27, 11:58–66, 12:4–12; RX-60C, Q133–43; RX-1824C, Q109–12, 114, 118–20; RX-1824C.A, Q109. This is not disclosure of how interaction of retention mechanism 424 (part of the control module) with the restraint (part of the control module) would couple the control module to the structural bridge as required in claim 12—there is no corresponding structure clearly linked and capable of performing this function. *Id.* Gamevice's only contrary support is Dr. Singhose's naked assertion that the boilerplate language at the end of the patent contemplates the undisclosed, claimed arrangement (where a retention mechanism is part of the structural bridge). CX-1C, Q230; RX-1824C, Q118. Boilerplate language does not "*clearly* link[] or associate[] th[e alleged] structure to the function recited in the claim," *see Williamson*, 792 F.3d at 1352, the very "quid pro quo for the convenience of employing § 112[f]," *B. Braun*, 124 F.3d at 1424, and Dr. Singhose's conclusory

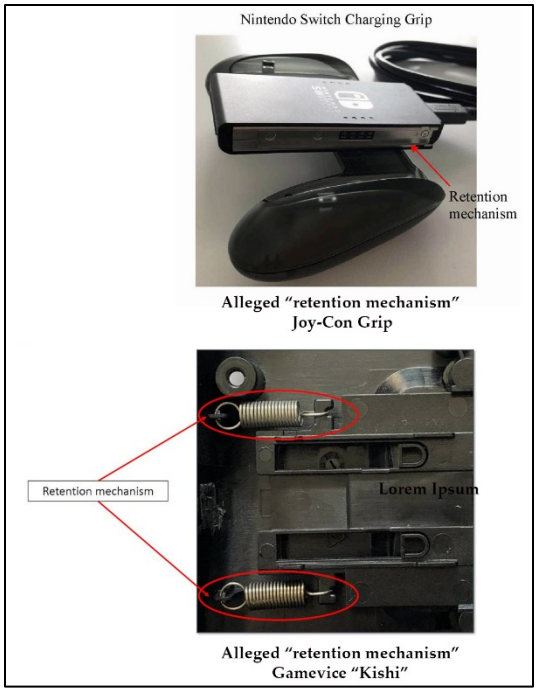
expert testimony to the contrary is not substantial evidence, *see Kim v. ConAgra Foods, Inc.*, 465 F.3d 1312, 1320 (Fed. Cir. 2006).

Staff argues Figure 14 (and associated text) provide corresponding structure, but Gamevice and Nintendo, and their respective technical experts, agree that a POSA would not understand that disclosure to clearly link or associate adequate structure to perform the recited functions. CPBr.27 (criticizing Staff's first corresponding structure based on Fig. 14, JX-14.4–5); CX-1C, Q217; RX-60C, Q140–42; RX-1824C, Q117. That embodiment discloses a "retention *member*," not a "retention *mechanism*" (different structure, RX-60C, Q140), as part of the structural bridge (unlike, as recited in claim 19 as part of the control module), and it does not clearly link the structure to performing the recited functions of coupling or securing the structural bridge to the control module (instead appearing to be directed to the different function of attaching the computing device to the input device). RX-60C, Q140–42; CX-1C, Q217; JX-1, Fig. 14, 8:38–49. There is no corresponding structure, and so "retention mechanism," and claims 12 and 19, are indefinite.

* * *

Gamevice's construction—"a machine or mechanical appliance that secures components in a particular relationship"—is purely functional. RX-60C, Q122, 127, 144–51; RX-1824C, Q105, 111. Substitute "means" for "machine or mechanical appliance," ("[means] that secures components in a particular relationship") and a POSA knows no less about the structure of the "retention mechanism." RX-1824C, Q111–13; RX-60C, Q149. Indeed, a "machine or mechanical appliance" refers to any arrangement of two or more generic components that move relative to one another, telling a POSA nothing about their actual structures. RX-60C, Q148–49; RX-1824C, Q111, 113. The Federal Circuit routinely rejects such functional constructions, *Halliburton*, 514 F.3d at 1255 (rejecting functional proposed construction for "fragile gel"); *see also Williamson*, 792 F.3d at 1350, and it is not any more viable in the context of this patent. RX-60C, Q144–151; RX-1824C, Q105, 111–13.

Gamevice's allegations further confirm the functional nature of the term. Right is what Gamevice calls a "retention mechanism" in the Joy-Con Grip; it is a notch in the rail. RX-1387C.137. Below that is what Gamevice calls a "retention mechanism" in one of its alleged DI products, CDX-1C.258 (CPX-6), comprising a spring with a hook and post. There are no structural characteristics of "retention mechanism" that a POSA would understand to be shared by (1) a notch in a rail and (2) a spring, hook, and post. RX-1824C, Q105–07. This is precisely why "retention mechanism" is so fundamentally different from "screwdriver," and precisely why it must be construed as a means-plus-function term: It is a generic stand-in for any *thing* that performs the required function, as shown in Gamevice's own contentions. RX-60C, Q122, 127, 148–49; RX-1824C, Q103–07.



Gamevice heavily relies on the lack of a dispute regarding the meaning of the same term in the 1111 Investigation, Tr. 459:23–462:19, but there it was not in a claim asserted against Nintendo. To focus the issues, the term was not disputed. In this Investigation, and on the record developed herein, it is. The term "retention mechanism" is subject to means-plus-function treatment but corresponding structure is not disclosed in the specification, thus, the term and claims 12 and 19 are indefinite.

Resps. Br. at 29-35.

The Staff argues, in part:

The parties disagree as to the appropriate construction of the term "retention mechanism" as it is used in claims 12 and 19 of the '393 patent. Claim 12 recites a structural bridge "comprising a retention mechanism, the retention mechanism providing at least a boss, an interaction of the spring member of the restraint with the boss of the retention mechanism couples the structural bridge to at least one of the first and the second electronic game control modules." *See* Resps. P.H. Br. at 39-44; RX-0060C (Stern WS) at Q/A 119-151.

As discussed above, when a limitation does not use the term "means," there is a rebuttable presumption that § 112(f) does not apply. *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1349 (Fed. Cir. 2015) (*en banc*). This presumption, however, can be overcome by demonstrating "that the claim term fails to recite sufficiently definite structure or else recites function without reciting sufficient

structure for performing this function." *Id.* (internal quotation marks omitted), *citing Watts v. XL Sys., Inc.*, 232 F.3d 877, 880 (Fed. Cir. 2000). Here, the term "retention mechanism" is not a term used in the art, and it fails to connote any definite structure. *See* Resps. P.H. Br. at 39-44; RX-0060C (Stern WS) at Q/A 119-151. Additionally, while the claim recites some structure (*i.e.*, "a boss"), that structure is insufficient to secure the structural bridge to the control modules. *Id.* Furthermore, the term "mechanism" is a nonce word used to generically refer to any structure that performs the claimed "retention" function. *Id.* Thus, § 112(f) applies.

Gamevice contends that the term "retention mechanism" should be construed as "a machine or mechanical appliance that secures components in a particular relationship." JX-0014 (Joint Claim Construction Statement). In other words, Gamevice contends that the limitation covers any "machine or mechanical appliance" that performs the function of "secur[ing] components in a particular relationship." *See id.* This construction further demonstrates why this limitation is subject to § 112(f).

While the Staff and Nintendo agree that the term "retention mechanism," as it is used in claims 12 and 19 of the '393 patent, is a means-plus-function limitation subject to § 112(f), they disagree as to recited function and corresponding structures. Nintendo contends that the function of claim 12 is "interacting with the spring member of the restraint to couple the structural bridge to at least one of the first and second game control modules" and that the function of claim 19 is "communicating with the structural bridge and securing the structural bridge to the first pair of control modules." *See* Resps. P.H. Br. at 38-44. Nintendo further contends that the specification of the '393 patent fails to disclose any corresponding structures and claims 12 and 19 are indefinite. The Staff disagrees.

In the Staff's view, claim 12 describes the retention mechanism as "providing at least a boss, an interaction of the spring member of the restraint with the boss of the retention mechanism couples the structural bridge to at least one of the first and the second electronic game control modules." Thus, the retention mechanism performs the function of "securing the structural bridge to the control modules." Similarly, claim 19 recites a retention mechanism "wherein the retention mechanism secures the structural bridge to the first of the pair of control modules." Thus, the claimed function of the "retention mechanism" is "securing the structural bridge to the control modules." *See* JX-0001 ('393 patent) at cls. 12, 19. The specification of the '393 patent discloses two mechanical arrangements for securing the structural bridge to control modules: (i) the mechanical arrangement, as shown in Figure 14, using a confinement boss 262 having a fastening detent 264 that interacts with a retention member 266 that is responsive to a catch 268 to secure the structural bridge 258 to the pair of control modules 252 (see '393 Patent, Fig. 14; Col. 8:38- 49); and (ii) the mechanical arrangement, as shown in Figures 27 and 29, using a boss 430 interacting with an adjustment structure 432 to adaptively secure the control module 402 to a structural bridge 422 (see '393 Patent, Figs. 27

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> & 29, Col. 11:58-12:39). *See* JX-0001 ('393 patent) at Figs. 14, 27, 29; col. 8:38-49; col. 11:58-12:39. The Staff thus submits that the claimed "retention mechanism" should be so limited.

Staff Br. at 23-25.

For the reasons discussed below, the administrative law judge has determined that the term "retention mechanism" is subject to § 112(f); that the relevant function is "securing the structural bridge to the control modules"; and the corresponding structure is (1) the mechanical arrangement, as shown in Figure 14, using a confinement boss 262 having a fastening detent 264 that interacts with a retention member 266 that is responsive to a catch 268 to secure the structural bridge 258 to the pair of control modules 252 ('393 patent, Fig. 14; col. 8, lns. 38-49); (2) the mechanical arrangement, as shown in Figures 27 and 29, using a boss 430 interacting with an adjustment structure 432 to adaptively secure the control module 402 to a structural bridge 422 ('393 patent, Figs. 27 and 29, col. 11, ln. 58 – col. 12, ln. 39); and (3) equivalents thereof.

i. Whether § 112(f) Applies

As a threshold issue, the administrative law judge must determine whether § 112(f) applies to the disputed term. *See Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1347-48 (Fed. Cir. 2015). The Federal Circuit has explained:

> In making the assessment of whether the limitation in question is a means-plus-function term subject to the strictures of § 112, para. 6, our cases have emphasized that the essential inquiry is not merely the presence or absence of the word "means" but whether the words of the claim are understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure.

Id. at 1348; *see also* The Manual of Patent Examining Procedure § 2181 (Ninth Edition, Revision 08.2017, Last Revised January 2018) ("To determine whether a word, term, or phrase coupled with a function denotes structure, examiners should check whether: (1) the specification

provides a description sufficient to inform one of ordinary skill in the art that the term denotes structure; (2) general and subject matter specific dictionaries provide evidence that the term has achieved recognition as a noun denoting structure; and (3) the prior art provides evidence that the term has an art-recognized structure to perform the claimed function.").

With regard to claim 12, the claim recites:

> 12. A combination comprising:
>
> a first electronic game control module of a pair of electronic game control modules, and a second electronic game control module of the pair of electronic game control modules each the first and the second electronic game control modules includes at least a plurality of instructional input devices, and at least one of the first and the second electronic game control modules further comprising a restraint, the restraint providing at least a spring member; and
>
> a structural bridge interposed between said first and second electronic game control module, said structural bridge comprising a first side, said first side of said structural bridge in contact adjacency with said first electronic game control module, said structural bridge further comprising a second side, said second side of said structural bridge in contact adjacency with said second electronic game control module, ***said structural bridge still further comprising a retention mechanism, the retention mechanism providing at least a boss, an interaction of the spring member of the restraint with the boss of the retention mechanism couples the structural bridge to at least one of the first and the second electronic game control modules***.

JX-0001 ('393 patent) at col. 19, lns. 24-47 (emphasis added).

Claim 12 recites that the "retention mechanism" provides a boss, but this is the only structural element recited. Otherwise, the retention mechanism is described functionally in that an interaction of the spring member of the restraint with the boss of the retention mechanism couples the structural bridge to at least one of the first and the second electronic game control modules. This indicates that the "retention mechanism" would not be understood as a structure. Further, claim 12 and all of the other claims in the patent do not impose any structural attributions to the retention mechanism. The claim language does not limit the shape. Thus, the

claims do not convey structure.

With regard to claim 19, the claim recites:

> 19. The apparatus of claim 16, in which the computing device having a length greater than its width, and wherein the first means for attaching the input device to a computing device comprising:
>
> > the input device in electronic communication with the central processing unit, the input device providing a pair of control modules, the pair of control modules are adjacent to and confine the computing device on at least two opposing sides of the computing device, the at least two opposing sides adjacent the electronic display screen define end points of the length of the computing device, the pair of control modules each adapt to and are in pressing contact with said opposing end points of the length of the computing device; and
> >
> > a structural bridge, the structural bridge secures the pair of control modules one to the other, and ***wherein a first of the pair of control modules comprising a retention mechanism communicating with the structural bridge, and wherein the retention mechanism secures the structural bridge to the first of the pair of control modules, such that the structural bridge accommodates the length of the computing device,*** and in which the structural bridge provides a void in the mid-section of the structural bridge, the void having right, left, upper, and lower sides, each side communicating with a material of the structural bridge.

JX-0001 ('393 patent) at col. 21, lns. 3-28 (emphasis added).

The phrases following "retention mechanism" recite actions: the "retention mechanism" communicates with the structural bridge, thereby securing the structural bridge to the first of the pair of control modules. This indicates that the "retention mechanism" would not be understood as a structure. Further, claim 19 and all of the other claims in the patent do not impose any structural attributions to the retention mechanism. The claim language does not limit the shape. Thus, the claims do not convey structure.

The specification also fails to provide a sufficient description of structure. The specification recites:

> FIG. 27 shows an exploded view in perspective of the first control module 402, of the input device 400, of FIG. 26. The first control module 402, of the pair of control modules (402, 404), preferably includes at least, but is not limited to, a retention mechanism 424, communicating with the structural bridge 422 (of FIG. 26), wherein the retention mechanism 424, secures the structural bridge 422 such that the structural bridge 422, adaptively accommodates the length of the computing device 406. Alternatively, the structural bridge 422 adaptively accommodates the length 420, of the second computing device 418. In a preferred embodiment, the length 420 of the second computing device 418 is greater than the length 412, of the computing device 406.
>
> FIG. 27 further shows that the first control module 402 provides a base 426, which provides an adjustment feature 428. And preferably, the retention mechanism includes at least, but is not limited to, a boss 430, communicating with the structural bridge 422, and an adjustment structure 432, interacting with the boss 430, by way of the adjustment feature 428. In a preferred embodiment, the base 426 is disposed between the adjustment structure 432, and the boss 424.

JX-0001 ('393 patent) at col. 11, ln. 58 – col. 12, ln. 12.

In particular, the specification describes what the retention mechanism does, rather than describing the retention mechanism's physical attributes. For example, the specification states that the retention mechanism "secures" the structural bridge 422 such that the structural bridge 422 adaptively accommodates the length of the computing device. While the specification discloses that the retention mechanism "includes at least, but is not limited to, a boss 430," that structure is insufficient to secure the structural bridge to the control modules. Furthermore, the term "mechanism" is a nonce word used to generically refer to any structure that performs the claimed "retention" function. Thus, § 112(f) applies.

ii. Identification of Structure and Function

In *Williamson*, the Federal Circuit explained:

> Construing a means-plus-function claim term is a two-step process. The court must first identify the claimed function. *Noah Sys., Inc. v. Intuit Inc.*, 675 F.3d 1302, 1311 (Fed. Cir. 2012). Then, the court must determine what structure, if any, disclosed in the specification corresponds to the claimed function. Where there are multiple claimed functions, as we have here, the patentee must disclose adequate corresponding structure to

> perform all of the claimed functions. *Id.* at 1318-19. If the patentee fails to disclose adequate corresponding structure, the claim is indefinite. *Id.* at 1311-12.

792 F.3d 1339 at 1351-52.[15]

Here, the relevant function is "securing the structural bridge to the control modules." As noted above, claim 12 recites, "an interaction of the spring member of the restraint with the boss of the retention mechanism couples the structural bridge to at least one of the first and the second electronic game control modules." Claim 19 recites, "wherein the retention mechanism secures the structural bridge to the first of the pair of control modules, such that the structural bridge accommodates the length of the computing device." Thus, the retention mechanism performs the function of "securing the structural bridge to the control modules."

The specification of the '393 patent discloses two mechanical arrangements for securing the structural bridge to control modules. First, a mechanical arrangement is shown in Figure 14, where a confinement boss 262 having a fastening detent 264 interacts with a retention member 266 that is responsive to a catch 268 to secure the structural bridge 258 to the pair of control modules 252. *See* JX-0001 ('393 patent) at col. 8, lns. 38-49.

---

[15] Also citing *Noah Sys.*, 675 F.3d 1302, the Federal Circuit in *Williamson* further explained:

> Structure disclosed in the specification qualifies as "corresponding structure" if the intrinsic evidence clearly links or associates that structure to the function recited in the claim. *Id*. (citing *B. Braun Med., Inc. v. Abbott Labs*., 124 F.3d 1419, 1424 (Fed.Cir.1997)). Even if the specification discloses corresponding structure, the disclosure must be of "adequate" corresponding structure to achieve the claimed function. *Id*. at 1311–12 (citing *In re Donaldson Co*., 16 F.3d 1189, 1195 (Fed.Cir.1994) (en banc)). Under 35 U.S.C. § 112, paras. 2 and 6, therefore, if a person of ordinary skill in the art would be unable to recognize the structure in the specification and associate it with the corresponding function in the claim, a means-plus-function clause is indefinite. *Id*. at 1312 (citing *AllVoice Computing PLC v. Nuance Commc'ns, Inc*., 504 F.3d 1236, 1241 (Fed.Cir.2007)).

Williamson, 792 F.3d at 1352.

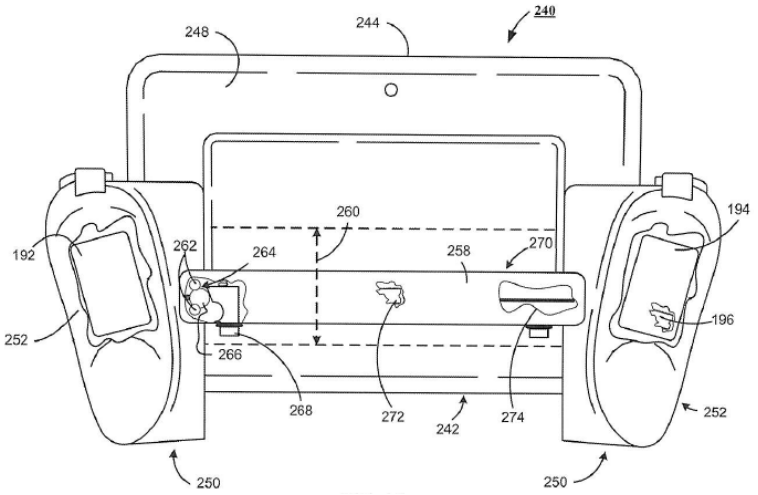
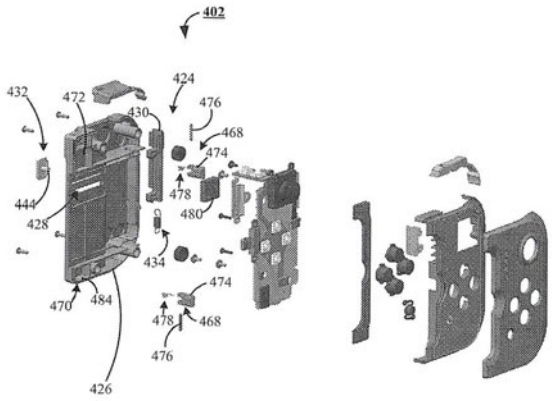


FIG. 14 of JX-0001 (’393 patent)

Second, a mechanical arrangement shown in Figures 27 and 29 depicts a boss 430 interacting with an adjustment structure 432 to adaptively secure the control module 402 to a structural bridge 422. *See* JX-0001 (’393 patent) at col. 11, ln. 58 – col. 12, ln. 39.



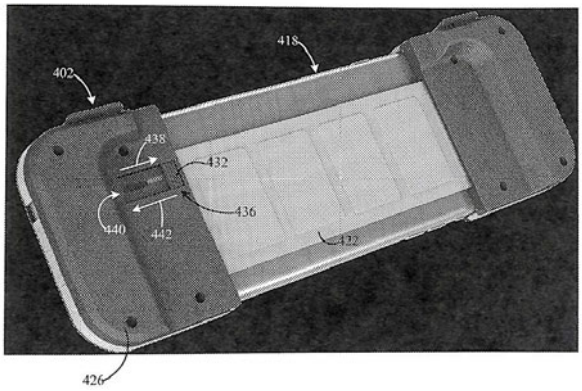


FIG. 27 of JX-0001 (’393 patent)

FIG. 29 of JX-0001 (’393 patent)

As shown above, retention mechanism 424 includes boss 430, adjustment structure 432 with constraint feature 444, adjustment feature 428, and restraint 434, which secures structural bridge 422 in a first or second position relative to base 426 of control module 402.

* * *

Accordingly, the administrative law judge has determined that the term "retention mechanism" is subject to § 112(f), and the relevant function is "securing the structural bridge to the control modules." Moreover, the corresponding structure is (1) the mechanical arrangement, as shown in Figure 14, using a confinement boss 262 having a fastening detent 264 that interacts with a retention member 266 that is responsive to a catch 268 to secure the structural bridge 258 to the pair of control modules 252 ('393 patent, Fig. 14; col. 8, lns. 38-49); (2) the mechanical arrangement, as shown in Figures 27 and 29, using a boss 430 interacting with an adjustment structure 432 to adaptively secure the control module 402 to a structural bridge 422 ('393 patent, Figs. 27 and 29, col. 11, ln. 58 – col. 12, ln. 39); and (3) equivalents thereof.

c. "first means for attaching an input device to a computing device" (claims 16, 17, 19, and 21)

Gamevice's Proposed Construction	Nintendo's Proposed Construction	The Staff's Proposed Construction
Independent claim 16: Subject to 35 U.S.C. § 112, ¶ 6/§ 112(f). **Function:** attaching an input device to a computing device **Structures:** (1) pair of confinement structures 316 and structural bridge 322; or (2) pair of control modules 402/404, structural bridge 422, and retention mechanism 424; and equivalents thereof. **Dependent claims 17, 19, and 21:** Not subject to 35 U.S.C. § 112, ¶ 6/§ 112(f). This term is	Subject to 35 U.S.C. § 112(f). **Function:** attaching an input device to a computing device **Structure**: (1) structure 128, which allows a computing device to attach to input device 114 by nesting (Fig. 1, 4:46-52, 5:22-31, 6:51-57); (2) control modules that "secure" to a structural bridge using a confinement boss, retention member, detent, and catch (Fig. 14-15, 8:38-49); (3) confinement structures, a structural bridge, and an adjustable fastening mechanism that provides	Subject to 35 U.S.C. § 112(f). **Function:** attaching an input device to a computing device **Structure:** (1) structure 128, which allows a computer device to attach to input device 114 by nesting (Fig. 1, Col. 4:46-52, Col. 5:22-31, Col. 6:51-57); (2) control modules that "secure" to a structural bridge using a confinement boss, retention member, detent, and catch (Fig. 14-15, Col. 8:38-49); (3) confinement structures, a structural bridge, and an adjustable fastening mechanism that provides "sufficient

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defined by the claim language recited in the respective dependent claims. No construction necessary.	"sufficient compressive load [] on the computing device [] to securely hold the computing device between the pair of confinement structures" (Figs. 16-17, 9:39-53, 9:60-62, 10:8-20); (4) control modules, a structural bridge, and a tensioning mechanism that allow the input device and computing device to "join[] together" (Fig. 35, 14:42-15:17); and (5) equivalents thereof.	compressive load [] on the computing device [] to securely hold the computing device between the pair of confinement structures" (Figs. 16-17, Col. 9:39- 53, Col. 9:60-62, Col. 10:8-20); (4) control modules, a structural bridge, and a tensioning mechanism that allow the input device and computing device to "join[] together" (Fig. 35, Col. 14:42-15:17); and (5) equivalents thereof.

See JX-0014 at 4-5.

The claim term "first means for attaching an input device to a computing device" appears in independent claim 16 and dependent claims 17, 19, and 21 of the '393 patent. JX-0001 ('393 patent) at col. 20, lns. 6-56, col. 21, lns. 3-28, col. 21, ln. 42 – col. 22, ln. 14.

Gamevice argues, in part:

> The parties dispute whether this claim term recited in dependent claims 17, 19, and 21 is subject to § 112(f) treatment. To be clear, these claims depend from claim 16, which uses the term "first means" and would be, if asserted, treated as a means-plus-function element. But as this claim term extends into dependent claims 17, 19, and 21, it is construed independently of parent independent claim 16, albeit incorporating all limitations of claim 16 per 35 U.S.C. § 112(d). *See Koninklijke Philips N.V. v. ZOLL Lifecor Corp.*, No. 2:12-cv-1369, 2016 WL 6917267, at *44 (W.D. Penn. Feb. 3, 2016). In other words, dependent claims 17, 19, and 21 should each be evaluated as though re-written in independent claim form to determine whether 35 U.S.C. § 112(f) applies.
>
> The presumption of § 112(f) treatment raised by the word "means" is overcome here because dependent claims 17, 19, and 21 each recite sufficient structure within the claim itself to perform entirely the recited function of attaching an input device to a computing device. *See Sage Prods. v. Devon Indus., Inc.*, 126 F.3d 1420, 1427-28 (Fed. Cir. 1997); *Koninklijke Philips*, 2016 WL 6917267, at

*46 (holding that even though § 112(f) governed independent claim, it did not govern dependent claim); CX-0001C, Singhose WS Q/A 274-276.

Dependent claim 17 recites that the "input device" is "a pair of control modules." JX-0001 at claim 17. Each of the pair of control modules "mechanically interact[s]" with "a corresponding confinement structure of [a] paid of confinement structures." *Id*. In turn, the "pair of confinement structures" are "interacting with the computing device and adjacent at least two opposing sides of the computing device, . . . the pair of confinement structures adapt to and are in pressing contact with said end points of the length of the computing device." *Id*. Finally, "a rigid structural bridge [is] disposed between and secured to the pair of confinement structures." *Id*. Through its express recitation of these claimed limitations related to the "pair of confinement structures" and "rigid structural bridge," claim 17 itself elaborates on the structures and provides sufficient detail to attach the input device to the computing device. Thus, claim 17 is not subject to § 112(f) treatment. *See* CX-0001C at Q/A 277.

Dependent claim 19 recites that "the input device provid[es] a pair of control modules." JX-0001 at claim 19. "[A] structural bridge secures the pair of control modules one to the other." *Id*. Claim 19 provides even more detail about how this is done: "a first of the pair of control modules compris[es] a retention mechanism communicating with the structural bridge," which "secures the structural bridge to the first of the pair of control modules." *Id*. Finally, "the pair of control modules are adjacent to and confine the computing device on at least two opposing sides of the computing device, . . . the pair of control modules each adapt to and are in pressing contact with said opposing end points of the length of the computing device." *Id*. Again, by expressly reciting these additional structural limitations related to the "pair of control modules," "structural bridge," and "retention mechanism," dependent claim 19 itself provides sufficient structural detail to the "means" for attaching the input device to the computing device. Thus, claim 19 is also not subject to § 112(f) treatment. *See* CX-0001C at Q/A 278.

Dependent claim 21 recites that "the input device provid[es] a pair of control modules." JX-0001 at claim 21. There is also "a structural bridge disposed between said first and second control module." *Id*. Two sides of the structural bridge are "in contact adjacency" with the two control modules. *Id*. At least one of the control modules comprises a "fastening latch," while the structural bridge comprises a "retention member," and "the retention member interacts with the fastening latch." *Id*. "[T]he interaction of the fastening latch with the retention member restrains the structural bridge to a control module of the pair of control modules, and the pair of control modules to the computing device." *Id*. Through its express recitation of these claimed limitations related to the "pair of control modules," "structural bridge," "retention member," and "fastening latch," claim 21 itself elaborates on the structures and provides sufficient structural detail to the "means" for attaching the input device to the computing device so that claim 21 is not subject to § 112(f) treatment. *See* CX-0001C, Singhose WS Q/A 279.

> Nintendo and OUII incorrectly conclude the dependent claims are subject to § 112(f) treatment. *See* JX-0014 at 4-5; CX-0001C at Q/A 281. As an initial matter, OUII's proposed function for this claim term fails to address the expressly recited function in the claim—"attaching an input device to a computing device." *See* JX-0014 at 4; CX-0001C, Singhose WS Q/A 288. Further, contrary to Nintendo's and OUII's position regarding their corresponding structure (3), *see* JX-0014 at 5, providing compressive load on the computing device is not a claimed function, *see* JX-0001 at claims 16-17, 19, 21; CX-0001C, Singhose WS Q/A 283-284, 289, 290-296. Nintendo's and OUII's addition of this functional language is an improper importation of limitations not recited anywhere in the claims. *See Phillips*, 415 F.3d at 1323.
>
> Moreover, Nintendo and OUII import other structures into their proposed constructions that the specification does not clearly link or associate to the claimed function of "attaching," *see B. Braun Med.*, 124 F.3d at 1424, and that are unnecessary to perform this function, *see Northrop*, 325 F.3d at 1352. For example, with regard to their corresponding structure (3), as previously discussed, adjustable fastening mechanism 320 is merely a preferred feature of one embodiment, *see* JX-0001 at 9:54-59; CX-0001C, Singhose WS Q/A 284, 290-296; CX-0182C at Q/A 431-438, implying that adjustability is not necessary. *See Therasense*, 593 F.3d at 1295-96; *Callaway*, 576 F.3d at 1346–47; *Halliburton*, 514 F.3d at 1251; *Cordis*, 339 F.3d at 1357. The '393 patent also contemplates other components like solid connection 324 and slip fit 326 to secure the structural bridge 322 to the pair of confinement structures 316. *See* JX-0001 at 9:62-67; CX-0001C, Singhose WS Q/A 284, 290-296; CX-0182C, W. Singhose Reb. WS Q/A 431-438. Finally, relevant to both corresponding structures (3) and (4), the patent links fastening mechanism 320 not to the function of attaching an input device to a computing device, but an unclaimed expansion-contraction function, *see* JX-0001 at 10:8-11; CX-0001C, Singhose WS Q/A 284, 290-296, or an unclaimed tensioning function for adjustably securing the structural bridge to the electronic game control modules, *see* JX-0001 at Fig. 28, 12:40-13:28; CX-0001C, Singhose WS Q/A 297.

Compl. Br. at 32-35.

Nintendo argues, in part:

> As noted above, claim 16 is no longer asserted, but the outer bounds of dependent claims 17–22 are circumscribed by the recited function and corresponding structures for the "first means for attaching" limitation in independent claim 16. 35 U.S.C. § 112(d) ("[Dependent claims] shall be construed to incorporate by reference all the limitations of the claim to which it refers."). Thus, the "first means for attaching" limitation in claim 16 still requires construction.

* * *

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Claim 16 recites a "first means for attaching an input device to a computing device," which all parties agree is a means-plus-function term subject to construction under Section 112(f). Nintendo and Gamevice agree on the recited function, and Nintendo and Staff agree on the proper structure. In its Prehearing Brief, Gamevice did not take a position on the construction of the "first means" limitation in independent claim 16 and therefore has waived its arguments. CPBr.31–34 & n.7 ("Gamevice does not address independent claim 16 …."). Therefore, the ALJ should adopt the corresponding structure identified by Staff and Nintendo. JX-14.5–6. To the extent Gamevice has somehow not waived its arguments, Gamevice proposes two sets of corresponding structures for the "first means," both of which are insufficient and not clearly linked to performing the recited function (omitting the additional structure identified by Staff and Nintendo). JX-14.5–6.

Gamevice's first structure is a "pair of confinement structures 316 and structural bridge 322." This structure is inadequate corresponding structure because it is missing part of the clearly linked structure that performs the recited function—a fastening mechanism. The specification only teaches the combination of confinement structures and a structural bridge as part of the embodiment described in Figure 16—the Communication Port Accessory—where an adjustable fastening mechanism 320 is taught to "facilitate[] placement of the computing device 302 between the pair of confinement structures 316" and "*securely hold* the computing device" by "application of sufficient compressive load," JX-1, 10:9–20; *see* Section 18.5. The fastening mechanism is, thus, part of the clearly linked structure for performing the recited function of "*attaching* [the] input device to [the] computing device." RX-60C, Q163–65, 171–83; RX-1824C, Q141–46, 154, 158. In fact, the Communication Port Accessory is not disclosed as capable of being attached to the computing device without the fastening mechanism. RX-60C, Q163–65, 171–83; RX-1824C, Q141–46, 154, 158. Gamevice says that the expansion/contraction caused by the fastening mechanism is a different, unclaimed, function, but that is wrong because the above disclosure is the *only* place in the specification where the recited function of attaching an input device to a computing device is clearly associated with the combination of confinement structures and a structural bridge (and a fastening mechanism). RX-60C, Q163–65, 171–83; RX-1824C, Q141–46, 154, 158. "While corresponding structure need not include all things necessary to enable the claimed invention to work, [such as an electrical outlet for a toaster,] it must include all structure that actually performs the recited function." *Default Proof,* 412 F.3d at 1298. Here, fastening mechanism 320 is disclosed as actually performing the recited function, and thus Gamevice's first proposed structure omitting that structure is inadequate.

Gamevice's second proposed structure is also inadequate. Gamevice contends that a "pair of control modules 402/404, structural bridge 422, and retention mechanism 424" are corresponding structure for the "first means for attaching." But, again, Gamevice omits critical structure that the specification

clearly links as performing the recited function. RX-60C, Q188–94; RX-1824C, Q159. The specification associates an omitted tensioning mechanism 446 with attaching the input device to a computing device: "[T]he structural bridge 422, cooperating with the tensioning mechanism 446, snugly accommodates the length … of the computing device." JX-1, 12:48–53; RX-60C, Q194. Because Gamevice's proposed structure omits part of the structure that performs the recited function, it is inadequate.

* * *

Gamevice fails to overcome the presumption that the "means"-reciting "first means for attaching" term in claims 17, 19, and 21 is subject to means-plus-function treatment. *Williamson*, 792 F.3d at 1348. Just as with Gamevice's insufficient proposed structures for "first means" in claim 16, the dependent claims do not provide sufficient structure to perform the recited function. *See Media Rights*, 800 F.3d at 1372 ("In undertaking [the § 112(f)] analysis, we ask if the claim language, read in light of the specification, recites sufficiently definite structure to avoid [means-plus-function treatment]." (citation omitted)); *Williamson*, 792 F.3d at 1349.

Claim 17. Claim 17 recites a "first means for attaching," including a pair of confinement structures and a structural bridge, but this is inadequate structure for the same reasons Gamevice's first proposed corresponding structure for claim 16 was (Section 10.6)—it omits the fastening mechanism. RX-60C, Q197; RX-1824C, Q141. Instead, the corresponding structure for this means-plus-function term in claim 17 is the structures identified by Staff and Nintendo as structure (3) (including a fastening mechanism). JX-14.6 (citing Figs. 16–17, 9:39–53, 9:60–62, 10:8–20).

Claim 19. Claim 19 recites a "first means for attaching" including a "retention mechanism" in the "control module" that "secures the structural bridge to the first of the pair of control modules, such that the structural bridge accommodates the length of the computing device." But, "retention mechanism" is indefinite. Section 10.2. Also, just as with Gamevice's second proposed corresponding structure for claim 16 (Section 10.6), the recited components are insufficient because (1) the specification links an omitted tensioning mechanism to the recited function, (2) the retention mechanism is only used in the specification to refer to something that attaches the structural bridge to the control modules (which is not the recited function), and (3) the retention mechanism would have to include all of its components to perform its function but they are absent from claim 19. JX-1, 12:48–53; RX-60C, Q188–94; RX-1824C, Q151. As a result, the corresponding structure for this means-reciting term is Staff and Nintendo's structure (4), including control modules, a structural bridge, and a tensioning mechanism that allow the input device and computing device to "join[] together." JX.14.6 (citing JX-1, Fig. 35, 14:42–15:17).

> ***Claim 21***. Claim 21 recites a "first means for attaching" including an input device with "control modules," a "structural bridge," and a "fastening latch" interacting with a "retention member" to restrain a structural bridge to a control module. But, "retention member" is indefinite. Section 10.3. Also, the specification does not teach how these components interact, let alone how they attach the input device to a computing device. RX-60C, Q199; RX-1824C, Q152–53. Instead, the corresponding structure for this means-reciting term is Staff and Nintendo's structure (2), including control modules that "secure" to a structural bridge using a confinement boss, retention member, detent, and catch. JX-14.5–6 (citing JX-1, Fig. 14–15, 8:38–49).

Resps. Br. at 42-46.

The Staff argues, in part:

> The parties agree that the term "first means for attaching an input device to a computing device" should be construed under 35 U.S.C. § 112(f) as a means-plus-function limitation. Based on the plain language of the claim, the parties agree that the claimed function is "attaching an input device to a computing device." *See* JX-0001 ('393 patent) at cl. 16.

Staff Br. at 26-27.

For the reasons discussed below, the administrative law judge has determined that the term "first means for attaching an input device to a computing device" is subject to § 112(f) within the context of claim 16, but is not subject to § 112(f) within the context of claims 17, 19, and 21.

i. Claim 16

Whether § 112(f) Applies

As a threshold issue, the administrative law judge must determine whether § 112(f) applies to the disputed term. *See Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1347-48 (Fed. Cir. 2015). The Federal Circuit has explained:

> In making the assessment of whether the limitation in question is a means-plus-function term subject to the strictures of § 112, para. 6, our cases have emphasized that the essential inquiry is not merely the presence or absence of the word "means" but whether the words of the claim are

> understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure.

Id. at 1348; *see also* The Manual of Patent Examining Procedure § 2181 (Ninth Edition, Revision 08.2017, Last Revised January 2018) ("To determine whether a word, term, or phrase coupled with a function denotes structure, examiners should check whether: (1) the specification provides a description sufficient to inform one of ordinary skill in the art that the term denotes structure; (2) general and subject matter specific dictionaries provide evidence that the term has achieved recognition as a noun denoting structure; and (3) the prior art provides evidence that the term has an art-recognized structure to perform the claimed function.").

Regarding claim 16, Gamevice and Nintendo agree that the term is subject to 35 U.S.C. § 112(f). *See* JX-0014 at 4. Gamevice and Nintendo agree that the function is attaching an input device to a computing device. *See id.*; Resps. Br. at 42-43.

Identification of Structure

Gamevice contends that the limitation is met by: (1) a pair of confinement structures 316 and structural bridge 322; (2) a pair of control modules 402/404, structural bridge 422, and retention mechanism 424; and equivalents thereof. *See* JX-0014 at 4. However, the administrative law judge finds that the confinement structures 316 and structural bridge 322 in isolation are insufficient to attach an input device to a computing device. In particular, the specification discloses an arrangement for attaching an input device to a computing device using confinement structures, a structural bridge, and an adjustable fastening mechanism that provides "sufficient compressive load [] on the computing device [] to securely hold the computing device between the pair of confinement structures." *See* JX-0001 ('393 patent) at Figs. 16-17, col. 9,

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lns. 39-53, col. 9, lns. 60-62, col. 10, lns. 8-20. Furthermore, Gamevice has omitted structures that perform the recited function.

The administrative law judge thus finds that the corresponding structure is: (1) structure 128, which allows a computer device to attach to input device 114 by nesting (Fig. 1, col. 4, lns. 46-52, col. 5, lns. 22-31, col. 6, lns. 51-57); (2) control modules that "secure" to a structural bridge using a confinement boss, retention member, detent, and catch (Fig. 14-15, col. 8, lns. 38-49); (3) confinement structures, a structural bridge, and an adjustable fastening mechanism that provides "sufficient compressive load [] on the computing device [] to securely hold the computing device between the pair of confinement structures" (Figs. 16-17, col. 9, lns. 39-53, col. 9, lns. 60-62, col. 10, lns. 8-20); (4) control modules, a structural bridge, and a tensioning mechanism that allow the input device and computing device to "join[] together" (Fig. 35, col. 14, ln. 42 – col. 15, ln. 17); and (5) equivalents thereof.

ii. Claims 17, 19, and 21

With regard to claim 17, the claim recites:

> 17. The apparatus of claim 16, in which the computing device having a length greater than its width, and wherein the first means for attaching the input device to a computing device comprising:
>
> > a pair of confinement structures, the pair of confinement structures interacting with the computing device and adjacent at least two opposing sides of the computing device, the at least two opposing sides adjacent the electronic display screen and define end points of the length of the computing device, the pair of confinement structures adapt to and are in pressing contact with said end points of the length of the computing device, each of the pair of confinement structures comprising a communication link, each of the communication links configured for electronic communication with the central processing unit;
> >
> > a rigid structural bridge disposed between and secured to the pair of confinement structures, the rigid structural bridge includes at least a passageway between the pair of confinement structures, the passageway promotes electrical communication between the communication link of a

> first confinement structure of the pair of confinement structures and the computing device, the passageway further promotes electrical communication between the communication link of a second confinement structure of the pair of confinement structures and the computing device; and
>
> wherein the input device is a pair of control modules, each control module of the pair of control modules mechanically interacting with a corresponding confinement structure of the pair of confinement structures, wherein each control module is a separate and distinct structure from the pair of confinement structures, forming no structural portion of the pair of confinement structures, and in which each of the pair of confinement structures are separate and distinct structures from the structural bridge, forming no structural portion of the structural bridge.

JX-0001 ('393 patent) at col. 20, lns. 19-56. Hence, claim 17 recites that the "first means for attaching the input device to a computing device" comprises a pair of confinement structures and a rigid structural bridge disposed between and secured to the pair of confinement structures. Moreover, the "input device" is "a pair of control modules." Each of the pair of control modules "mechanically interact[s]" with "a corresponding confinement structure of [a] paid of confinement structures." *Id*. In turn, the "pair of confinement structures" are "interacting with the computing device and adjacent at least two opposing sides of the computing device, . . . the pair of confinement structures adapt to and are in pressing contact with said end points of the length of the computing device." *Id*. Finally, "a rigid structural bridge [is] disposed between and secured to the pair of confinement structures." *Id*. Through its express recitation of these claimed limitations related to the "pair of confinement structures" and "rigid structural bridge," claim 17 itself elaborates on the structures and provides sufficient detail to attach the input device to the computing device. The administrative law judge thus finds that claim 17 conveys sufficient structure such that the claim term is not subject to § 112(f) treatment.

With regard to claim 19, the claim recites:

> 19. The apparatus of claim 16, in which the computing device having a length greater than its width, and wherein the first means for attaching the input device to a computing device comprising:
>
> > the input device in electronic communication with the central processing unit, the input device providing a pair of control modules, the pair of control modules are adjacent to and confine the computing device on at least two opposing sides of the computing device, the at least two opposing sides adjacent the electronic display screen define end points of the length of the computing device, the pair of control modules each adapt to and are in pressing contact with said opposing end points of the length of the computing device; and
> >
> > a structural bridge, the structural bridge secures the pair of control modules one to the other, and wherein a first of the pair of control modules comprising a retention mechanism communicating with the structural bridge, and wherein the retention mechanism secures the structural bridge to the first of the pair of control modules, such that the structural bridge accommodates the length of the computing device, and in which the structural bridge provides a void in the mid-section of the structural bridge, the void having right, left, upper, and lower sides, each side communicating with a material of the structural bridge.

JX-0001 ('393 patent) at col. 21, lns. 3-28. Hence, claim 19 recites that the "first means for attaching the input device to a computing device" comprises the input device providing a pair of control modules and a structural bridge securing the pair of control modules one to the other. Claim 19 provides additional detail: "a first of the pair of control modules compris[es] a retention mechanism communicating with the structural bridge," which "secures the structural bridge to the first of the pair of control modules." *Id*. Moreover, "the pair of control modules are adjacent to and confine the computing device on at least two opposing sides of the computing device, . . . the pair of control modules each adapt to and are in pressing contact with said opposing end points of the length of the computing device." *Id*. By expressly reciting these additional structural limitations related to the "pair of control modules," "structural bridge," and "retention mechanism," dependent claim 19 itself provides sufficient structural detail to the "means" for attaching the input device to the computing device. Thus, claim 19 conveys

sufficient structure such that the claim term is not subject to § 112(f) treatment.

With regard to claim 21, the claim recites:

> 21. The apparatus of claim 16, in which the computing device having a length greater than its width, and wherein the first means for attaching the input device to a computing device comprising:
>
> > the input device in electronic communication with the central processing unit of the computing device, the input device providing a pair of control modules a first control module of a pair of control modules, and a second control module of the pair of control modules, at least one of the first and the second control modules further comprising a fastening latch;
> >
> > a structural bridge disposed between said first and second control module, said structural bridge comprising a first side, said first side of said structural bridge in contact adjacency with said first control module, said structural bridge further comprising a second side, said second side of said structural bridge in contact adjacency with said second control module, said structural bridge still further comprising a retention member, the retention member interacts with the fastening latch, the interaction of the fastening latch with the retention member restrains the structural bridge to a control module of the pair of control modules, and the pair of control modules to the computing device.

JX-0001 ('393 patent) at col. 21, ln. 42 – col. 22, ln. 14. Hence, claim 21 recites that the "first means for attaching the input device to a computing device" comprises the input device providing a pair of control modules and a structural bridge disposed between said first and second control module. Two sides of the structural bridge are "in contact adjacency" with the two control modules. *Id*. At least one of the control modules comprises a "fastening latch," while the structural bridge comprises a "retention member," and "the retention member interacts with the fastening latch." *Id*. "[T]he interaction of the fastening latch with the retention member restrains the structural bridge to a control module of the pair of control modules, and the pair of control modules to the computing device." *Id*. Through its express recitation of these claimed limitations related to the "pair of control modules," "structural bridge," "retention member," and "fastening latch," claim 21 itself elaborates on the structures and provides sufficient structural

detail to the "means" for attaching the input device to the computing device so that claim 21 is not subject to § 112(f) treatment.

* * *

Accordingly, the administrative law judge has determined that the term "first means for attaching an input device to a computing device" is not subject to § 112(f) in the context of claims 17, 19, and 21.

d. "second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device" (claims 16, 18, 20, and 22)

Gamevice's Proposed Construction	Nintendo's Proposed Construction	The Staff's Proposed Construction
Independent claim 16: Subject to 35 U.S.C. § 112, ¶ 6/§ 112(f). **Function:** controlling a movement of a virtual object displayed on said electronic display screen of said computing device. **Structures**: (1) a control module (120, 252, 278, 356, 402/404, 408/410, 502/504, 543, 544, or 546); or (2) a keyboard module (164/166, 226/228, or 280); and equivalents thereof. **Dependent claims 18, 20, and 22:** Not subject to 35 U.S.C. § 112, ¶ 6/§ 112(f). This term is defined by the claim language recited in the	Subject to 35 U.S.C. § 112(f). **Function**: controlling a movement of a virtual object displayed on said electronic display screen of said computing device **Structure**: None (indefinite)	Subject to 35 U.S.C. § 112(f). **Function:** controlling a movement of a virtual object displayed on said electronic display screen of said computing device **Structures:** No disclosed algorithm. Indefinite.

respective dependent claims. No construction necessary.		

See JX-0014 at 5-6.

The claim term "second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device" appears in independent claim 16 and dependent claims 18, 20, and 22 of the '393 patent. JX-0001 ('393 patent) at col. 20, lns. 6-17, col. 20, ln. 57 – col. 21, ln. 2, col. 21, lns. 29-41, col. 22, lns. 15-27.

Gamevice argues, in part:

> The "second means" claim term as recited in dependent claims 18, 20, and 22 should not be subject to § 112(f) treatment. As with the "first means" limitation, these dependent claims should each be evaluated as though re-written in independent claim form. *See Koninklijke Philips*, 2016 WL 6917267, at *44. And here too, the presumption of § 112(f) treatment raised by the word "means" is overcome because these claims each recite sufficient structure to perform entirely the recited function of controlling a movement of a virtual object displayed on an electronic display screen of a computing device. *See Sage Prods.*, 126 F.3d at 1427-28; *Koninklijke Philips*, 2016 WL 6917267, at *46; CX-0001C, Singhose WS Q/A 303-306.
>
> Claim 18 recites "a pair of control modules." JX-0001 at claim 18. "[E]ach of the pair of control modules provides a plurality of instructional input devices" (*e.g.*, joysticks, keys, button, triggers, switches). *Id*. Further, each of the pair of control modules "is in electronic communication with the communication link of its corresponding confinement structure." *Id*. Claim 17, from which claim 18 depends, recites that "each of the communication links [is] configured for electronic communication with the central processing unit" (independent claim 16 recites that "computing device provides a central processing unit"). *Id. at* claims 16, 17. Independent claim 16 recites that a "virtual object [is] provided by an electronic game," and that the "electronic game interact[s] with said central processing unit." *Id. at* claim 16. Finally, claim 18 recites that "the instructional input devices in conjunction with the central processing unit control movement of the virtual object displayed on the electronic display screen." *Id. at* claim 18. Through its recitation of these claimed limitations, claim 18 itself elaborates on and provides the structures sufficient to control the movement of a virtual object displayed on the electronic display screen of the computing device. Thus, claim 18 is not subject to § 112(f) treatment. *See* CX-0001C, Singhose WS Q/A 307.

Claim 20 recites "a pair of control modules." JX-0001 at claim 20. "[E]ach of the pair of control modules provides instructional input devices" (*e.g.*, joysticks, keys, button, triggers, switches). *Id*. Claim 19, from which claim 20 depends, recites that "the input device providing [the] pair of control modules" is "in electronic communication with the central processing unit" (independent claim 16 recites that "computing device provides a central processing unit"). *Id. at* claims 16, 19. Independent claim 16 recites that a "virtual object [is] provided by an electronic game," and that the "electronic game interact[s] with said central processing unit." *Id. at* claim 16. Finally, claim 20 recites that "the instructional input devices in conjunction with the central processing unit control movement of the virtual object displayed on the electronic display screen." *Id. at* claim 20. Through its recitation of these claimed limitations, claim 20 itself elaborates on and provides the structures sufficient to control the movement of a virtual object displayed on the electronic display screen of the computing device. Thus, claim 20 is not subject to § 112(f) treatment. *See* CX-0001C, Singhose WS Q/A 308.

Claim 22 recites "a pair of control modules." JX-0001 at claim 22. "[E]ach . . . of the pair of control modules compris[es] a plurality instructional input devices" (*e.g.*, joysticks, keys, button, triggers, switches). *Id*. Claim 21, from which claim 22 depends, recites that "the input device providing [the] pair of control modules" is "in electronic communication with the central processing unit of the computing device" (independent claim 16 recites that "computing device provides a central processing unit"). *Id. at* claims 16, 21. Independent claim 16 recites that a "virtual object [is] provided by an electronic game," and that the "electronic game interact[s] with said central processing unit." *Id. at* claim 16. Finally, claim 22 recites that "the plurality of instructional input devices in conjunction with the central processing unit control movement of the virtual object displayed on the electronic display screen." *Id. at* claim 22. Through its recitation of these limitations, claim 22 elaborates on and provides structures sufficient to control the movement of a virtual object displayed on the electronic display screen of the computing device. Thus, claim 22 is not subject to § 112(f) treatment. *See* CX-0001C, Singhose WS Q/A 309-310.

Nintendo and OUII incorrectly argue that this claim term is an indefinite computer-implemented means-plus-function claim term because it requires disclosure of a software algorithm that does not exist in the '393 patent. *See* JX-0014 at 5-6; CX-0001C, Singhose WS Q/A 311-313. In addition to § 112(f) not applying at all, their arguments are incorrect for three reasons.

First, the intrinsic evidence clearly links the function of this claim term not to a computer or software, but to the traditional hardware controls found in dedicated video gaming consoles (*e.g.*, joysticks, buttons, triggers, and switches). *See B. Braun Med.*, 124 F.3d at 1424; CX-0001C, Singhose WS Q/A 313-314, 321-324. For example, claim 16 expressly recites that the "second means is accommodated by *said input device*," as opposed to the "computing device" that provides a central processing unit interacting with a software "electronic game."

See JX-0001 at claim 16 (emphasis added); Stern Tr. at 602:4-605:25. Rather than linking the claimed function to a computer or software, the specification teaches "*an input device* for controlling movement of a virtual object provided by the electronic game." JX-0001 at 4:16-21 (emphasis added); *see* Stern Tr. at 615:8-617:1. Figure 3 of the '393 patent shows that input device 114 provides buttons 144 and 119, joystick 142, and trigger 138 of the removable game control modules 120. JX-0001 at FIG. 3, 5:49-57; *see* Stern Tr. at 617:2-618:2. The specification teaches that "[t]he *main function* of the trigger 138, the joystick 142, and the buttons 144 and 119 of the removable game control modules 120 is to *govern the movement/actions of a playable body/object* or otherwise influence events in a video game 130 (of FIG. 1) or an alternate computer game." JX-0001 at 5:57-62 (emphasis added); *see id. at* 4:16-20, 5:33-40, 5:49-62; Stern Tr. at 619:8-620:23. Specifically, the trigger 138, the joystick 142, and the buttons 144 and 119 mechanically operate switches 140, 145, and 121 to open or close electrical circuits. *See* JX-0001 at Fig. 3, 5:49-57; Stern Tr. at 618:3-619:7. Thus, the intrinsic evidence clearly links the claimed function of ***controlling*** an object to the traditional hardware controls found in dedicated video gaming consoles, not a computer or software.

Nintendo and OUII contradict the intrinsic evidence when they regard this claim term as a computer scientist might, as opposed to how a user of the game controller or a mechanical engineer views this claim term. At trial, Nintendo's expert Dr. Stern agreed that the same claim language can be understood differently by people in different fields of technology. *See* Stern Tr. at 610:21-612:14 (if asked to "charge a flask," a chemist might fill a flask with liquid, an electrical engineer might hook it up to a battery, and a businessperson might pull out a credit card). Here, the '393 patent is primarily a mechanical patent, not a computer science patent, the person of ordinary skill in the art is primarily a mechanical engineer, and all three technical experts in this investigation are mechanical engineers. *See* CDX-0004.17; Stern Tr. at 613:12-615:7. Although a computer scientist might understand that, technically, controlling movement of a virtual object on a screen requires a combination of hardware and software, including a central processing unit, game software, communication means, display screen, firmware, device drivers, electrical power, power management circuitry, etc., the '393 patent's discussion adopts a different perspective—that of an ordinary user who considers that a game controller, with controls such as a joystick, trigger, and buttons, is for controlling the movement of a virtual object on a screen. *See* JX-0001 at 4:10-21; Stern Tr. at 605:25-611:7, 615:8-617:1.

In sum, this claim term is not a computer-implemented means-plus-function term, and thus no software algorithm is required. *See Aristocrat Technologies Australia Pty Ltd v. Int'l Game Tech.*, 521 F.3d 1328, 1333-34 (Fed. Cir. 2008), *Net MoneyIN, Inc. v. VeriSign, Inc*., 545 F.3d 1359, 1365-67 (Fed. Cir. 2008); *WMS Gaming, Inc. v. Int'l Game Tech.*, 184 F.3d 1339, 1348-49 (Fed. Cir. 1999).

> Second, even if this claim term is considered a computer-implemented means-plus-function term, this claim term does not recite a specific function performed by a special purpose computer, but only a general function that "can be achieved by any general purpose computer without special programming." *In re Katz Interactive Call Processing Patent Litigation*, 639 F.3d 1303, 1316 (Fed. Cir. 2011). Since well before the effective filing date of these claims, virtually every computer routinely included the basic operating system and firmware necessary for controlling movement of a virtual object (*e.g.*, mouse pointer, keyboard cursor) displayed on an electronic display screen of the computing device. *See* CX-0001C, Singhose WS Q/A 315-317, 325; CDX-0001C at 41. Thus, the claimed function is not a special-purpose function, and again no software algorithm is required. *In re Katz*, 639 F.3d at 1316. Moreover, contrary to Dr. Stern's arguments, Gamevice's products, firmware, and flowcharts, as well as Dr. Stern's efforts to create his own software algorithms, are all irrelevant to this analysis. *See* CX-0001C, Singhose WS Q/A 318.
>
> Third, even if this term is a computer-implemented means-plus-function term that recites a specific function performed by a special purpose computer, the '393 patent discloses in prose form a software algorithm to persons of ordinary skill in the art: the input device, in response to user input through a trigger, joystick, or buttons, uses a device driver to generate predetermined signals according to a communication protocol, which are then sent to a video game executing on the computing device resulting in control of the movement of a virtual object displayed on the electronic display screen of the computing device. *See* JX-0001 at Figs. 1, 6, 7, 10, 5:13-21, 5:32-43, 5:49-62, 6:14-27; CX-0001C, Singhose WS Q/A 326-330. Thus, this term is not indefinite.

Compl. Br. at 35-40.

Nintendo argues, in part:

> The parties agree that "second means for controlling" as recited in claim 16 is a means-plus-function term and that the function is "controlling a movement of a virtual object displayed on said electronic display screen of said computing device." JX-14.6. Staff and Nintendo agree that this means-plus-function term requires an algorithm, which is not provided in the specification, and therefore, is indefinite in claim 16. *Id.*
>
> Claims 17–22, which depend from claim 16, are also indefinite. That is, because claims 17–22 depend from claim 16, they each necessarily include the "second means" limitation. 35 U.S.C. § 112(d) ("A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.") Although claims 17, 19, and 21 recite additional limitations regarding the "first means," they are silent as to the "second means." Thus, claims 17, 19, and 21 are indefinite for the same reason as claim 16—they are computer-implemented means-plus-function claims for which no algorithm is provided.

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Claims 18, 20, and 22 are marginally different because they recite additional limitations for the "second means." But these limitations are indisputably not algorithms (the required structure for the computer-implemented function). RX-60C, Q282–86; RX-1824C, Q162–64. Thus, for the same reason that independent claim 16 and dependent claims 17, 19, and 21 are indefinite, so too are claims 18, 20, and 22. *Id*.

* * *

"Computer-implemented means-plus-function claims are indefinite unless the specification discloses an algorithm to perform the function associated with the limitation." *Noah Sys., Inc. v. Intuit Inc.*, 675 F.3d 1302, 1319 (Fed. Cir. 2012). A means-plus-function claim is computer implemented if the recited function is performed on "the disclosed structure [of] a computer, or microprocessor." *WMS Gaming*, 184 F.3d at 1349. The parties agree that the required function for the "second means" is "controlling a movement of a virtual object displayed on said electronic display screen of said computing device." JX-14.6. And both Gamevice's and Nintendo's technical experts agree that performing this function requires a microprocessor or computer. Singhose Tr. 264:11–15; Stern Tr. 621:17–622:12, 623:5–625:7, 626:16–628:1, 628:10–16; RX-60C, Q204–08, 211–15; RX-1824C, Q160–68, 173. Thus, the "second means" is a computer-implemented means-plus-function term requiring an algorithm be disclosed.

The intrinsic evidence confirms this understanding. The "computing device," recited as displaying the virtual object to be controlled, is agreed to be "electronic equipment *controlled by a CPU*." JX-14.2. A CPU is a microprocessor, Singhose Tr. 259:11–13; Stern Tr. 628:6–16, and since the "*computing* device" must perform at least part of the recited function in order for the virtual object it displays to be controlled, the function is indisputably performed on a computer or microprocessor. Stern Tr. 623:5–625:7; RX-60C, Q208; RX-1824C, Q165–67, 173. Gamevice's alleged corresponding structures (control module and keyboard module) are also disclosed as having (and requiring) microprocessors to perform the recited function. Singhose Tr. 261:10–15; Stern Tr. 621:17–622:12, 627:4–628:1; CX-1C, Q323–24 (identifying input device 114, which is disclosed as having a CPU, JX-1, Figs. 6, 7, 5:32–43); RX-1824C, Q165–67. Furthermore, "[i]f the [recited function] were implemented in hardware we would expect the patent to describe or refer to the circuitry of the controller that would be required for a hardware controller to perform the claimed function. The [asserted] patent does not do so," *Sony Corp. v. Iancu*, 924 F.3d 1235, 1240 (Fed. Cir. 2019). Singhose Tr. 260:20–261:1 (confirming there is no disclosed circuitry); RX-60C, Q204–08, 279–80; RX-1824C, Q165–67.

The extrinsic evidence is also consistent. It is undisputed, for example, that Gamevice's products (allegedly practicing the claims) have no way to perform the recited function without software that can interpret commands from the buttons, triggers, and joysticks, software that can package those commands and send them

to the computing device, and software in the computing device that can interpret those signals and control movement of a virtual object in a game. RX-60C, Q209–47; RX-1824C, Q165–67, 179–80; JX-28C, 319:15–320:1. There are numerous places along the way from pushing a button to performing the recited function of controlling movement on a display screen that can *only* be carried out on a computer or microprocessor programmed with software. *Id*.

* * *

"It is only in the rare circumstances where any general-purpose computer without any special programming can perform the function that an algorithm need not be disclosed." *Ergo Licensing, LLC v. CareFusion 303, Inc.*, 673 F.3d 1361, 1365 (Fed. Cir. 2012) (internal quotation marks omitted). "[S]pecial programming does not denote a level of complexity," but instead "includes *any* functionality that is not coextensive with a microprocessor or general purpose computer." *EON Corp. IP Holdings v. AT&T Mobility*, 785 F.3d 616, 623 (Fed. Cir. 2015) (internal quotation marks omitted). Therefore, "a microprocessor can serve as structure for a computer-implemented function *only* where the claimed function is 'coextensive' with a microprocessor itself"—exemplary coextensive functions include "receiving data, storing data, and processing data," *id.* at 621–22 (internal quotation marks omitted), which are generally part of a microprocessor's instruction set. RX-60C, Q248–51, 264–274; RX-1824C, Q169–74; RX-1469; RX-1478.

This is not one of those rare instances where the recited function can be performed without any additional programming. *Id*. There is no dispute that the recited function is not part of the microprocessor's instruction set, as it requires additional firmware/software to be performed. *Id*.; Singhose Tr. 266:5–15; CPBr.37. Gamevice argues that the algorithms to control movement of a mouse, for example, have been "built-in" or pre-programmed for a long time, CPBr.37–38, but this misses the point: An algorithm's status as purportedly "built in," or pre-programmed, has no bearing on whether the function is co-extensive with the microprocessor—which is the only exception to the Algorithm Rule. *EON*, 785 F.3d at 621–22. Nor does mouse software—built in or otherwise—have anything to do with the recited function of "controlling a movement of a virtual object displayed on said electronic display screen of said computing device." Because the agreed function for the "second means" is not coextensive with the microprocessor itself, an algorithm is the required corresponding structure.

* * *

Because (1) an algorithm/software is required to perform the computer-implemented "second means" function recited in claims 16–22, and (2) the specification lacks disclosure of an adequate algorithm clearly linked or associated with this claimed function, claim 16 and its dependent claims, claims 17–22, are indefinite.

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Resps. Br. at 35-42.

The Staff argues, in part:

> The parties agree that the term "second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device" is a means-plus-function limitation subject to 35 U.S.C. § 112(f). In addition, the parties agree that the claimed function is "controlling a movement of a virtual object displayed on said electronic display screen of said computing device." The parties, however, dispute whether the specification of the '393 patent discloses any corresponding structure. *See* Compl. P.H. Br. at 34-38; Resps. P.H. Br. at 50-56.
>
> The Federal Circuit has stated that:
>
> > In cases involving a computer-implemented invention in which the inventor has invoked means-plus-function claiming, this court has consistently required that the structure disclosed in the specification be more than simply a general purpose computer or microprocessor. The point of the requirement that the patentee disclose particular structure in the specification and that the scope of the patent claims be limited to that structure and its equivalents is to avoid pure functional claiming.
>
> *Aristocrat Techs. Australia v. Intern. Game Tech.*, 521 F.3d 1328, 1333 (Fed. Cir. 2008). For computer-implemented functions, the corresponding structure is the algorithm disclosed in the specification. *Harris Corp. v. Ericsson Inc.*, 417 F3d 1241, 1249 (Fed. Cir. 2005).
>
> Here, it is clear from the specification of the '393 patent that the function of "controlling a movement of a virtual object on displayed on said electronic display screen of said computing device" is a computer-implemented function. *See* RX-0060C (Stern WS) at Q/A 200-286. And, thus, because the '393 patent fails to disclose any function to perform the claimed function, claims 16-22 are indefinite. *See* Resps. P.H. Br. at 50-56; RX-0060C (Stern WS) at Q/A 281, 284.

Staff Br. at 28-29.

For the reasons discussed below, the administrative law judge has determined that the term "second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device" is subject to § 112(f), that the relevant function is "controlling a movement of a virtual object displayed on said electronic display screen of said

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computing device," and that the specification discloses no corresponding structure. Hence, claims 16, 18, 20 and 22 are indefinite.

i. Whether § 112(f) Applies

As a threshold issue, the administrative law judge must determine whether § 112(f) applies to the disputed term. *See Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1347-48 (Fed. Cir. 2015). The Federal Circuit has explained:

> In making the assessment of whether the limitation in question is a means-plus-function term subject to the strictures of § 112, para. 6, our cases have emphasized that the essential inquiry is not merely the presence or absence of the word "means" but whether the words of the claim are understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure.

Id. at 1348; *see also* The Manual of Patent Examining Procedure § 2181 (Ninth Edition, Revision 08.2017, Last Revised January 2018) ("To determine whether a word, term, or phrase coupled with a function denotes structure, examiners should check whether: (1) the specification provides a description sufficient to inform one of ordinary skill in the art that the term denotes structure; (2) general and subject matter specific dictionaries provide evidence that the term has achieved recognition as a noun denoting structure; and (3) the prior art provides evidence that the term has an art-recognized structure to perform the claimed function.").

Here, the term "second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device" is functional because a person of ordinary skill in the art would not understand the term to have a sufficiently definite meaning as the name for a structure. *See* RX-0060C (Stern DWS) at Q/A 203.

With regard to claim 18, the claim recites:

> 18. The apparatus of claim 17, in which the second means for controlling movement of the virtual object displayed on said electronic display comprising:

> each control module of the pair of control modules is in electronic communication with the communication link of its corresponding confinement structure, each of the pair of control modules provides a plurality of instructional input devices, wherein said instructional input devices are adjacent each of the at least two opposing sides of the computing device, and wherein the instructional input devices in conjunction with the central processing unit control movement of the virtual object displayed on the electronic display screen.

JX-0001 ('393 patent) at col. 20, ln. 57 – col. 21, ln. 2. The phrases following the "second means for controlling movement of the virtual object displayed on said electronic display" recite actions: each control module must be "in electronic communication" with other components, and the instructional input devices in conjunction with the central processing unit thereby "control movement of the virtual object displayed on the electronic display screen." This indicates that the "second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device" would not be understood as a structure. Further, claim 18 and all of the other claims in the patent do not impose any structural attributions to the second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device beyond that the instructional input devices are adjacent each of the at least two opposing sides of the computing device. Thus, the claims do not convey structure.

With regard to claim 20, the claim recites:

> 20. The apparatus of claim 19, in which the second means for controlling a movement of a virtual object displayed on said electronic display comprising:
>
> > a communication link, the communication link facilitates communication between the pair of control modules and the central processing unit, each of the pair of control modules provides instructional input devices, wherein said instructional input devices are adjacent each of the at least two opposing sides of the computing device, wherein the instructional input devices in conjunction with the central processing unit control movement of the virtual object displayed on the electronic display screen.

JX-0001 ('393 patent) at col. 21, lns. 29-41. Here, the "second means for controlling movement

of the virtual object displayed on said electronic display" comprises a communication link, but the communication link is defined by its facilitation of communication between the pair of control modules. Otherwise, this claim is similar to claim 18 in that the instructional input devices in conjunction with the central processing unit thereby "control movement of the virtual object displayed on the electronic display screen." This indicates that the "second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device" would not be understood as a structure. Further, claim 20 and all of the other claims in the patent do not impose any structural attributions to the second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device beyond the communication link and that the instructional input devices are adjacent each of the at least two opposing sides of the computing device. Thus, the claims do not convey structure.

With regard to claim 22, the claim recites:

> 22. The apparatus of claim 21, in which the second means for controlling a movement of the virtual object displayed on said electronic display comprising:
>
> > a communication link, the communication link facilitates communication between the pair of control modules and the central processing unit of the computing device; and
> >
> > each the first and the second control modules of the pair of control modules comprising a plurality instructional input devices, and wherein the plurality of instructional input devices in conjunction with the central processing unit control movement of the virtual object displayed on the electronic display screen.

JX-0001 ('393 patent) at col. 22, lns. 15-27. Here, the "second means for controlling movement of the virtual object displayed on said electronic display" comprises a communication link, but the communication link is defined by its facilitation of communication between the pair of control modules. Otherwise, this claim is similar to claim 18 in that the instructional input

devices in conjunction with the central processing unit thereby "control movement of the virtual object displayed on the electronic display screen." This indicates that the "second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device" would not be understood as a structure. Further, claim 22 and all of the other claims in the patent do not impose any structural attributions to the second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device beyond the communication link and that the instructional input devices are adjacent each of the at least two opposing sides of the computing device. Thus, the claims do not convey structure.

The specification also fails to provide a sufficient description of structure. The phrase "second means" only appears in the claims of the '393 patent. Gamevice argues that "the specification teaches '*an input device* for controlling movement of a virtual object provided by the electronic game.'" Compl. Br. at 38 (quoting JX-0001 ('393 patent) at col. 4, lns. 16-21 (emphasis added)). However, Gamevice's expert, Dr. Singhose, testified that "controlling a movement of a virtual object displayed on said electronic display screen of said computing device" requires a microprocessor or computer. Singhose Tr. 264.

Moreover, Gamevice's argument that the claim recitations provide sufficient structure is unconvincing because there is no disclosure of the requisite circuitry sufficient to perform the recited function (without software) and the alleged controls require a microprocessor to implement the recited function. *See id.* at 260–261. Thus, the "second means" is a computer-implemented means-plus-function term, requiring disclosure of an algorithm.

ii. Identification of Structure and Function

In *Williamson*, the Federal Circuit explained:

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> Construing a means-plus-function claim term is a two-step process. The court must first identify the claimed function. *Noah Sys., Inc. v. Intuit Inc.*, 675 F.3d 1302, 1311 (Fed. Cir. 2012). Then, the court must determine what structure, if any, disclosed in the specification corresponds to the claimed function. Where there are multiple claimed functions, as we have here, the patentee must disclose adequate corresponding structure to perform all of the claimed functions. *Id.* at 1318-19. If the patentee fails to disclose adequate corresponding structure, the claim is indefinite. *Id.* at 1311-12.

792 F.3d 1339 at 1351-52.

Here, the relevant function is "controlling a movement of a virtual object displayed on said electronic display screen of said computing device."

Gamevice argues that "this claim term does not recite a specific function performed by a special purpose computer, but only a general function that 'can be achieved by any general purpose computer without special programming.'" Compl. Br. at 39 (quoting *In re Katz Interactive Call Processing Patent Litigation*, 639 F.3d 1303, 1316 (Fed. Cir. 2011)). However, "controlling a movement of a virtual object displayed on said electronic display screen of said computing device" differs from "processing," "receiving," and "storing", which were the functions recited in *Katz*. *See* 639 F.3d at 1316. There is no record evidence that the agreed function is equivalent to the functions of "receiving data, storing data, and processing data." *EON Corp. IP Holdings v. AT&T Mobility*, 785 F.3d 616, 621-22 (Fed. Cir. 2015). The administrative law judge finds that "controlling a movement of a virtual object displayed on said electronic display screen of said computing device" requires the disclosure of an algorithm.

Gamevice further argues that "the '393 patent discloses in prose form a software algorithm to persons of ordinary skill in the art: the input device, in response to user input through a trigger, joystick, or buttons, uses a device driver to generate predetermined signals according to a communication protocol, which are then sent to a video game executing on the

computing device resulting in control of the movement of a virtual object displayed on the electronic display screen of the computing device." Compl. Br. at 40 (citing JX-0001 ('393 patent) at Figs. 1, 6, 7, 10, col. 5, lns. 13-21, col. 5, lns. 32-43, col. 5, lns. 49-62, col. 6, lns. 14-27). However, "an algorithm is [ ] a step-by-step procedure for accomplishing a given result" and may be described in "mathematical formula, in prose, or as a flow chart, or in any other manner that provides sufficient structure." *Ergo Licensing, LLC v. CareFusion 303, Inc.*, 673 F.3d 1361, 1365 (Fed. Cir. 2012). The cited portions of the specification do not disclose the required algorithm (*i.e.*, a step-by-step process for performing the recited function). RX-0060C (Stern DWS) at Q/A 252-62; RX-1824C (Stern RWS) at Q/A 175-78.

* * *

Accordingly, the administrative law judge has determined that (1) the term "second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device" is subject to § 112(f); (2) the relevant function is "controlling a movement of a virtual object displayed on said electronic display screen of said computing device"; and (3) there is no corresponding structure, rendering claims 16, 18, 20 and 22 indefinite.

e. "structural bridge" (claims 1, 2, 4, 7-10, 12, 17, 19, and 21)

Gamevice's Proposed Construction	Nintendo's Proposed Construction	The Staff's Proposed Construction
plain and ordinary meaning, *e.g.*, a physical apparatus that connects other components	a load bearing apparatus providing connection and support across a span	Plain and ordinary meaning, which is: a physical apparatus that connects other components across an obstacle or space

See JX-0014 at 6.

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The claim term "structural bridge" appears in claims 1, 2, 4, 7-10, 12, 17, 19, and 21 of the '393 patent. JX-0001 ('393 patent) at col. 17, ln. 53 – col. 18, ln. 24, col. 18, lns. 29-31, col. 18, ln. 44 – col. 19, ln. 17, col. 19, lns. 24-47, col. 20, lns. 19-56, col. 21, lns. 3-28, col. 21, ln. 42 – col. 22, ln. 14.

Gamevice argues, in part:

> Gamevice and Nintendo disputed the construction of this term in the 1111 Investigation as well. There, Nintendo pursued a narrow construction that required, among other things, that the structural bridge be "separate from, and external to, the computing device." JX-0015 at 69. The ALJ rejected that argument, calling it "improper," and adopted Gamevice's plain and ordinary meaning proposal of "a physical apparatus that connects other components." *See generally id.* at 65-71. Gamevice proposes the same construction in this investigation, while Nintendo has shifted to a new and different construction that, in fact, is actually an effort to reintroduce its rejected "separate from, and external to, the computing device" limitation from the 1111 Investigation. *See, e.g.,* RX-0006C, Stern WS, Q/A 325.
>
> The intrinsic evidence supports the original 1111 construction that the "structural bridge" is "a physical apparatus that connects other components." *See* JX-0014 at 6. The claim language consistently describes the "structural bridge" as connecting other components—a pair of control modules to each other, or a pair of confinement structures to each other. *See* JX-0001 at claims 1, 8, 12, 17, 19, 21; CX-0001C, Singhose WS Q/A 134-136. Consistent with the claims, as shown in CDX-0001C at 16, the '393 patent discloses that structural bridge 258 connects a pair of control modules 252, structural bridge 322 connects a pair of confinement structures 316, structural bridge 422 connects a pair of control modules 402/404, and structural bridge 522 connects a pair of control modules 502/504. *See* JX-0001 at Figs. 14, 16, 26, 31, 35, 43, Abstract, 1:43-45, 8:40-42, 9:60-62, 14:19-23; CX-0001C, Singhose WS Q/A 137-138; *see also* CX-0182C, W. Singhose Reb. WS Q/A 428-430 (discussing bridge structure that connects control modules in U-shaped structure). For example, the '393 patent states: "Collectively, *and when joined together, by way of a structural bridge 522*, the input device 500, and the computing device 506, form an electronic gaming system 511, as shown in FIG. 36." JX-0001 at 14:48-54 (emphasis added); CX-0001C at Q/A 138. OUII's proposed construction is similar to Gamevice's, but adds that the connection is made by the structural bridge "across an obstacle or space." *See* JX-0014 at 6. That additional requirement is unnecessary because any connection would at least be across some space. *See* CX-0001C, Singhose WS Q/A 139.
>
> Nintendo's new proposed construction—"a load bearing apparatus providing connection and support across a span"—unlike Gamevice's and OUII's,

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> fails to identify what the structural bridge connects. *See id. at* Q/A 142. Further, it improperly imports limitations into the claims. *See Phillips*, 415 F.3d at 1323. First, Nintendo's expert, Dr. Stern, incorrectly argues that the "providing connection and support across a span" language in Nintendo's proposed construction requires that the "structural bridge" be external to the claimed "computing device." *See* CX-0001C, Singhose WS Q/A 144. Again, that is an attempt to resurrect the same "separate from, and external to, the computing device" construction that the ALJ rejected in the 1111 Investigation. And regardless, such an interpretation improperly reads a feature of the preferred embodiments into the claims. *See Hill-Rom Servs. v. Stryker Corp*., 755 F.3d 1367, 1371-72 (Fed. Cir. 2014); CX-0001C, Singhose WS Q/A 144. Dr. Stern fails to meet the "exacting" standard for clear disavowal of claim scope. *See Thorner*, 669 F.3d at 1365-66; CX-0001C, Singhose WS Q/A 145, 151-152; CDX-0001C at 36. On the contrary, the '393 patent is replete with discussions that do not constrain the structural bridge's location relative to the computing device. *See* JX-0001 at Abstract, 1:49-54 (summary of the invention), 4:23-31, 4:61- 5:2, 11:42-49, 11:59-12:1; CX-0001C at Q/A 145-147; CDX-0001C at 32-35. In other contexts, however the '393 patent makes clear that things should be "separate" or distinct, for example requiring that the "pair of confinement structures" be "separate and distinct structure[s]" from the "structural bridge" and "electronic game control modules," *see* JX-0001 at claims 1, 17; *see also id. at* 9:39-53, showing that the patent's lack of restriction on the structural bridge's location relative to the computing device is deliberate, *see* CX-0001C, Singhose WS Q/A 144-149.

Compl. Br. at 18-21.

Nintendo argues, in part:

> In the 1111 Investigation, the ALJ construed "structural bridge" as "a physical apparatus that connects other components," which Gamevice proposes here. Both Staff and Nintendo propose slightly different constructions. Staff proposes: "plain and ordinary meaning, which is: a physical apparatus that connects other components across an obstacle or space." And Nintendo proposes: "a load bearing apparatus providing connection and support across a span." JX-14.7.
>
> The term "structural bridge" is not a term of art but rather was coined by the patent prosecutor and named inventor. JX-19C, 78:2–22 ("Q. … [W]ho came up with the phrase 'structural bridge'? A. I did."); RX-60C, Q311–20, 332–36; RX-1824C, Q61–67. Such "terms coined by the inventor are best understood by reference to the specification," *3M Innovative Props. Co. v. Tredegar Corp.*, 725 F.3d 1315, 1321 (Fed. Cir. 2013).
>
> Throughout the specification, the term "structural bridge" is used to refer to a specific component of the game controller that provides connection and support across the span of the attached computing device and bears the load of that separate device. RX-60C, Q321–36; RX-1824C, Q67, 70–81. Earlier patents in the family

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recited a "bridge" and used the term "bridge structure," not "structural bridge," to describe a portion of the U-shaped accessory shown in Fig. 1. *E.g.*, RX-209 (U.S. Patent No. 8,944,912), claim 1, 3:4–14; *see* RX-60C, Q318–20; RX-1824C, Q67, 308. Thereafter, the term "structural bridge" entered the specification to describe a particular component—namely the middle structure of the gaming accessory that tethers together its two halves, either the control modules (Figs. 14–15 and Figs. 26–40) or the confinement structures (Figs. 16–25). RX-60C, Q321–31; RX-1824C, Q301–16. The structural bridge, exclusively disclosed as part of the gaming accessory and not the computing device, RX-60C, Q321–36; RX-1824C, Q74–81, 301–06; *see* Section 18.4, is taught to be central to attaching the gaming accessory to the computing device by providing connection and load-bearing support across the span of the attached computing device. JX-1, 14:51–54; RX-60C, Q331; RX-1824C, Q70–73.

The specification's use of "structural bridge" is further consistent with both the colloquial meaning of a "bridge" (*e.g.*, a dental "bridge" spans and provides support across the gap in one's teeth, RX-1824C, Q66), and its plain and ordinary meaning to a POSA (*e.g.*, "A structure erected to *span* natural or artificial obstacles, such as rivers, highways, or railroads and *supporting* a footpath or roadway for pedestrian, highway, or railroad traffic." RX-1824C, Q64–66 (quoting RX-1410); RX-60C, Q337–43. Nintendo's construction is also consistent with the plain meaning of "structural"; for example, McGraw-Hill Dictionary of Engineering (2d Ed.) defines "structure" as "[s]omething, as a *bridge* or a building, that is built or constructed and designed to *sustain a load*." RX-1824C, Q64–66 (quoting RX-1410).

* * *

Gamevice argues that the "structural bridge" is taught to connect different components of the gaming controller, so that is its meaning, CPBr.18–19, but this titular component of the gaming accessory, JX-1, (54), is not so simplistic—a screw, or piece of tape or thread, or a nail may each be a "physical apparatus that connects other components" but no POSA would confuse them with the "structural bridge" in this patent. RX-1824C, Q68; RX-60C, Q337–43. The specification describes the "structural bridge" as more than simply some *thing* that connects other arbitrary components; it, instead, connects the two halves of the game controller together and provides support such that the accessory can be attached to a computing device. RX-60C, Q331; RX-1824C, Q70–73. Gamevice's construction is not consistent with this disclosure.

Resps. Br. at 15-21 (footnotes omitted).

The Staff argues, in part:

The parties dispute the meaning of the term "structural bridge" as it appears in claims 1, 2, 4, 7-10, 12, 17, 19, and 21 of the '393 patent. The Staff submits that

> the term should be afforded its plain and ordinary meaning, which is "a physical apparatus that connects other components across an obstacle or space." This construction is largely consistent with what Gamevice proposes. The only difference is that the Staff adds the language "across an obstacle or space." According to Gamevice's expert, Prof. Singhose, "this language is superfluous because any connection between two different components would be across a space." CX-0001C (Singhose WS) at Q/A 130. The Staff disagrees – two components could be connected directly together, for example, by using a screw or rivet such that there is no space between the components. The Staff, however, does not agree that the screw or rivet would be a "structural bridge." The term bridge connotes a connection across a distance. The Staff is of the view that Gamevice's proposed construction fails to capture the full meaning of the term "bridge." The Staff is also of the view that Nintendo's proposed construction is incorrect because it is based on a different meaning of the term "bridge" that corresponds to the plain meaning that a driver of an automobile would attribute to the term when a bridge is encountered on a roadway. Clearly, the specification of the '393 patent is not referring to the same sort of structure.
>
> The Staff thus submits that the term "structural bridge" should be construed to mean "a physical apparatus that connects other components across an obstacle or space."

Staff Br. at 29-30.

For the reasons discussed below, the administrative law judge has determined to construe "structural bridge" as "a physical apparatus that connects other components."

The claims use the words "structural bridge" in a plain and ordinary manner. Construing "structural bridge" as "a physical apparatus that connects other components" expounds on the meaning of the term in a manner that is consistent with the specification. Nintendo's proposed construction add requirements (*i.e.*, "load bearing apparatus" and "providing connection and support across a span") to the term that are not readily consistent with the claims. In particular, as Gamevice notes, Nintendo's construction improperly imports limitations into the claims. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005) (en banc). Nintendo adds a requirement that the "structural bridge" be load-bearing, but this requirement is not found in the specification and adds ambiguity. *See* JX-0014 at 6; CX-0001C (Singhose DWS) at Q/A 140,

153-54. Moreover, Nintendo imports a requirement that the "structural bridge" provide "support" across a span, but this reads in attributes of the specification's preferred embodiments, and is unclear in terms of how this limitation relates to or differs from the load-bearing requirement. *See id.* at Q/A 141.

The specification also supports construing "structural bridge" as "a physical apparatus that connects other components." For example, the specification describes the structural bridge as a connective piece that secures the pair of control modules to each other and that secures the pair of confinement structures to each other. *See* JX-0001 ('393 patent) at col. 1, lns. 43-46, col. 8, lns. 40-42, col. 9, ln. 67 – col. 10, ln. 7, col. 15, lns. 5-10. The specification does not describe the structural bridge as a "load bearing apparatus" as Nintendo proposes, and does not recite that the bridge "provid[es] connection and support across a span."

Accordingly, the administrative law judge has determined that the disputed claim term "structural bridge" should be construed to mean "a physical apparatus that connects other components."

f. "retention member" (claim 21)

Gamevice's Proposed Construction	Nintendo's Proposed Construction	The Staff's Proposed Construction
a component with a recess or opening that securely receives or catches the fastening latch	Subject to 35 U.S.C. § 112(f). **Function**: interacting with the fastening latch, the interaction of the fastening latch with the retention member restrains the structural bridge to a control module of the pair of control modules, and the pair of control modules to the computing device of control modules to the computing device	Subject to 35 U.S.C. § 112(f). **Function**: interacting with the fastening latch, the interaction of the fastening latch with the retention member restrains the structural bridge to a control module of the pair of control modules, and the pair of control modules to the computing device

	Structure: None (indefinite)	**Structure:** None (Indefinite)

See JX-0014 at 6-7, Staff Br. at 30-32.

The claim term "retention member" appears in dependent claim 21 of the '393 patent. JX-0001 ('393 patent) at col. 21, ln. 42 – col. 22, ln. 14.

Gamevice argues, in part:

> The ordinary meaning of "retention" refers to retaining or securing something, and "member" refers to a component of a mechanism. *See* CX-0001C, Singhose WS Q/A 239-242; CX-0100 at 7. Also, claim 21 recites that "the retention member interacts with the fastening latch." Applying the ordinary meanings of the individual words of this phrase in the specific context of claim 21, persons of ordinary skill in the art would thus construe this term as "a component with a recess or opening that securely receives or catches the fastening latch," as Gamevice proposes. *See* JX-0014 at 6-7; CX-0001C, Singhose WS Q/A 239-242.
>
> Nintendo and OUII argue that this term should be subject to § 112(f) treatment. *See* JX-0014 at 6-7. As with several other terms, this term does not recite the word "means," raising the presumption that it is not subject to § 112(f) treatment. *See Williamson v. Citrix Online*, LLC, 792 F.3d 1339, 1349 (Fed. Cir. 2015) (en banc); CX-0001C, Singhose WS Q/A 243-245, 259. Nor was this term treated as a means-plus-function element during prosecution. *See* JX-0002, '393 patent file history at 349-50, 390.
>
> The term "retention mechanism" is a commonly used phrase in mechanical engineering and should be given its plain meaning in the same way as "structural bridge" and "passageway," which OUII and Nintendo agree are *not* means-plus-function terms. *See* CX-0001C at Q/A 260-261, 270. Nintendo and OUII fail to overcome the presumption against § 112(f) treatment here because this term, properly read in the context of the surrounding claim language and specification, recites sufficiently definite structure. *See Williamson*, 792 F.3d at 1349.
>
> Claim 21 recites that the "retention member" is located within the structural bridge, and that it interacts with a "fastening latch" that is part of one of the control modules, because of which the structural bridge is "restrain[ed]" to the control module, and the control module is restrained to the computing device. JX-0001 at claim 21; CX-0001C at Q/A 246, 262. Moreover, because the structural bridge is being restrained to the control module by the interaction of the "retention member" with the fastening latch, both sides of the structural bridge are in "contact adjacency" with the respective control modules. JX-0001 at claim 21; CX-0001C, Singhose WS Q/A 246, 262. The "interact[ion]", "restrain[ing]," and "contact

adjacency" limitations describe the structural arrangement of the "retention member" relative to the control module and the structural bridge, not a functional relationship between them. *Id*. Thus, the claim language shows that "retention member" is not functionally claimed under § 112(f), but instead describes sufficiently definite structure. *See id*.

The patent's drawings and specification confirm the structural attributes of the claimed "retention member" in the description of retention member 266 and boss 430. *See* JX-0001 at Fig. 14, 8:38-46 (retention member 266 that interacts with catch 268); CDX- 0001C.24; JX-0001 at Figs. 27, 29, 12:4-39 (boss 430 that interacts with adjustment structure 432); CX-0001C, Singhose WS at Q/A 248-249, 263, 267-269. Nintendo's expert, Dr. Stern, fails to credit the patent's teaching of specific structural attributes of the claimed "retention member." *See* CX-0001C at Q/A 257, 262-270. Thus, this term is similar to others like "detent mechanism," "reciprocating member," "eyeglass hanger member," "sealingly connected joints," "connector assembly," "digital detector," "modernizing device," and "computing unit" that the courts have held do not invoke § 112(f) treatment. *See* CX-0001C at Q/A 261; *Inventio*, 649 F.3d at 1357-60; *CCS*, 288 F.3d at 1369-70; *Watts*, 232 F.3d at 881; *Al-Site*, 174 F.3d at 1318-19; *Personalized Media*, 161 F. 3d at 704-05; *Greenberg*, 91 F.3d at 1583-84.

OUII's identified function fails to account for the claimed word "retention" in "retention member," instead referencing the "interacts" and "restrains" limitations from claim 21 that actually describe the structural arrangement of the "retention mechanism" relative to the "control module" and the "structural bridge." *See* JX-0001 at claim 21; CX-0001C at Q/A 251-252. Moreover, OUII proposes identical corresponding structures for "retention member" and "retention *mechanism*," which cannot be correct. Compare JX-0001 at 6-7 *with id. at* 3-4. Rather than the entire retention mechanisms identified in OUII's corresponding structures, the retention member 266 and boss 430 alone are the correct corresponding structures for "retention member," assuming that § 112(f) treatment applies. *See* CX-0001C, Singhose WS Q/A 253-254.

Nintendo's identified function suffers from the same problem as OUII's. *See* JX-0001 at claim 21; CX-0001C, Singhose WS Q/A 255-256, 264. Moreover, Nintendo again incorrectly argues that this term is indefinite because the specification fails to disclose any structure corresponding to this claim term. *See* JX-0014 at 6-7; CX-0001C at Q/A 255-256. But, to the extent that this term is subjected to § 112(f) treatment, the '393 patent clearly links retention member 266 and boss 430 to this claim term, as discussed above. *See* CX-0001C at Q/A 253-254; *B. Braun Med.*, 124 F.3d at 1424. Thus, this term is not indefinite.

Compl. Br. at 29-31 (footnote omitted).

Nintendo argues, in part:

Staff and Nintendo agree that "retention member" is a means-plus-function term (same as in the 1111 Investigation, JX-15.81; RX-64.41), but Gamevice disagrees. Staff and Nintendo also agree on the recited function but disagree regarding the existence of corresponding structure. JX-14.7–8. Gamevice's construction, *compare* RX-120.12–13, *with* JX-14.7 (only replacing detent with latch from its construction that was rejected by the Commission in the 1111 Investigation), is neither the plain and ordinary meaning of the term nor does it comport with the appropriate means-plus-function analysis described above. RX-60C, Q306–10; RX-1824C, Q121–37.

"Retention member" is recited with nearly identical functional claim language as it was in the 1111 Investigation, replacing "fastening detent" with a new term "fastening latch" and adding the additional function of restraining "the pair of control modules to the computing device." *Compare* RX-92 ('498 patent), claim 16, *with* JX-1, claim 21. The claim language does not "impose any structural attributes" for the term, RX-64.30 (citing JX-15.79); RX-60C, Q291, 294; RX-1824C, Q126, and the specification (including Figure 14) "fails to provide a sufficient description of structure" for the "retention member," as it "describes what the retention member does, rather than describing the retention member's physical attributes," JX-15.79–80; RX-60C, Q293–94, 303–06, 309; RX-1824C, Q127–30. Furthermore, the "retention member" is now recited to interact with a "fastening *latch*" to restrain the control modules to the computing device, but there is disclosed in the specification neither a "fastening latch" (which is different from a "fastening *detent,*" RX-60C, Q298–99; 1824C, Q865), nor sufficient structure for performing the additional recited function. JX-1, 8:38–42; RX-60C, Q293–94, 298–99; RX-1824C, Q121, 127, 137.

Gamevice's interconnectedness arguments fail to elucidate the structure of "retention member" in the same way as for confinement structures (Section 10.1.1) and retention mechanism (Section 10.2.1). RX-60C, Q290–93, 309–10; RX-1824C, Q126–30; *see Media Rights*, 800 F.3d at 1372–73. Indeed, Gamevice's alleged structural limitations are, in fact, merely functions. *Compare* CPBr.29 (pointing to something that "*interacts* with catch 268" or "*interacts* with adjustment structure 432"), *with* RX-64.33 (Commission concluding that "interacts" is a "functional descriptor"); RX-60C, 290–92, Q309–10; RX-1824C, Q126. Thus, means-plus-function treatment is required. RX-60C, Q287–94; *see MTD*, 933 F.3d at 1341.

There is no disclosed corresponding structure clearly linked and adequate to perform the recited functions. RX-60C, Q295–305; RX-1824C, Q131–37; RX-1824C.A, Q134. Retention member 266 in Figure 14 (and the associated text) is the only disclosure of a retention member but it is simply depicted as a circle with a description that "[t]he fastening *detent* 264 interacts with a retention member 266 … to *secure the structural bridge 258, to the pair of control modules* 252," JX-1, 8:40–42. RX-64.42–44; RX-60C, Q297–302. This disclosure does not clearly link any structure to the function recited in claim 21, which requires the "retention

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member" interact with a "fastening *latch*" (not a fastening *detent*) such that it restrains the "pair of control modules to the computing device" (not just the structural bridge to the control modules). RX-60C, Q301–02, 309; RX–1824C, Q127–30, 136–37; *Media Rights*, 800 F.3d at 1374 (requiring corresponding structure "perform *all* of the claimed functions" (emphasis in original)). The same deficiencies are also present in the disclosure of Figure 27, which not only describes a "retention *mechanism*" rather than a "retention member," but also similarly fails to disclose how the retention mechanism performs the recited functions or interacts at all with the recited "fastening latch." RX-60C, Q302; RX-1824C, Q136. As such, the term and claim 21 are indefinite.

Resps. Br. at 35-37.

The Staff argues, in part:

The parties dispute the meaning of the term "retention member" as it appears in claim 21 of the '393 patent. This term was construed in Inv. No. 337-TA-1111 with respect to claim 16 of the '498 patent as a means-plus-function term. *See Certain Portable Gaming Console Systems with Attachable Handheld Controllers and Components Thereof I*, Inv. No. 337-TA-1111, Comm'n Op. at 27-43 (Oct. 16, 2019). However, the recited function in claim 21 of the '393 patent slightly differs from that of claim 16 of the '498 patent.

Gamevice contends that the term "retention member" connotes definite structure and should be given its plain and ordinary meaning. *See* Compl. P.H. Br. at 28-31. Conversely, Nintendo argues that the term is not the name of a structure known in the art, and thus the term should be construed under 35 U.S.C. § 112(f) as a means-plus-function limitation, as it was in the 1111 investigation. *See* Resps. P.H. Br. at 35-38. As Nintendo notes, the claim only recites what the "retention member" does – *i.e.*, interacts with the fastening latch – not what it is. The Staff agrees with Nintendo that the term "retention member" should be construed under 35 U.S.C. § 112(f) as a means-plus-function term.

Nintendo and the Staff substantially agree as to the recited function of the claimed "retention member." The Staff originally identified certain structures that performed that function. *See* JX-0014 (Joint Claim Construction Statement). However, the Staff is persuaded by Nintendo that the structures originally identified by the Staff do not correspond to this claimed function. As discussed by Dr. Stern, there is no description in the specification of a retention member interacting with a fastening latch to restrain the control modules as required by the claim. *See* RX-0060C (Stern WS) at Q/A 61-73. Thus, the specification of the '393 patent fails to disclose structure that corresponds to the recited function of "interacting with the fastening latch, the interaction of the fastening latch with the retention member restrains the structural bridge to a control module of the pair of control modules, and the pair of control modules to the computing device." *Id.* Accordingly, the Staff submits that claim 21 is indefinite.

Staff Br. at 31-32.

For reference, claim 21 follows:

> **21**. The apparatus of claim 16, in which the computing device having a length greater than its width, and wherein the first means for attaching the input device to a computing device comprising:
>
> the input device in electronic communication with the central processing unit of the computing device, the input device providing a pair of control modules a first control module of a pair of control modules, and a second control module of the pair of control modules, at least one of the first and the second control modules further comprising a fastening latch;
>
> a structural bridge disposed between said first and second control module, said structural bridge comprising a first side, said first side of said structural bridge in contact adjacency with said first control module, said structural bridge further comprising a second side, said second side of said structural bridge in contact adjacency with said second control module***, said structural bridge still further comprising a retention member, the retention member interacts with the fastening latch, the interaction of the fastening latch with the retention member restrains the structural bridge to a control module of the pair of control modules, and the pair of control modules to the computing device.***

JX-0001 ('393 patent) at col. 21, ln. 42 – col. 22, ln. 14 (emphasis added). The relevant portion of the specification follows:

> FIG. 14 further shows that the pair of control modules 252 provide a confinement boss 262, and the confinement boss 262 provides a fastening detent 264. The fastening detent 264 interacts with a ***retention member 266***, to secure the structural bridge 258, to the pair of control modules 252. In a preferred embodiment, the ***retention member 266*** is responsive to a catch 268, which preferably is a spring activated catch 268, and the ***retention member 268*** is preferably a spring loaded ***retention member 268***. Still further, FIG. 14 shows that in a preferred embodiment, the structural bridge 258 provides a communication link 270, which passing signals between the pair of control modules 252.

Id. at col. 8, lns. 38-49 (emphasis added). Figure 14 is reproduced below:

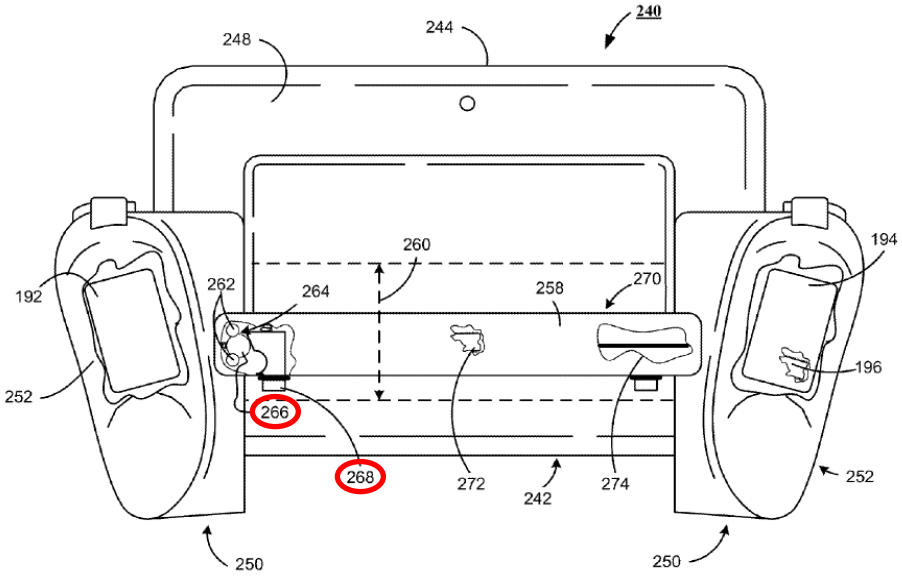


FIG. 14

Id., Figure 14 (annotations added).

For the reasons discussed below, the administrative law judge has determined that the term "retention member" is subject to § 112(f), that the relevant function is "interacting with the fastening latch, the interaction of the fastening latch with the retention member restraining the structural bridge to a control module of the pair of control modules, and the pair of control modules to the computing device," and that the corresponding structure is "a cylindrical post or column, including the recesses, depicted in Figure 14, at the interface between the confinement boss and the retention member."

i. Whether § 112(f) Applies

As a threshold issue, the administrative law judge must determine whether § 112(f) applies to the disputed term. *See Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1347-48 (Fed. Cir. 2015). The Federal Circuit has explained:

> In making the assessment of whether the limitation in question is a means-plus-function term subject to the strictures of § 112, para. 6, our cases have emphasized that the essential inquiry is not merely the presence or

> absence of the word "means" but whether the words of the claim are understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure.

Id. at 1348; *see also* The Manual of Patent Examining Procedure § 2181 (Ninth Edition, Revision 08.2017, Last Revised January 2018) ("To determine whether a word, term, or phrase coupled with a function denotes structure, examiners should check whether: (1) the specification provides a description sufficient to inform one of ordinary skill in the art that the term denotes structure; (2) general and subject matter specific dictionaries provide evidence that the term has achieved recognition as a noun denoting structure; and (3) the prior art provides evidence that the term has an art-recognized structure to perform the claimed function.").

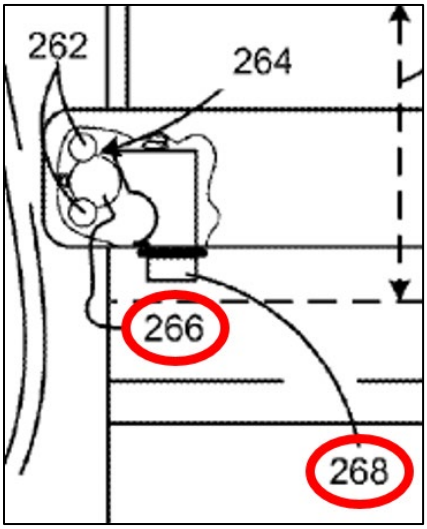
Here, the term "retention member" is functional because a person of ordinary skill in the art would not understand the term to have a sufficiently definite meaning as the name for a structure. *See* RX-0060C (Stern DWS) at Q/A 290.

With regard to the claims, the term "retention member" appears only in claim 21 of the '393 patent. *See, e.g.*, JX-0001 ('393 patent) at claim 21. The phrases following the "retention member" recite actions: the member must "interact" with other components and thereby "restrain" different components. This indicates that the "retention member" would not be understood as a structure. Further, claim 21 and all of the other claims in the patent do not impose any structural attributions to the retention member. The claim language does not limit the shape. Thus, the claims do not convey structure.

The specification (*see* JX-0001 ('393 patent) at col. 8, lns. 38-49) also fails to provide a sufficient description of structure. In particular, the specification describes what the retention member does, rather than describing the retention member's physical attributes. For example, the specification states that the retention member "interacts" with the fastening detent and "is

responsive to a catch." While the specification references a "spring loaded retention member 268," it is not clear where the spring is located and how it works, and how a device having two retention members (266 and 268) is arranged.[16]

Figure 14 also does not sufficiently convey structure. An excerpt of Figure 14 that focuses on elements 266 and 268 follows:



Id., Figure 14 (annotations added). As shown above, retention member 266 is represented by a two-dimension circle, and element 268 (whether it is a catch or a retention member) is represented either by a two-dimensional rectangle or a polygon that includes a complementary circular recess. These basic shapes fail sufficiently to convey structure, particularly where the specification teaches that the "***detailed description is illustrative only, and changes may be made in detail, especially in matters of structure and arrangements of parts*** within the principles of the present invention to the full extent indicated by the broad general meaning of the terms in which the appended claims are expressed." *See id.* at col. 17, lns. 43-48 (emphasis added).

[16] In any event, the claim is not limited to the "preferred embodiment."

The parties have not identified any portions of the prosecution history that apply to the term "retention member."[17] The prosecution history does not elucidate the meaning of the disputed term.

Nintendo's Notice of Supplemental Authority informs the administrative law judge that the Federal Circuit has affirmed the Commission's opinion in Inv. No. 337-1111. *See* Notice of Supplemental Authority at 1 (EDIS Doc. ID No. 742331) (May 13, 2021) (citing *Gamevice, Inc. v. Int'l Trade Comm'n*, Case No. 20-1264 (May 12, 2021) (*per curiam*)). The administrative law judge has reviewed the evidence and determined that it supports Nintendo's arguments that the term is functional. The evidence, however, is not sufficient to show that the term "retention member" is indefinite.

ii. Identification of Structure and Function

In *Williamson*, the Federal Circuit explained:

> Construing a means-plus-function claim term is a two-step process. The court must first identify the claimed function. *Noah Sys., Inc. v. Intuit Inc.*, 675 F.3d 1302, 1311 (Fed. Cir. 2012). Then, the court must determine what structure, if any, disclosed in the specification corresponds to the claimed function. Where there are multiple claimed functions, as we have here, the patentee must disclose adequate corresponding structure to perform all of the claimed functions. *Id.* at 1318-19. If the patentee fails to disclose adequate corresponding structure, the claim is indefinite. *Id.* at 1311-12.

792 F.3d 1339 at 1351-52.

Here, the relevant function is "interacting with the fastening latch, the interaction of the fastening latch with the retention member restraining the structural bridge to a control module of the pair of control modules, and the pair of control modules to the computing device."

[17] The parties have not identified any prior art that would help interpret the term.

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An examination of the specification shows that it describes and illustrates the mechanisms that together act to "restrain[] the structural bridge to a control module of the pair of control modules," as the claim requires. Specifically, Figure 14 shows that the pair of control modules "provide a confinement boss 262, and the confinement boss 262 provides a fastening detent 264. The fastening detent 264 interacts with a retention member 266, to secure the structural bridge 258, to the pair of control modules 252." JX-0001 ('393 patent) at col. 8, lns. 39-42 and Fig. 14. The '393 patent describes that the "retention member 266" is responsive to a "catch 268," and that the "retention member" and the catch are preferably spring-loaded and spring-activated, respectively. *See id.* at col. 8, lns. 43-46. Figure 14 illustrates structures capable of performing the claimed function.

Figure 14 illustrates, as explained in the specification, that the spring-activated catch 268 holds the spring-loaded retention member 266 in place against the confinement boss 262 and the fastening detent 264. In this position, retention member 266 is held in place such that fastening detent 264 interacts with the indentations in retention member 266 to restrain the structural bridge to the control module. Retention member 266 can be released by pushing catch 268 upwards so that the retention member fits into the catch's semi-circular cutout. As retention member 266 moves into this cut-out, it is released from its interaction with fastening detent 264 and thereby releases the control module from the structural bridge. See *id.*at col. 8, lns. 38-46.

The structure for performing the function of interacting with the fastening detent to restrain the structural bridge to a control module is the recess or opening of "retention member" 266 that captures the fastening detent 264. This recess or opening is depicted in Figure 14 at the interface where the confinement boss 262 meets the retention member 266. These indentations can be identified as part of the retention member that actually interacts with the fastening detent

to perform the claimed function. Based on the disclosure and Figure 14, the administrative law judge finds that the corresponding structure for the limitation "retention member" is a cylindrical post or column, including the recesses, depicted in Figure 14, at the interface between the confinement boss and the retention member.

* * *

Accordingly, the administrative law judge has determined that (1) the term "retention member" is subject to § 112(f); (2) the relevant function is "interacting with the fastening latch, the interaction of the fastening latch with the retention member restraining the structural bridge to a control module of the pair of control modules, and the pair of control modules to the computing device"; and (3) the corresponding structure is "a cylindrical post or column, including the recesses, depicted in Figure 14, at the interface between the confinement boss and the retention member."

g. "passageway" (claims 1 and 17)

Gamevice's Proposed Construction	Nintendo's Proposed Construction	The Staff's Proposed Construction
a space that accommodates a communication wire	a space that holds a communication wire	a space that accommodates a communication wire

See JX-0014 at 7.

The claim term "passageway" appears in independent claim 1 and dependent claim 17 of the '393 patent. JX-0001 ('393 patent) at col. 17, ln. 53 – col. 18, ln. 21, col. 20, lns. 19-56.

Gamevice argues, in part:

> In the 1111 Investigation, Gamevice and Nintendo disputed the construction of "passageway." There, the ALJ adopted his own plain meaning—"a space that accommodates a communication wire"—which as Gamevice and OUII now propose. *See* JX-0015 at 59-65. This term in the '393 patent is presumed to carry the same meaning. *See Omega*, 334 F.3d at 1334; CX-0001C, Singhose WS Q/A

157-158. Nintendo, on the other hand, incorrectly contends that the passageway *holds* the wire. But, consistent with ordinary artisans' common understanding that empty spaces do not hold things but accommodate them, the specification's discussion of examples of "passageway" show that they accommodate rather than hold a communication wire. *See* CX-0001C at Q/A 159-162; CDX-0001C at 18; JX-0001 at Figs. 14 (signal pathway 274), 16 (wired connection 314), 17 (conduit 328), 35 (signal pathway 523), 8:50-54, 9:4-7, 9:29-31, 15:26-30, 15:47-51. Further, dictionaries define "passageway" as "a way that *allows* passage," CX-0096, Merriam-Webster's Collegiate Dictionary at 4 (emphasis added). Dictionaries also define a conduit as "a pipe or passage through which water, gas, electric wires, etc. *pass*," CX-0098, Excerpts of dictionaries at 8 (emphasis added), or "a tube, pipe, or protected trough for electric wires," *id. at* 5. These definitions show that the claimed "passageway" (including, *e.g.*, conduit 328) accommodates a communication wire. *See* JX- 0001 at Figs. 17-18, 9:67-10:7; CX-0001C at Q/A 163-168. But neither the '393 patent nor the dictionaries suggest that the "passageway" holds the communication wire. *See* CX-0001C at Q/A 165-167.

Although OUII agrees with Gamevice on the construction, in applying the term in the infringement context, it appears that OUII is incorrectly arguing that the claimed "passageway" must be internal to the "structural bridge," which improperly imports limitations from the specification's embodiments (*e.g.*, conduit 328) into the claim. *See Phillips*, 415 F.3d at 1323. But on cross-examination, Dr. Stern agreed that this term is not limited to the embodiments in the specification, and that there are no limitations on the space's shape or size. *See* Stern Tr. 567:5-572:5. Moreover, the specification teaches that signal pathway 274, which the ALJ found in the 1111 Investigation was an example of a "passageway", may be "coupled externally to the structural bridge 276, as shown by FIG. 15," JX-0001 at 9:11-15, showing that the passageway need not be internal to the "structural bridge." This is consistent with laypersons' common understanding, for example, that a freeway under the open skies is just as much a passageway for cars as one inside a tunnel.

Compl. Br. at 21-22.

Nintendo argues, in part:

Claims 1 and 17 recite a "passageway," which Nintendo proposes means "a space that *holds* a communication wire." JX-14.8. Gamevice and Staff have adopted the ALJ's construction of "passageway" from the 1111 Investigation, "a space that *accommodates* a communication wire." JX-14.8. The difference is that under Gamevice's proposed interpretation of that construction, any space that, *in theory*, could have a "communication wire" is a "passageway," even if there is never any "communication wire" that passes through that space in the accused product. But that understanding of the construction is inconsistent with the

specification, with the ALJ's prior construction, and with common sense. RX-60C, Q344–60; RX-1824C, Q82–88.

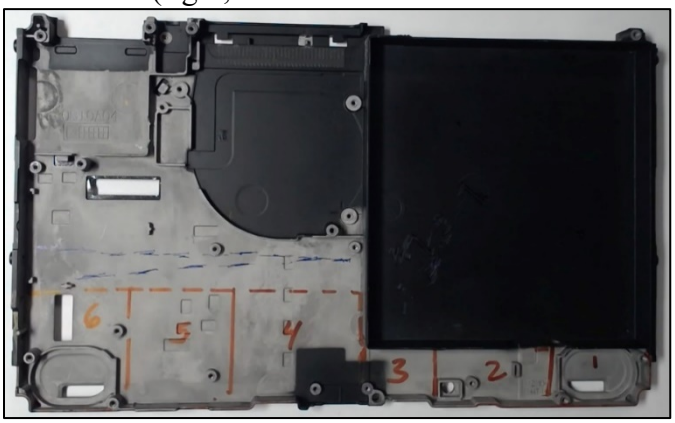
The term "passageway" is not a term of art, RX-60C, Q349, and it does not appear in the specification, *id*., Q350, but a POSA would understand "conduit 328" to be an example of such a structure, Stern Tr. 570:6–571:4; RX-60C, Q344–48, 351–52, 360; RX-1824C, Q82, 87, 468, 499, 509; RX-1824C.A, Q499. This conduit is depicted as holding a communication link 312 / wired connection 314 that passes through and connects the pair of confinement structures 316 on opposite sides of the conduit, JX-1, Fig. 17, 10:1; RX-60C, Q351–52; RX-1824C, Q89, 499; RX-1824C.A, Q499; CX-1C, Q165 (testifying that a conduit is defined as a "pipe or passage through which … electric wires … *pass*"), which is consistent with a POSA's understanding that the recited "passageway" *actually* holds (*i.e.*, physically constrains or bounds) a communication wire that passes through it. Stern Tr. 569:18–570:1, 571:10–17; RX-60C, Q351–52, 360; RX-1824C, Q82, 87, 468, 499, 509; RX-1824C.A, Q499.

Under Gamevice's view, "passageway" means *any* space—of *any* size and configuration—so long as a wire could—theoretically—run through it: "empty spaces … accommodate [things]" and "*allow*[]" passage, CPBr.20 (citation omitted, emphasis in original); CX-1C, Q160. But that reads the limitation so broadly as to read it entirely out of the claim, which is both overbroad and inconsistent with the claim language and specification. Stern Tr. 571:10–17; RX-60C, Q353–60; RX-1824C, Q82–88. As a result, Nintendo's proposed construction clarifies that "passageway" means a space that *actually* holds a wire, *id.*; Stern Tr. 569:18–570:1. This is consistent with the reasoning in the 1111 Investigation, recognizing that the construction must:

> address the role of wired communication between other components, which Gamevice's counsel and expert have indicated the term should include. See Tr. (Mathews) 79 ("So [the passageway] does not need to accommodate people or dogs or cars, but wired communication."), 91 (stating that the passageway cannot be wireless); Stubben Decl., ¶ 62 ("wired connections run through 'passageways' in the structural bridge for the promotion of electronic communication.").

JX-15.63–64; RX-60C, Q351–52; RX-1824C, Q88.

Furthermore, as Staff pointed out in its Prehearing Brief, the specification describes structural bridges with internal passageways and structural bridges lacking a passageway with communication wires routed externally to the structural bridge. SPBr.45. Gamevice's understanding of passageway—where a communication wire need not actually be accommodated in the passageway—improperly removes the specification's distinction between the disclosed structural bridges with, and structural bridges without, internal "passageways."

> That Gamevice's reading of the ALJ's construction does not require a communication wire is confirmed by RDX-215 (right, RPX-40 with Gamevice's shifting identified "passageways" drawn onto it (red and blue dotted lines). As Dr. Stern testified at the hearing, the areas marked as 4 and 5 do not contain any of what Gamevice says are the communication wires and such spaces would be "choked off" by other components in the assembled product such that no wires could run through those areas. Stern Tr. 633:11–634:4, 631:18–633:10. Even though areas 4 and 5 do not, and in fact cannot, have a communication wire, they are nonetheless a passageway (or at least some material part of a passageway) under Gamevice's interpretation. But without a communication wire, there is no distinction between a passageway and any other space, indistinguishable from all of the rest of the upper frame. Such an understanding of the term is inconsistent with the teachings of the patent and should be rejected.
>
> 
>

Resps. Br. at 12-14.

The Staff argues, in part:

> The term "passageway" was construed in Inv. No. 1111 to mean "a space that accommodates a communication wire." *See* Compl. P.H. Br. at 20-21. Gamevice and the Staff agree with this construction. *See id.* Nintendo, however, proposes a slight variation, replacing the word "accommodates" with the word "holds." *See* Resps. P.H. Br. at 26-27. The parties dispute whether the claimed "passageway" must actually contain a communication wire. *See Id.* In the Staff's view, whether a particular space is accommodating a communication wire is an issue of infringement, not claim construction. A person skilled in the art would understand that there are spaces without communication wires that are passageways, and there are spaces with wires that are not passageways. The Staff thus disagrees with Nintendo's proposed construction.
>
> Accordingly, the Staff submits that the term "passageway" should be construed to mean "a space that accommodates a communication wire."

Staff Br. at 32-33.

It is determined that the claim term "passageway" means "a space that accommodates a communication wire." This construction is consistent with the intrinsic evidence, and the

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understanding of one of ordinary skill in the art. *See* CX-0001C (Singhose DWS) at Q/A 159-62; JX-0001 ('393 patent) at Figs. 14, 35, col. 8, lns. 50-54, col. 9, lns. 4-7, col. 9, lns. 29-31, col. 15, lns. 26-30, col. 15, lns. 47-51.

Claim 1 of the '393 patent requires that the structural bridge comprise "a passageway between the pair of confinement structures, the passageway promotes electrical communication between the communication link of a first confinement structure of the pair of confinement structures and the computing device, the passageway further promotes electrical communication between the communication link of a second confinement structure of the pair of confinement structures and the computing device." *Id.* at claim 1. Claim 17 recites similar language. *See id.* at claim 17. Thus, at a minimum, the claims indicate that the passageway must be associated with the structural bridge.

The specification does not use the word "passageway." However, signal pathway 274, wired connection 314, and conduit 328 are associated with the structural bridge, as the claims require.[18] For example, for signal pathway 274, the '393 patent's specification explains:

> In a preferred embodiment, when a flexible material is selected, and the signal pathway 274 is a wired pathway, the signal pathway 274 may be coupled externally to the structural bridge 276, as shown by FIG. 15.

Id. at col. 9, lns. 11-15.

[18] The specification's discussion of signal pathway 523 also indicates that the passageway accommodates a wire. JX-0001 ('393 patent) at col. 15, lns. 47-51 ("In an embodiment that utilizes the signal pathway 523, as the communication link 519, the signal pathway 523, may be in the form of a metallic conductor, a fiber optic conductor, a conductive polymer, or the conductive layer of a flex circuit.").

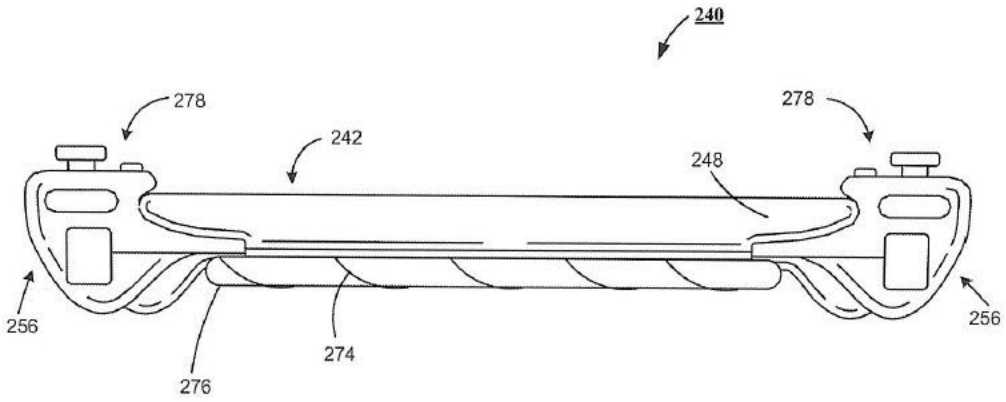


FIG. 15 of JX-0001 ('393 patent)

Figures 16-18 show that wired connection 314 is inside the structural bridge 322. Taken together, the specification and figures provide support for construing passageway to mean "a space that accommodates a communication wire."

h. "the structural bridge configured for adaptation to a computing device" (claim 8)

Gamevice's Proposed Construction	Nintendo's Proposed Construction	The Staff's Proposed Construction
the structural bridge configured to accommodate a length of a computing device	the structural bridge is adjustable to accommodate a length of a computing device	the structural bridge is adjustable to accommodate a length of a computing device

JX-0014 at 7.

The claim term "the structural bridge configured for adaptation to a computing device" appears in independent claim 8 of the '393 patent. JX-0001 ('393 patent) at col. 18, lns. 47-62.

Gamevice argues, in part:

> Gamevice contends that the phrase "configured for *adaptation*" in this claim term means only that the "structural bridge" is pre-designed or engineered (*i.e.*, "configured for") to accommodate the length of (*i.e.*, be "adapt[ed] to") a computing device. OUII and Nintendo, on the other hand, incorrectly contend that this phrase requires the "structural bridge" to be *adjustable* to accommodate computing devices of at least two different lengths. *See* CX-0001C at Q/A 169-170, 173. But the claim term clearly recites that the adaptation is to "a" (*i.e.*,

singular) computing device, JX-0001 at claim 8, which shows that the claim term is directed to accommodating a single computing device, not adjusting to two computing devices of different lengths. *See* CX-0001C, Singhose WS Q/A 186.

Further, dependent claim 9 shows that the "electronic game control modules" are adjustable, not the "structural bridge." It recites that one of the modules "comprises a tensioning mechanism . . . in which the tensioning mechanism comprises: . . . [a] biasing structure provid[ing] tension between the structural bridge and the second of the pair of electronic game control modules." JX-0001 at claim 9; JX-0003, Certificate of correction for the '393 patent. Rather than the "structural bridge," it is this "tensioning mechanism" of the electronic game control module including the "biasing structure" that provides adjustability when securing the "structural bridge" to the "electronic game control modules." *See* JX-0001 at Fig. 28 (biasing structure 460 in control module 404), 12:62-13:28; CX-0001C at Q/A 174-176, 185; Singhose Tr. at 368:10-371:9. Contrary to Nintendo's arguments, Gamevice's product specifications and domestic industry contentions are consistent with the understanding that the "structural bridge" is not required to be adjustable. *See* CX-0001C at Q/A 192.

Gamevice's proposed construction neither renders the phrase "configured for adaptation" meaningless or surplusage, nor reads out another limitation of claim 8, "the structural bridge accommodates the length of the computing device." The term "the structural bridge configured for adaptation to a computing device" shows that the structural bridge is *pre-designed* to accommodate the computing device, rather than adjustable *in situ* or in real time. *See* CX-0001C at Q/A 191. Taken in isolation, however, this term does not specify along what dimension(s) (e.g., length, width, and/or height) the structural bridge is pre-designed to accommodate the computing device. *See id. at* Q/A 190. But taken in context with the other term, "the structural bridge accommodates the length of the computing device," it is clear that the structural bridge is configured, *i.e*., pre-designed or engineered, to accommodate the *length* of the computing device. *See id*. By capturing these aspects, Gamevice's proposal gives effect to all claim terms. *See Info-Hold, Inc. v. Muzak LLC*, 783 F.3d 1365, 1373 (Fed. Cir. 2015).

Contrary to OUII's and Nintendo's proposal, the words "adaptation" and "adjustable" in the '393 patent should be given different meanings to "preserve the patent's internal coherence," *Markman v. Westview Instruments*, 517 U.S. 370, 390 (1996). The patent uses "adaptation" in a very different way than the words "adjustable" or "adjustment." *See* CX-0001C at Q/A 171-172. The patent uses "adjustable" or "adjustment" in the context of control module components that are moved between different positions. *See* JX-0001 at Fig. 21, 10:64-67 (sliding locking toggle 352 is "selectively adjustable" between open and closed/locked positions), Fig. 27, 12:4-13:17 ("adjustment structure 432" is activated in one of two directions using "adjustment feature 428"); CX-0001C at Q/A 177. By contrast, the '393 patent uses "adaptively" for accommodating a computing device along one of its dimensions. As an example, the patent states at Col. 11, ll. 31-34:

"The pair of control modules (408, 410) are preferably configured such that the pair of control modules (408, 410) *adaptively* and snugly *accommodate the width 414*, of the computing device 406." JX-0001 at 11:31-34. At this portion of the patent, there is no discussion of adjusting the width of the control modules (408, 410). *See id*. Similarly, the '393 patent uses "adaptively" when discussing that the structural bridge accommodates the length of a computing device, but there is no accompanying discussion of adjusting the length of the structural bridge 422. *See id. at* Abstract, 1:49-51 (summary of the invention), Fig. 26, 11:42-49, Fig. 27, 11:59-12:1, Fig. 36, 15:5-10; CX-0001C at Q/A 181-184; CDX-0001C at 37.

Further, the prosecution history of the '453 priority patent shows that the word "adaptation" does not refer to adjustability. There, the applicant relied on a different claim term, "sliding contact," to introduce the concept of adjustability of the "structural bridge" and distinguish a Ha *et al*. '890 prior art reference, *even though* the claims there also recited that the "structural bridge adapts to . . . the computing device." *See* RX-0229, '453 patent file history at 129-30; CX-0001C at Q/A 187.

Moreover, consistent with the intrinsic evidence, dictionaries define the word "adapt" to mean accommodating rather than adjusting. *See* CX-0086, The Free Dictionary at 1 (defining "adapt" as "[t]o make suitable to or fit for a specific use or situation."); CX-0083, Merriam-Webster Dictionary at 1 (defining "adapted" as "suited by nature, character, or design to a particular use, purpose, or situation"); CX-0001C at Q/A 178-180, 188.

Compl. Br. at 22-25.

Nintendo argues, in part:

Nintendo and Staff agree that the term in claim 8, "the structural bridge configured for adaptation to a computing device," means "the structural bridge is adjustable to accommodate a length of a computing device." JX-14.8. Gamevice, by contrast, seeks to replace "configured for adaptation" with a limitation already in the claim to mean "the structural bridge configured to accommodate a length of a computing device." RX-60C, Q361–86; RX-1824C, Q89–101.

* * *

The extrinsic dictionary definitions further support this point. "Adapt" is defined as "to make fit (as for a new use) often by modification," RX-1409; RX-60C, Q372–75, and even in Gamevice's preferred Free Dictionary, "adapt" is defined as "fit, adjust, alter, or modify," "to adjust (someone or something, esp oneself) to different conditions, a new environment, etc.," "to fit, change, or modify to suit a new or different purpose," and "to make suitable to requirements or conditions, adjust or modify fittingly," CX-86; RX-1824C, Q100—*i.e.*, to change/adjust.

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> Gamevice's primary argument against Nintendo and Staff's proposed construction is based on a misreading of the construction itself. Gamevice argues that the specification only discloses other components (not the structural bridge) that can be used to adjust the input device. CPBr.21–22. But Nintendo and Staff's proposed construction does not require that the structural bridge *itself* be responsible for causing the adjustment; it simply needs to be "*adjustable*," even if that adjustment is caused by other components (*e.g.*, by the component specifically identified as the *adjustment* structure). RX-1824C, Q93–99; RX-60C, Q367–71. As Dr. Singhose testified, Figure 29 shows that: By sliding a slide mechanism, the distance between the two modules—which comprises the usable length of the structural bridge—is adjusted to fit different length computing devices. Tr. 308:1–310:10. This is what Nintendo and Staff's proposed construction covers.
>
> * * *
>
> The prosecution history further undermines Gamevice's proposed construction. During prosecution of the '453 patent (alleged priority patent for claim 8), Gamevice distinguished a prior art reference by arguing that it "shows, teaches, and suggests a *fixed structural bridge*," RX-229.129–30, unlike the recited adjustable structural bridge, which was claimed using materially similar language to claim 8 (compare "*configured* such that the structural bridge *adapts to*," RX-229.129, with "structural bridge *configured for adaptation*," JX-1, claim 8). RX-1824C, Q101. "[C]laims may not be construed one way in order to obtain their allowance and in a different way against accused infringers." *Sunovion Pharms., Inc. v. Teva Pharms. USA, Inc.*, 731 F.3d 1271, 1277 (Fed. Cir. 2013) (alteration in original and citation omitted).

Resps. Br. at 16-21 (footnotes omitted).

The Staff argues, in part:

> The parties dispute the meaning of the phrase "the structural bridge configured for adaptation to a computing device." The crux of this dispute is whether the structural bridge must be adjustable to be "configured for adaptation to a computing device." *See* Resps. P.H. Br. at 30-33; Compl. P.H. Br. at 21-24. Gamevice contends that it is enough for the structural bridge to be designed to fit a particular size of computing device. Compl. P.H. Br. at 21-24. But as Nintendo notes, the claim separately recites that "the structural bridge accommodates the length of the computing device." *See* Resps. P.H. Br. at 33. Gamevice's proposed construction would thus render the words "configured for adaptation to" superfluous. *See Power Mosfet Techs., L.L.C. v. Siemens AG*, 378 F.3d 1396, 1410 (Fed.Cir.2004) ("[I]nterpretations that render some portion of the claim language superfluous are disfavored."). Accordingly, Nintendo and the Staff propose a construction that gives meaning to all of the language of the claim.

> The ’393 patent discloses various embodiments of the claimed invention that are adjustable to accommodate devices of different lengths. *See, e.g.,* JX-0001 (’393 patent) at Fig. 31, col. 14:19-27. Accordingly, Nintendo’s and the Staff’s proposed constructions are consistent with the specification of the ’393 and afford meaning to the phrase “configured for adaptation.” “A claim construction that gives meaning to all the terms of the claim is preferred over one that does not do so." *Merck & Co. v. Teva Pharmaceuticals USA*, 395 F.3d 1364, 1372 (Fed. Cir. 2005). The Staff thus submits that the phrase “the structural bridge configured for adaptation to a computing device” be construed to mean “the structural bridge is adjustable to accommodate a length of a computing device.” *See* Resps. P.H. Br. at 30-33.

Staff Br. at 33-34.

It is determined that the meaning of the claim term “the structural bridge configured for adaptation to a computing device” is “the structural bridge is adjustable to accommodate a length of a computing device.”

Gamevice proposes construing this term to mean “the structural bridge configured to accommodate a length of a computing device.” However, Gamevice’s construction renders surrounding claim language superfluous. “[I]nterpretations that render some portion of the claim language superfluous are disfavored.” *Akzo Nobel Coatings, Inc. v. Dow Chem. Co.*, 811 F.3d 1334, 1340 (Fed. Cir. 2016) (citation omitted). The relevant portion of the claim is reproduced below:

> the structural bridge configured for adaptation to a computing device, the computing device having a length greater than its width, the structural bridge <u>accommodates the length of the computing device</u> . . .

JX-0001 (’393 patent) at col. 18, lns. 53-56 (emphasis added).

Moreover, the specification describes an embodiment where the structural bridge “adaptively accommodates” computing devices of different lengths by being adjusted. *Id.* at col. 11, ln. 58 – col. 12, ln. 3, col. 14, lns. 19-27, FIGS. 30-31; RX-0060C (Stern DWS) at Q/A 367-71, 375. The specification teaches that the structural bridge can be adjusted by activating

"adjustment structure 432" in a first direction 438, such that "the structural bridge 422 [is placed] in a first position 436" to accommodate the length of computing device 418. JX-0001 ('393 patent) at col. 12, lns. 14-20. When the adjustment structure is activated in the second direction 442, the structural bridge is adjusted to accommodate the different length of computing device 406. *See id.* at col. 12, lns. 21-27; RX-0060C (Stern DWS) at Q/A 369-71. The administrative law judge thus finds that "the structural bridge configured for adaptation to a computing device" means "the structural bridge is adjustable to accommodate a length of a computing device."

VI. Infringement

A. Claim 1

The Nintendo Switch is accused of infringing independent claim 1 of the '393 patent.

1. A combination comprising:

The Nintendo Switch constitutes "a combination." See CX-0001C (Singhose DWS) Q/A 337-42. Nintendo does not contest that the Nintendo Switch satisfies this limitation. *See* Resps. Br. at 46-99.

2. a computing device;

The Nintendo Switch includes "a computing device." CX-0001C (Singhose DWS) Q/A 343; RX-1824C (Stern RWS) at Q/A 241.

Gamevice argues, in part:

> Under the correct interpretation of "computing device," *see* JX-0014 at 2, the Nintendo Switch includes a [[redacted] .] *See* CX-0001C at Q/A 343-347; CDX-0001C at 43; CX-0136C, [redacted] ;] CX-0137C, Exploded View Diagrams, at 1, 7-8. It also includes electronic equipment controlled by the CPU: components other than the CPU mounted on the CPU PCB assembly,[[redacted]]*See* CX-0001C at Q/A 345-351; CDX-0001C at 43-45; CX-0136C at 1, 8-11. The "computing device" also includes a back cover of the Nintendo Switch console.

See CX-0001C at Q/A 351.

Nintendo incorrectly limits this term to fully assembled, finished devices in arguing that the entire Nintendo Switch console must be the "computing device." *See* CX-0001C at Q/A 352-354. Nintendo also argues that the torn-down version of the Switch console that Dr. Singhose examined does not function properly because components like the upper frame assembly and the plastic cover of the display screen are required for the full functionality of the Nintendo Switch. Nintendo apparently confuses Dr. Singhose's tear-down analysis of the Nintendo Switch console as meaning that Gamevice is accusing the torn-down version of the product. *See* CX-0001C at Q/A 355-358. But Gamevice is accusing the fully assembled Nintendo Switch as imported and sold. *See id*. Finally, contrary to Nintendo's argument, the PCB assembly can be set into the structural bridge and still be part of the "computing device." *See id. at* Q/A 358.

Compl. Br. at 42-43.

Nintendo argues, in part:

To a person of skill in the art, the Nintendo Switch console, with all of its parts and functioning as it was designed to function, would be understood to be a "computing device" within the meaning of the claims. Stern Tr. 539:23–540:4; RX-1824C, Q241. But if the console is the "computing device" recited in the claims, then the other separately recited limitations—for instance, "structural bridge" and "confinement structures"—cannot be met. Gamevice has never argued to the contrary because under Federal Circuit authority, the "clear implication" is that these separately recited elements are "distinct components of the patented invention." *Becton, Dickinson & Co. v. Tyco Healthcare Grp., LP*, 616 F.3d 1249, 1254–55 (Fed. Cir. 2010) (internal quotation marks and alteration in original omitted); *see also HTC Corp. v. Cellular Commc'ns Equip., LLC*, 701 F. App'x 978, 982 (Fed. Cir. 2017) (non-precedential). That the "computing device" is recited separately from other elements, "strongly implies that the named entities are not one and the same structure." *HTC*, 701 F. App'x at 982. Thus, Gamevice tries to carve up the console by dismantling it into its components and then drawing arbitrary lines around some parts it calls the "computing device," and other parts of the console it calls *not* the "computing device." This approach bears no relationship to the patent's disclosure or how a person of skill in the art would approach the claim term. Stern Tr. 540:5–8; RX-1824C, Q251–84.

The claim term is "computing *device*," not "*parts* of a computing device." And the parties' agreed-to construction, "electronic equipment controlled by a CPU," is consistent with that, requiring "equipment," not "parts of equipment." RX-1824C, Q270–76. The specification nowhere suggests that random parts of a "computing device" can, by themselves, be a "computing device." *Id.*, Q277. The Summary of the Invention makes that clear: " … a computing device, the computing device providing a plurality of sides, each of the plurality of sides are

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Ex. 1018, IPR2023-00643

disposed between an electronic display screen of the computing device and a back of the computing device…." JX-1, 1:30–36. The specification says that the "computing device 102 may take the form of a tablet computer, smart phone, notebook computer, or other portable computing device." *Id.*, 4:42–45. And each of the figures in which a "computing device" is shown, shows either a smartphone or a tablet. *Id.*, Figs. 1–4, 8–10, 12–16, 25, 29, 30, 32, 32–34, 36, 39, 40–42. The specification does not include a single circuit diagram or other figure showing that parts of a computing device—like a printed circuit board—are the recited "computing device." The claim term itself—"computing *device*"—requires the electronic equipment controlled by a CPU not simply be a smattering of individual parts of that electronic equipment: rather, the electronic equipment itself is the "*device*." RX-1824C, Q269–70.



But Gamevice accuses an assortment of parts as the "computing device." So, for instance, RDX-201 (right, RPX-39) shows the random parts of the console that Dr. Singhose says are the "computing device" for claims 1–4 and 7. Tr. 202:3–10. But those parts are just that—*parts* of a "computing device"—not a "computing device" by themselves. These parts do not meet the parties' agreed construction—none are "equipment" and none are "controlled" by a CPU, at least not until the parts are assembled into a device—the functioning console. RX-1824C, Q276, 278–79. Indeed, some parts that Dr. Singhose says are the "computing device," such as the lower housing (the inert plastic back cover shown above), are not electronic *or* equipment *or* controlled by a CPU; *id.*, Q276, 279; it is just a piece of plastic unconnected to anything electronic.

The absurdity of subdividing a functional console into parts that are, and parts that are not, a supposed "computing device," was evident throughout Dr. Singhose's testimony. For instance, Dr. Singhose testified that the upper frame is not part of the "computing device," while the plastic lower housing is. Tr. 205:5–207:5, 245:23–246:8. Yet, the main circuit board, which Dr. Singhose says *is* part of the "computing device," is connected to the upper frame that Dr. Singhose says is *not* part of the "computing device," while the main circuit board is *not* connected to the plastic housing that Dr. Singhose says *is* part of the "computing device." *Id.*; RX-1824C, Q294, 383. Moreover, the upper frame that Dr. Singhose says is not part of the "computing device" is necessary for the device to function, RX-1824C, Q207–14, 278; Stern Tr. 640:23–643:7 (describing an experiment that showed the Nintendo Switch console will not function without the upper frame assembly), while the inert plastic lower housing is not even connected to the main circuit board,

RX-1824C, Q276. Similarly, Dr. Singhose says the antennas are part of the "computing device," while the rails are not—even though both are connected to the main circuit board in a similar fashion. Tr. 208:20–209:10. And, Dr. Singhose says that the power button on the console is not part of the "computing device," while the antennas are, even though a user cannot turn the console on without the power button. *Id.*, 207:8–18. Dr. Singhose did not, because he could not, justify any of these disparate conclusions from the perspective of a POSA because no POSA would consider Dr. Singhose's arbitrary assortment of parts a "computing device" as recited in the claims. RX-1824C, Q274–79.

Dr. Singhose's position was so contrary to how a skilled artisan would approach the analysis that he could not even keep his own testimony straight. On the first day, Dr. Singhose was adamant that, for claim 17, the "computing device" did not include either the touch panel or the upper housing of the console (another inert plastic piece), even when presented with his own demonstrative that showed that was his position. *Id.*, 210:23–215:8 ("Q: So neither of these are part of the computing device, that's your testimony, right? A: Yes. Q: And you're sticking to it? A: Yes."). The next morning, Dr. Singhose didn't "stick[] to it," reversing course *twice*; once to change his testimony regarding claim 16, and a second time to change his testimony for claim 17 to say that *both* components were part of the "computing device" for claim 17. *Id.*, 371:10–375:6, 390:23–396:23. But Dr. Singhose had no explanation for why a POSA would or would not include these components as part of the "computing device" beyond the oft-repeated fact that "we [Gamevice] have to use" them to argue infringement. *Id.*, 396:20–23, 209:23–210:13 (for claim 6, including the screen because "claim 6 requires a screen," but not including the touch panel because "claim 6 doesn't require a touch panel").

Gamevice offered two arguments at the hearing trying to justify its position that an arbitrary collection of unconnected parts can be a "computing device," but neither survive review. Gamevice's first argument was that Figure 6 shows that disconnected, arbitrary parts can be a "computing device." *Id.*, 261:20–262:19 (referring to the Figure 6 as showing "a hodgepodge [that the inventors are] calling the computing device"), 371:19–372:3 (referring to the "collection of components" as "the yard sale embodiment" of the "computing device"). But this argument is both waived and incorrect. It is waived because Dr. Singhose never testified in his direct testimony that Figure 6 showed an embodiment of a "computing device" comprising just a CPU and a screen, and Gamevice never made that argument in its Prehearing Brief. CPBr.39–41; CX-1C, Q343–58. But more importantly, it is wrong because, as Dr. Stern confirmed, Figure 6 is a functional block diagram that identifies functional characteristics of systems and relationships within that system, not the minimal requirements for a computing device. Tr. 622:2–9, 628:19–630:2. In fact, only two of the items shown in Figure 6 are physical components at all—the CPU and the screen—the rest are relationships, functions, and software. *Id.*, 629:12–20. Further confirming this point, Figure 6 depicts input device 114 (separate from the computing device) with only some switches and CPU, but

nobody would confuse those pieces as sufficient to constitute that "[g]ame [c]ontroller with [s]tructural [b]ridge," JX-1, (54), and the same is true with the computing device, which is only depicted and described as a standard device, not as just a CPU and screen. Simply put, Dr. Singhose's off-the-cuff reading of Figure 6 is waived and wrong.

Gamevice's second argument was to suggest that claim differentiation based on claims 3 and 6 broaden the meaning of "computing device" to devices that do not have a back or a screen. *Id.*, 559:10–561:15. Gamevice's claim differentiation argument fails for, at least, three reasons.

First, claim differentiation is a matter of claim construction, *see Regents of Univ. of Cal. v. Dakocytomation Cal., Inc.*, 517 F.3d 1364, 1375 (Fed. Cir. 2008), and—as Gamevice has pointed out numerous times—the parties have agreed on the construction of "computing device" as "electronic equipment controlled by a CPU." JX-14.2. If Gamevice believed that "computing device" should be broadened to include a disassociated collection of oddball parts based on claim differentiation, as Gamevice now seems to suggest, it should have proposed a construction to that effect. Gamevice cannot now try to backdoor such a construction.

Second, the claim language does not support Gamevice's differentiation argument. Every disclosure and depiction of the computing device shows a device, not pieces like a CPU and screen. RX-1824C, Q35; *Regents*, 517 F.3d at 1375 ("[T]he doctrine of claim differentiation is not a hard and fast rule and will be overcome by a contrary construction dictated by the written description …." (internal quotation marks omitted)). As to claim 3, while that claim recites a "back," Gamevice contends that the accused "computing device" includes a back (the inert plastic lower housing) for all of the claims. CX-1C, Q351, 552–53, 707; Singhose Tr. 205:5–11. Thus, claim 3—and its supposed differentiating effect—is beside the point. As for claim 6 and as Dr. Stern explained during the hearing, "the majority of [claim 6] appears to be directed to how signals are passed … ," Tr. 561:6–15, including a number of limitations that have nothing to do with the screen. Thus, the claim does not support a claim differentiation argument. RX-1824C, Q34 (Dr. Stern testifying that "[t]o a person of skill in the art, these limitations suggest that claim 6 is not necessarily focused on defining elements of the 'computing device,' but rather, the 'game control modules.'"); *Kudlacek v. DBC, INC.*, 25 F. App'x 837, 843 (Fed. Cir. 2001) (non-precedential) (noting that claim differentiation would not change the construction of a term were the dependent claim "also contains other limitations that differentiate it from" the independent claim).

And third, to the extent dependent claims 3 and 6 broaden "computing device" beyond the agreed construction, such that a "back" (claim 3) or a "screen" (claim 6) are unnecessary for a "computing device," then Gamevice would not be entitled to a priority date before the actual filing date. RX-1824C, Q33–39; *see D*

Three Enters., LLC v. SunModo Corp., 890 F.3d 1042, 1050 (Fed. Cir. 2018) ("*D Three II*") ("[The] patentee bears the burden of establishing that its claimed invention is entitled to an earlier priority date …." (citation omitted)). The earlier patent applications (including the '119 and '453 patents) have the same relevant portions of the specification as the '393 patent, but whereas the '393 patent has claims 3 and 6, the earlier applications do not; they only disclose and/or expressly recite "computing device[s]" with a "back" and a "screen," RX-219, claim 1; RX-228, claim 1, thereby failing to disclose possession of "computing devices" that somehow lack a back or a screen. RX-1824C, Q33–39; *PowerOasis Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1311 (Fed. Cir. 2008) ("[T]he construction … that must be supported by the written description of the Original Application is the construction given by the district court as used in the [asserted] patents."). Accepting Gamevice's invitation to use claims 3 and 6 to broaden the construction of "computing device," therefore, necessarily invalidates the claims because they would not be entitled to an earlier priority date and Gamevice argues that the Nintendo Switch meets each claim limitation but that product was indisputably on sale in the United States before the actual filing date of the '393 patent. *See* Section 18.1.

In summary, Gamevice has identified only *parts* of a device, and has failed to prove that random disconnected parts meet the "computing device" limitation. Claims 1–4, 6–8, and 17–18, thus, are not infringed.

Resps. Br. at 47-53.

The Staff argues, in part:

The parties agree that the term "computing device" means "electronic equipment controlled by a CPU." JX-0014 (Joint Claim Construction Chart). However, a dispute remains as to how that construction should be applied. *See* Compl. P.H. Br. at 39-41; CX-0001C (Singhose WS) at Q/A 343-358; Resps. P.H. Br. at 62-67; RX-1824C (Stern RWS) at Q/A 244-284. Nintendo does not dispute that the "computing device" limitation is met by the Nintendo Switch Console device. *See* RX-1824C (Stern RWS) at Q/A 251 ("[A] person of skill in the art applying the agreed construction would think that the fully functional and intact Nintendo Switch is a 'computing device' within the meaning of that construction."). This is consistent with the agreed-upon construction, as well as the specification of the '393 patent, which states that "the computing device 102 may take the form of a tablet, smart phone, notebook computer, or other portable computing device[.]" JX-0001 ('393 patent) at 4:43-45.

Gamevice, however, contends that the "computing device" limitation is not met by the Nintendo Switch Console device, but is instead met by components within the device. *See* Compl. P.H. Br. at 39-40. Specifically, Gamevice contends that the "computing device" limitation is satisfied by[[redacted]

[redacted] Compl. P.H. Br. at 40. This, however, is an eclectic collection of components – not a device. One skilled in the art would understand that in the context of the '393 patent, the "computing device" would be satisfied by the Nintendo Switch Console as a whole. *See* RX-1824C (Stern RWS) at Q/A 251. One skilled in the art would not understand Gamevice's identified components of the Nintendo Switch Console device to themselves be a device. *See id.*

In sum, the "computing device" limitation is met by the Nintendo Switch Console device. However, the components identified by Gamevice do not satisfy the "computing device" limitations of the claims.

Staff Br. at 37-38.

As a preliminary matter, the parties' agreed-upon construction for "computing device" is "electronic equipment controlled by a CPU." JX-0014 at 1. This construction is consistent with the claims, and is supported by the specification. For example, Fig. 6 shows a computing device 102 that includes a CPU 156. JX-0001 ('393 patent) at Fig. 6. The specification explains that "computing device 102 preferably includes at least a CPU 156, interacting with the electronic display screen 110, the video game 130, a device driver 158, which facilitates the interaction between the computing device 102 and the input device 114 . . . ." *Id.* at col. 6, lns. 14-18.

Nintendo does not dispute that the Nintendo Switch console includes a "computing device." *See* Resps. Br. at 47. However, the parties dispute whether selected components of the Nintendo Switch console may satisfy this limitation.

The administrative law judge finds that one of ordinary skill in the art would not understand a "computing device" to be a selection of parts, as Gamevice asserts. *See* RX-1824C (Stern RWS) at Q/A 276-79. Gamevice's interpretation is in conflict with the plain language of the claim. Gamevice argues that Nintendo is confusing Dr. Singhose's tear-down analysis of the Nintendo Switch console as meaning that Gamevice is accusing the torn-down version of the

product. *See* Compl. Br. at 43. However, the issue is whether the identified parts "meet the definition of 'electronic equipment controlled by a CPU' to be considered a 'computing device.'" *See* RX-1824C (Stern RWS) at Q/A 279. Gamevice identifies collections of parts that cannot be considered a computing device because Gamevice has not shown that such arbitrary collections of parts would function as the claimed "device." *Id.* Rather, one skilled in the art would understand that, in the context of the '393 patent, the "computing device" would be satisfied by the Nintendo Switch console as a whole. *See id.* at Q/A 251. The specification explains that "the computing device 102 may take the form of a tablet, smart phone, notebook computer, or other portable computing device[.]" JX-0001 ('393 patent) at col. 4, lns. 43-45. One skilled in the art would not understand Gamevice's selected components of the Nintendo Switch console to constitute a device. *See id.*

The record evidence thus demonstrates that the Nintendo Switch includes a computing device. *See* CX-0001C (Singhose DWS) Q/A 343; RX-1824C (Stern RWS) at Q/A 241.

3. a pair of confinement structures,

The record evidence demonstrates that the Nintendo Switch does not include a pair of confinement structures. *See* RX-1824C (Stern RWS) at Q/A 367-411.

Gamevice argues, in part:

> The "[a pair of] confinement structures" limitation is met by the Nintendo Switch's side rails. *See* CX-0001C at Q/A 359-400; CDX-0001C at 46-56. Under Gamevice's proposed construction, *see* JX-0014 at 2-3, the side rails (including their attached flexible printed circuits) hold the computing device by being in pressing contact through screws with the Switch console's back cover, thus exerting a compressive force on the "computing device." *See* CX-0001C at Q/A 361-370; CDX-0001C at 46-49; CX-0135C,[[redacted]]On cross-examination, Dr. Stern agreed that a user can hold the console by the Joy-con controllers like they would a pot by its handles, and that Nintendo's analogy of the side rails to a car's side view mirrors is inapt. *See* Stern Tr. 523:5-527:23.

Under OUII's proposed means-plus-function construction (corresponding structure (3)) as well as Nintendo's proposed construction, *see* JX-0014 at 2-3, this limitation is met literally, or alternatively under the doctrine of equivalents. The Nintendo Switch's side rails perform the identical or substantially the same function as the claimed "confinement structures"—they confine the computing device because the side rails are screwed to the side tabs/flanges of the back cover, and thus are in pressing contact with opposite sides of the computing device. *See* CX-0001C at Q/A 371-379; CDX-0001C at 50-51; *See* CX-0001C at Q/A 391-401; CDX-0001C at 56. They do so in substantially the same way as the claimed "confinement structures." The Nintendo Switch's side rails attach to the upper frame ("structural bridge," *see* claim limitation [1e] below), using adjustable screws that provide sufficient compressive load on the computing device to securely hold the computing device between the side rails. *See* CX-0001C at Q/A 375-379; CDX-0001C at 51. The side rails also achieve substantially the same result as the claimed "confinement structures" because they securely hold the computing device between the side rails and allow removal of the computing device upon removal of the compressive load by adjusting the screws. *See* CX-0001C at Q/A 375-379; CDX-0001C at 51. Indeed, in this regard, the Nintendo Switch's side rails are very similar to the '393 patent's confinement structures 316. *See* CX-0001C at Q/A 398; CDX-0001C at 56.

Contrary to Nintendo's positions, neither the claim nor OUII's proposed construction requires the confinement structures to comprise a computing device cradle, such as cradle 336 in the '393 patent. *See* CX-0001C at Q/A 380-381. In any event, the Nintendo Switch's side rails do include a computing device cradle. *See id. at* Q/A 382; CDX-0001C at 52. Moreover, the "adjustable fastening mechanism" appearing in OUII's corresponding structure (3) is not limited to a soft draw latch, because "fastening mechanism" itself is not a claim term. Nintendo improperly re-construes the construction to import a limitation that does not appear anywhere in the '393 patent's claims. *See* CX-0001C at Q/A 383. Also, the screws that secure the side rails to the back cover of the console, even if they are tightened with a high degree of precision and tightened or loosened only for repair and maintenance, are adjustable. *See id. at* Q/A 384. Moreover, it is irrelevant that the side rails do not squeeze the computing device as a whole or are not the only things holding it, because they provide sufficient compressive force to securely hold the computing device between the side rails, which is all that OUII's and Nintendo's constructions require. *See id. at* Q/A 385-390, 397-400; CDX-0001C at 52-55.

Compl. Br. at 43-45.

Nintendo argues, in part:

Claims 1–4, 6–7, and 17–18 require "a pair of confinement structures." Gamevice says the rails on the sides of the console are the confinement structures, but this is incorrect under all constructions of the term. RX-1824C, Q366. The

claims include several additional requirements for the confinement structures: (1) that the confinement structures be separate and distinct from the structural bridge; (2) that game control modules be in electronic communication with the communication links of the confinement structures and that the communication links be in electronic communication with the computing device (or CPU of the computing device); (3) that the confinement structures be adjacent at least two, but no more than three sides of the computing device; and (4) for claim 17, that the confinement structures "adapt to" and are in "pressing contact with said end points of the length of the computing device." Gamevice failed to prove each of these limitations are met. RX-1824C, Q366, 517, 769–70.

* * *

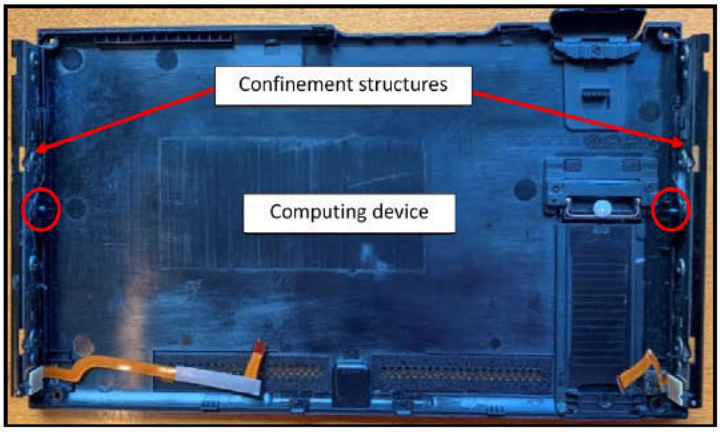
Gamevice asserts the rails of the Nintendo Switch console are the "confinement structures" required by claims 1–4, 6–7, and 17–18. CX-1C, Q359. This is incorrect. RX-1824C, Q367–423. The specification includes only one embodiment describing what confinement structures are, and in that embodiment—Figures 16–25—the confinement structures are described as part of an input device that clamps to the sides of a computing device using the compressive force of a soft-draw latch fastening mechanism. JX-1, 9:21–10:20; RX-60C, Q172–81; RX-1824C, Q305; RDX-6 (animation based on figures of JX-1). The rails are nothing like that. Instead, they are an integrated part of the console itself. RX-1824C, Q365–423.

* * *

As will be shown below, throughout its discussion of the "confinement structure" limitation, Gamevice cites and relies on Dr. Singhose's testimony that the lower housing—that is, the plastic back that Gamevice says is part of the computing device—has threaded holes. *See, e.g.*, CPBr.41 (relying on CX-1C, Q367), 51, 64, 70. Dr. Singhose testified that "the back cover of the Switch console has two flanges protruding from the sides, which have *threaded holes* for screws to go through the side rails and the flanges, and hold them together." CX-1C, Q367. And he testified about the "screws going through the *threaded holes* in the side

flanges on the back cover of the console." *Id.*, Q386. And he testified that "the side rails apply a sufficient compressive load on the computing device through the interaction of the screws and *threaded holes in the computing device.*" *Id.*, Q393. And he testified about the "*threaded holes* in the back cover of computing device," *id.*, Q395, "the *threaded holes* in the side flanges on the back cover, " *id.*, Q400, and how "the screws … fit into the *threaded holes* of the side tabs of the back cover" *id*, Q659. Dr. Singhose also testified that the screw through the rail goes into "the *threaded holes* on the side tabs of the back cover for the Switch console" *id.*, Q659, 665, 675, and Dr. Singhose offered a photograph on slide CDX-1C.112 (annotated photograph of CPX-21) (right) purporting to "show[] the side rails screwed into the threaded holes on the side tabs of the back cover of the Nintendo Switch console." *Id.*, Q660. And Dr. Singhose repeated these statements over and over and over again. *Id.*, Q663, 665, 675, 726, 725.

At the hearing, Dr. Singhose recanted all of this testimony, admitting that, in fact, the identified holes in the lower housing were not threaded at all and "the back just has through-holes." Tr. 237:1–4 ("Q. So I think we can agree, can't we, that the back has no threads and notwithstanding what you say about it in your testimony, right? A. Yeah, the back just has through-holes."). While it would have only taken a matter of minutes for Dr. Singhose to disassemble the console and visually confirm that the holes were not threaded (as a purported expert would be expected to do for any reliable analysis)—and in fact, he did just that live at the hearing, Tr. 234:4–9 ("those side flange holes, as we just clearly saw, are not threaded")—Dr. Singhose offered this testimony anyway. Gamevice presented this testimony and relied on it throughout its Prehearing Brief. CPBr.41 (relying on CX-1C, Q367), 51, 64, 70. As discussed in more detail below, where Gamevice has relied on this testimony, it now lacks evidence to support its contentions, and the ALJ should consider Gamevice's reliance on this testimony as a failure of proof.



* * *

While Gamevice says that it is applying the construction of "confinement structures" from the 1111 Investigation, in fact, its application of that construction warps it to the point that it no longer bears any relationship with the ALJ's prior construction and unmoors it from the specification. The ALJ construed "confinement structures" as "components that hold a computing device." JX-15.29. But in so construing the term, the ALJ quoted the specification's discussion

> of the communication port embodiment, and specifically that the confinement structures hold a computing device between them by being compressed to the computing device's sides via a fastening mechanism. JX-15.31 (quoting RX-94, 9:53–10:21); JX-1, 10:4–20.
>
> * * *
>
> At the hearing, Gamevice tried to warp this construction so that it would cover any part by which the console can be picked up. Tr. 524:6–23. According to Gamevice, because the console can be picked up by the integrated rails, the rails hold the computing device, and therefore, are confinement structures. *Id.* Indeed, Gamevice's counsel tried to argue that the rails are like handles on a pot by which a pot can be lifted off a stove. Tr. 524:13–525:7. But of course, the confinement structures disclosed in the specification do not describe the handles of a pot—the handles of a pot are part of the pot, whereas the pair of confinement structures are part of a different structure (the input device) that attaches to a separate computing device by squeezing that device between the pair. RX-1824C, Q305. Indeed, Nintendo demonstrated that under Gamevice's application of the construction—where anything that can be used to pick up a computing device is a confinement structure—the card slot door on the console would also be a confinement structure, which is implausible on its face. Singhose Tr. 217:5–219:5; RX-1824C, Q378; RDX-12 (RPX-9); RDX-3C.39 (RPX-9). Dr. Singhose complained that this example took confinement structures "out of context," Tr. 218:24–219:5, but that is precisely the point. Gamevice cannot abstract what it means to "hold" a "computing device" from the teachings in the specification. A handle for a pot, a card slot door, and the integrated rails do not hold a computing device as the confinement structures described in the specification do.

Resps. Br. at 68-72 (footnote omitted).

The Staff argues, in part:

> Claim 1 of the '393 patent recites "a pair of confinement structures." JX-0001 ('393 patent) at cl. 1. The parties have offered three different constructions for this claim term. *See* JX-0014 (Joint Claim Construction Statement). Gamevice contends that this limitation is met under any of the three constructions. Compl. P.H. Br. at 41-44. Conversely, Nintendo contends that this limitation is not met under any construction. Resps. P.H. Br. at 76-83. In the Staff's view, the structures identified by Gamevice do not satisfy the "confinement structure" limitations of the claims under any party's construction.
>
> Gamevice contends that the "rails" of the Nintendo Switch Console device satisfy the "confinement structures" limitation under any of the proposed constructions. *See* Compl. P.H. Br. at 41-44. The Staff disagrees. First, under the various constructions, the "confinement structures" must "hold the computing device," or must perform the function of "confining the computing device" or

> "interacting with the computing device." *See* JX-0014 (Joint Claim Construction Statement). In each instance, the alleged structure must be different from the computing device, otherwise it would not be able to hold, confine, or interact with the computing device. *See id.* Gamevice contends that the "rails" of the Nintendo Switch Console device satisfy this limitation. *See* Compl. P.H. Br. at 41-44. But because the rails are part of the computing device, it is nonsensical to say that the "rails" hold, confine, or interact with the computing device. *See* Resps. P.H. Br. at 77-78. "They no more hold the Nintendo Switch console than a car's side-view mirrors hold the car, or one's ears hold one's head." *Id* at 78.
>
> Accordingly, the accused Nintendo products do not satisfy the "confinement structures" limitations of the claims.

Staff Br. at 38-39.

The construction of this claim term was discussed above. The claim term "confinement structures" is construed to mean "components that hold a computing device."

Under the adopted construction, the Nintendo Switch console's rails do not satisfy the limitation because the rails are part of the computing device, and therefore cannot hold the computing device.

Gamevice argues that the side rails hold the computing device by being in pressing contact through screws with the Switch console's back cover, thus exerting a compressive force on the "computing device." *See* Compl. Br. at 43. However, the specification describes confinement structures that apply "sufficient compressive load … on the computing device 302 to securely hold the computing device between the pair of confinement structures." JX-0001 ('393 patent) at col. 10, lns. 14-18. The specification does not describe a situation where the "confinement structures" hold the computing device by being in pressing contact through screws. When a collection of components are securely screwed together to form a device, it is nonsensical to describe the attached outer components as "hold[ing]" the inner components. *See* RX-1824C (Stern RWS) at Q/A 376. The rails are attached to, and inset into, the console, and

whereas the confinement structures described in the specification hold the computing device between them, the rails are simply part of the computing device itself. *See id.* at Q/A 376-77. As Dr. Stern testified, the rails are like bumpers of a car as they are structurally integral to the frame of a car. Stern Tr. 526-527. Even though a car may be lifted by its bumpers, one of ordinary skill in the art would not consider the bumpers to hold the rest of the car any more than the attached side mirrors do. *Id.*; RX-1824C (Stern RWS) at Q/A 377.

If, however, the rails are considered "confinement structures," separate from the "computing device," the administrative law judge finds that the rails of the Nintendo Switch console are "components that hold a computing device." As Dr. Singhose testified, the rails of the Nintendo Switch console hold the computing device by being in pressing contact with the Switch console's back cover. *See* CX-0001C (Singhose DWS) at Q/A 360-71.

Accordingly, it is determined that the Nintendo Switch does not satisfy this claim limitation under the adopted claim construction.

4. the pair of confinement structures interacting with the computing device and adjacent at least two opposing sides of the computing device, but not more than three sides of the sides of the computing device;

The accused Nintendo Switch does not satisfy this claim limitation. *See* RX-1824C (Stern RWS) at Q/A 376-81.

Gamevice argues, in part:

> Under the parties' agreed construction of "adjacent," *see* JX-0014 at 2, this limitation is literally met. As discussed above with respect to claim limitation [1b] under Nintendo's proposed construction, the Nintendo's side rails interact with the computing device. *See* CX-0001C at Q/A 401. Further, the side rails are nearby and next to two opposing sides (left and right) of the computing device defined by the side panels and side tabs/flanges of the Nintendo Switch console's back cover. *See id. at* Q/A 402-408; CDX-0001C at 57-59; CX-0135C at 40. The side rails sit on top of the side panels and interact with the side flanges via screws. *See* CX-

> 0001C at Q/A 404. Contrary to Nintendo's positions, Fig. 16 of the '393 patent only shows confinement structures 316 adjacent two opposing sides of computing device 302. *See id. at* Q/A 410. Consistent with Fig. 16, the Nintendo Switch's sides rails are nearby only two opposing sides (left and right) of the Nintendo Switch console's back cover, not its the top and bottom sides. *See id. at* Q/A 409-411; CDX-0001C at 60. Moreover, the claim language does not require the "confinement structures" to be closer to the bottom portion of the side rather than the top portion or vice versa. *See* CX-0001C at Q/A 412.

Compl. Br. at 44.

> Nintendo argues, in part:
>
> > Claims 1–4 and 6–7 require that the "confinement structures" be "adjacent" to "not more than three sides" of the recited "computing device." Gamevice says that the recited "computing device" includes the plastic lower housing, and that the rails meet the "confinement structures" requirement. This theory—which is wrong for many other reasons—also means that the rails cannot meet the "not more than three sides" requirement because, under Gamevice's infringement theory, the rails would violate the three-side limitation and be "adjacent" to four sides of the supposed computing device. RX-1824C, Q424–38.
> >
> > Gamevice concedes, as it must, that the rails are "adjacent"—that is "nearby but not necessarily next to," JX-14.2—the left and right sides of what Gamevice calls the "computing device." CX-1C, Q404–06. That means they can only be adjacent to one more side, but in fact, the rails are also adjacent to both the top and bottom (that is, four sides in total). As measured by Dr. Stern, the rails are approximately 11 mm wide and are approximately 5.4 mm from the top and bottom of the lower housing. RX-1824C, Q429–30; RDX-3C.45 (documenting measurement, RX-1824C, Q429); Stern Tr. 529:10–23. Based on the relative measurements of the width and length of the rails, a POSA would understand that the rails are "nearby but not necessarily next to" the top and bottom of the purported "computing device." RX-1824C, Q431–32; Stern Tr. 528:1–529:6. Therefore, the rails are adjacent four sides (left, right, top, and bottom), and claim 1 and its dependent claims are not infringed.

Resps. Br. at 83-84.

> The Staff argues, in part:
>
> > Claim 1 of the '393 patent requires a pair of confinement structures that are "adjacent at least two opposing sides of the computing device, but not more than three sides of the sides of the computing device." JX-0001 ('393 patent) at cl. 1. The parties have agreed that the term "adjacent" means "nearby but not necessarily next to." JX-0014 (Joint Claim Construction Chart). As discussed above, the parties dispute whether the "confinement structures" limitation is met by the rails

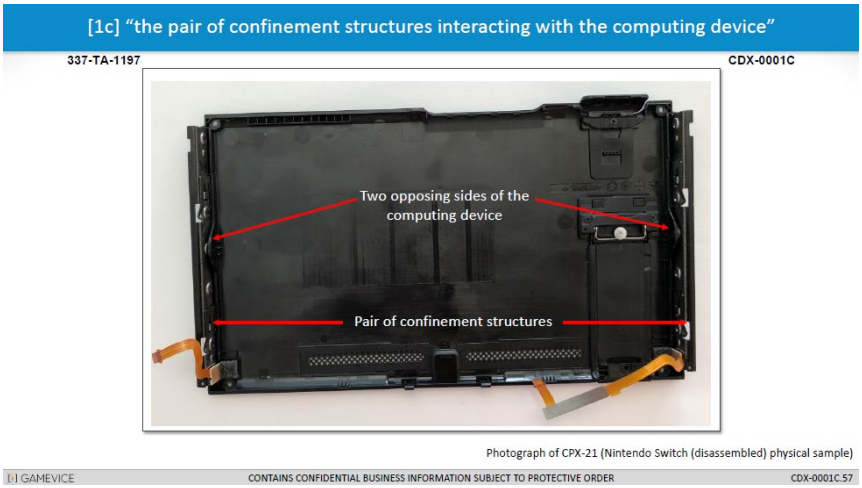
of the Nintendo Switch Console. As discussed above, the accused Nintendo products do not satisfy the "confinement structures" limitation. If there are no confinement structures, this limitation cannot be met. If, however, the rails are considered "confinement structures," as Gamevice argues they should, Nintendo contends that the accused products still do not satisfy this limitation of claim 1 of the '393 patent because the rails are "adjacent" to four sides of the alleged computing device. *See* Resps. P.H. Br. at 86-87; RX-1824C (Stern WS) at Q/A 424-438. Conversely, Gamevice argues that "the Nintendo Switch's side[] rails are nearby only two opposing sides (left and right) of the Nintendo Switch console's back cover, not it's [] top and bottom sides." Compl. P.H. Br. at 44-45; CX-0001C (Singhose WS) at Q/A 410. Professor Singhose responded to Nintendo's expert, Dr. Stern, as follows:

> I disagree with Dr. Stern's argument because he is improperly characterizing top and bottom portions of the left and right sides of the back cover of the Switch console as the top and bottom sides of the back cover. That is not an accurate statement about the back cover because that top and bottom portions still belong to the side of the back cover. I took pictures of the sides of the back cover of the console to better illustrate my point. In my opinion, a person of ordinary skill in the art would not consider that top portions of the sides of the back cover to be the "top" of the computing device.
>
> I note that Dr. Stern is significantly mischaracterizing the embodiment shown in figure 16. The portion he is calling the "bottom" in that figure is part of the left and right sides. Figure 16 does not show confinement structures placed on three sides of the computing device.

CX-0001C (Singhose WS) at Q/A 410.

As demonstrated by Prof. Singhose, the rails of the Nintendo Switch Console are only adjacent two opposing sides of the alleged computing device:

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> CX-0001C (Singhose WS) at Q/A 402-412; CDX-0001C (Singhose Demonstratives) at 0057.
>
> Accordingly, for the reasons set forth above, the accused Nintendo products do not satisfy the "confinement structures" limitation of claims 1d. If there are no "confinement structures," then then there can be no confinement structures that are "adjacent at least two opposing sides of the computing device, but not more than three sides of the sides of the computing device." JX-0001 ('393 patent) at cl. 1. If, however, the rails of the Nintendo Switch Console are deemed "confinement structures," then those structures are adjacent to two sides of the computing device, and this limitation is met.

Staff Br. at 39-41.

The construction of this claim term was discussed above. The claim term "confinement structures" is construed to mean "components that hold a computing device." The parties have agreed that the term "adjacent" means "nearby but not necessarily next to." JX-0014.

Under the adopted construction, the Nintendo Switch console's rails do not satisfy the limitation because the rails are part of the computing device, and therefore are not "adjacent at least two opposing sides of the computing device, but not more than three sides of the sides of the computing device." The rails are portions of the computing device itself.

If, however, the rails are considered "confinement structures," separate from the "computing device," the administrative law judge finds that the rails of the Nintendo Switch

console are only adjacent two opposing sides of the alleged computing device. Nintendo contends that the accused products still do not satisfy this limitation of claim 1 of the '393 patent because the rails are "adjacent" to four sides of the alleged computing device. *See* Resps. Br. at 83-84 (citing RX-1824C (Stern RWS) at Q/A 424-38). However, as Dr. Singhose testified, the Nintendo Switch console's rails of the are only adjacent two opposing sides of the alleged computing device. *See* CX-0001C (Singhose DWS) at Q/A 410.

Accordingly, it is determined that the Nintendo Switch does not satisfy this claim limitation under the adopted claim construction.

5. each of the pair of confinement structures comprising a communication link, each of the communication links configured for electronic communication with the computing device;

The Nintendo Switch does not satisfy this claim limitation. *See* RX-1824C (Stern RWS) at Q/A 774-77.

Gamevice argues, in part:

> In the Nintendo Switch, each of the side rails ("pair of confinement structures") comprises a flexible printed circuit, which is a "communication link." *See* CX-0001C at Q/A 413-414; CDX-0001C at 61. Second,[[redacted] *See* CX-0001C at Q/A 415-417, 419-420; CDX-0001C at 62; CX-0141C, [redacted]] Contrary to Nintendo's position, the claimed "electronic communication" does not require processing of signals passing through a wire, or system including a transmitter, a communication medium or channel, a receiver, and noise. Nintendo improperly imports these limitations into the claims. *See* CX-0001C at Q/A 416-417. Moreover,[[redacted]] *See id. at* Q/A 417. Finally, claim 1 does not require the claimed "communication link" to contribute to holding the computing device. They only require the "[pair of] confinement structures" to do so, and also to comprise "communication links." *See* JX-0001 at claim 1; CX-0001C at Q/A 421-422.

Compl. Br. at 45-46.

Respondents argue, in part:

> The claims recite two different stages in the "electronic communication" chain between the controllers and the recited "computing device," and Gamevice has not—and cannot—prove either stage. Claims 1–4, 6–7, and 18 recite the first stage in the chain as the "game control modules" or "control modules" in "electronic communication" with the "communication link[s]" of the "confinement structures." Claims 1–4, 6–7, and 17–18 recite the second stage in the chain as the "communication link[s]" of the "confinement structures" are in "electronic communication" with the recited "computing device" (claims 1–4, 6–7) or the "central processing unit" of the recited "computing device" (claim 17, depending from claim 16). In sum, the claims require two stages: (1) "electronic communication" between the "modules" and the "communication link[s]" of the "confinement structures"; and (2) "electronic communication" between the "communication link[s]" of the "confinement structures" and the "computing device" (or CPU of the "computing device"). The claims *do not* recite "electronic communication" between the "modules" and the "computing device." This is significant because the only evidence Gamevice proffers is the undisputed fact that the Joy-Con are in direct electronic communication with the Nintendo Switch console. But this undisputed fact does not meet this limitation.
>
> * * *
>
> For the first stage in the chain—the "electronic communication" between the "modules" and the "communication link"—Gamevice contends that the Joy-Con are the recited "electronic game control modules," or "control modules," and that the FPCs in the rails are the recited "communication link[s]." CX-1C, Q476, 743. Yet, Gamevice offers no evidence that the Joy-Con are in *electronic*—as opposed to electrical—communication with the FPCs. RX-1824C, Q526. Instead, the entirety of Gamevice's evidence on this point is Dr. Singhose's assertion that "the side rails have connectors that engage with the connectors on the Joy-Con to send signals containing information through the flexible printed circuits." CX-1C, Q476. But the claims require more than just "send[ing] signals" via the FPCs, as that is merely electrical communication, not the required *electronic* communication. RX-1824C, Q521–25.
>
> Gamevice offers no evidence of *electronic* communication between the Joy-Con and the FPCs because there is none. [[redacted]] *Id.* Thus, this limitation is not met.

> For the second stage—"electronic communication" between the "communication link[s]" and the "computing device" (or CPU of the "computing device")—Gamevice points to the other end of the FPCs from the rails where they terminate on the main printed circuit board. CX-1C, Q415, 727. But Gamevice offers no competent evidence that there is *electronic* communication between the FPCs and the circuit board, relying instead on conclusions from Dr. Singhose that the signals are *electronic* communication because he says they are. CX-1C, Q415–17, 419–22. *Kim*, 465 F.3d at 1320 (mere conclusions are not evidence). [ ]RX-1824C, Q774–77. Again, there is indisputably electronic communication between the *Joy-Con* and the *console*, but that is not what the claim requires. Instead, the claim requires *electronic* communication between the *communication links themselves* and the *computing device*, and Gamevice offers no evidence establishing this. *Id.*
>
> Late in the game, Gamevice recognized its failure of proof on this second link—although it never recognized its failure on the first link—and attempted to shoehorn testimony regarding [ ]But the ALJ excluded that late testimony as not disclosed. Order No. 11 at 2 (granting Nintendo's motion in limine regarding CX-1C, Q418). While Gamevice attempted to revive this argument at the hearing through cross-examination of Dr. Stern, Gamevice failed because Dr. Stern confirmed that the only communication between the FPCs and the main circuit board is electrical communication, and not *electronic* communication. Tr. 589:1–24, 596:5–8. Therefore, Dr. Stern's testimony stands unrebutted as the only admitted testimony from the perspective of a POSA, and that evidence unequivocally shows that there is no *electronic* communication between the FPCs and the main circuit board.

Resps. Br. at 80-83.

The Staff argues that the Nintendo Switch does not satisfy this limitation. *See* Staff Br. at 45-48.

As an initial matter, the construction of "confinement structures" was discussed above. The claim term "confinement structures" is construed to mean "components that hold a computing device."

As discussed above, the administrative law judge finds that the rails are part of the "computing device." Hence, the Nintendo Switch console's rails do not satisfy the limitation are not "confinement structures," because the rails are portions of the computing device itself.

If, however, the rails are considered "confinement structures," separate from the "computing device," the administrative law judge finds that Gamevice has not shown that the Nintendo Switch console's rails comprise a communication link, each of the communication links configured for electronic communication with the computing device.

No party requested a construction of "electronic communication." *See* JX-0014. However, the claims distinguish between the recited terms "electronic communication" and "electrical communication." *See* JX-0001 ('393 patent) at claim 1. Inasmuch as claim 1 uses two different terms, they are presumed to have different meanings. *Helmsderfer v. Bobrick Washroom Equipment, Inc.*, 527 F.3d 1379 (Fed. Cir. 2008) ("Our precedent instructs that different claim terms are presumed to have different meanings.") (citing *Applied Med. Res. Corp. v. U.S. Surgical Corp*., 448 F.3d 1324, 1333 n. 3 (Fed. Cir. 2006) ("[T]he use of two terms in a claim requires that they connote different meanings...."); *CAE Screenplates Inc. v. Heinrich Fiedler GmbH*, 224 F.3d 1308, 1317 (Fed. Cir. 2000) ("In the absence of evidence to the contrary, we must presume that the use of these different terms in the claims connotes different meanings.").

Gamevice fails to draw any meaningful distinction between "electronic communication" and "electrical communication." *See* Compl. Br. at 45; CX-0001C (Singhose WS) at Q/A 413-22. Dr. Singhose appears to equate electrical and electronic communication. *See id.* To show "electrical communication," Dr. Singhose testified that "the upper frame supports and promotes electrical communication through the flexible printed circuits and the PCB. This electrical communication is achieved through the flexible printed circuits connecting the pin connectors on the PCB." CX-0001C (Singhose DWS) at Q/A 443. To show "electronic communication," he identified "[t]he flexible printed circuits, which [he] referred to as the

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communication links connect to the PCB, to enable electronic communication with the computing device." *Id.* at Q/A 415. Gamevice thus relies upon the same flexible printed circuits for both "electronic communication" and "electrical communication" without any meaningful basis to overcome the presumption that these terms connote different meanings.

The administrative law judge finds that there is a difference between electrical communication and electronic communication. As Dr. Stern testified, electronic communication requires components that exchange information, not just electrons. *Id.* at Q/A 525. A network card in a computer may be said to be in electronic communication with the server with which it is communicating because each end of that communication "understands" and can act on the information being transmitted and received. *Id.* To one of ordinary skill in the art, the cables carrying those communications, such as an ethernet cable running from the wall to the computer for example, are only in electrical communication, not electronic communication. *See id.*

The administrative law judge thus finds that a person of ordinary skill in the art would recognize a difference between electrical communication and electronic communications. *See* RX-1824C (Stern RWS) at Q/A 521-30. Gamevice relies on conclusions from Dr. Singhose that the signals are electronic communication. *See* CX-0001C (Singhose DWS) at Q/A 415-17, 419-22. [[redacted]] *See* RX-1824C (Stern RWS) at Q/A 774-77.

Accordingly, it is determined that the Nintendo Switch does not satisfy this claim limitation under the adopted claim construction.

6. a rigid structural bridge disposed between and secured to the pair of confinement structures,

The administrative law judge finds that the Nintendo Switch does not include this feature of claim 1. *See* RX-1824C (Stern RWS) at Q/A 207-14, 278, 294.

Gamevice argues, in part:

> The "structural bridge" limitation is satisfied by the Nintendo Switch's upper frame, which is disposed between and secured to the Nintendo Switch's side rails ("[pair of] confinement structures," *see* claim limitation [1b]) using screws. *See* CX-0001C at Q/A 423-424; CDX-0001C at 63. The Nintendo Switch's upper frame literally meets Gamevice's and OUII's proposed constructions, *see* JX-0014 at 6, because it is a physical apparatus that connects the side rails across a space between the side rails, and also the Joy-Cons via the side rails across an obstacle, *e.g.*, the computing device, or space between the side rails. *See* CX-0001C at Q/A 427-430, 434-436; CDX-0001C at 64.
>
> Contrary to Nintendo's position, the upper frame is not an integral portion of the computing device but is a structurally separate component. *See* CX-0001C at Q/A 425-426. Moreover, the upper frame is secured to the side rails regardless of the direction in which the screws are threaded and inserted. *See id*. Also, as explained above with respect to claim limitation [1a], even if the upper frame is required for the full functionality of the Nintendo Switch, Gamevice is accusing the fully assembled Nintendo Switch as imported and sold, and the components that Gamevice has identified are sufficient to meet the proposed constructions for "computing device" and "structural bridge." *See id. at* Q/A 431-432. Further, that the upper frame serves other functions in the console does not preclude it from also serving as the "structural bridge." *See* Stern Tr. 562:18-566:10. Moreover, claim 1 does not require that the "structural bridge" be external to the "computing device." *See id. at* Q/A 432-433. In any event, the upper frame is external to the components identified as constituting the "computing device." *See id*. Also, the upper frame is not required to cross the entirety of the Nintendo Switch console, and it crosses various obstacles in the CPU PCB, which is sufficient to meet the claimed limitation under OUII's construction. *See id. at* Q/A 436.
>
> Under Nintendo's proposed construction, *see* JX-0014 at 6, this limitation is literally met because the Nintendo Switch's upper frame bears the load of the printed circuit boards forming part of the computing device, as well as other components like the battery and heat sink, and provides connection and support across a span between the side rails (across the computing device). *See* CX-0001C at Q/A 437-439; CDX-0001C at 65. Contrary to Nintendo's position, its proposed construction does not call for bearing only an external load; otherwise, this is yet another limitation that Nintendo is improperly importing into the claims. *See* CX-0001C at Q/A 440-441. Moreover, the upper frame does bear loads external to

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itself and the computing device, like the battery and heat sink. *See id*. There is no requirement in the claim that the upper frame bear loads external to the entire Nintendo Switch console, or that the upper frame be longer than every component of the computing device. *See id*.

Compl. Br. at 46-47.

Nintendo argues, in part:

Gamevice claims that an internal component of the console—the upper frame—is the "structural bridge" recited in claims 1–4, 6–8, and 17–18. CX-1C, Q423–24. But Gamevice is wrong because these claims separately recite a "computing device," and the upper frame is functionally inseparable from the console itself, making it, at most, part of the "computing device" and not the separately recited "structural bridge." RX-1824C, Q207–14, 278, 294; Stern Tr. 640:23–643:7; Singhose Tr. 246:5–8.

As discussed in Section 11, the Federal Circuit has long held that when two elements are separately recited in a claim, the presumption is that these separate elements cannot be satisfied by pointing to one and the same structure. *Becton*, 616 F.3d at 1254. Gamevice has never disputed the application of this presumption.

* * *

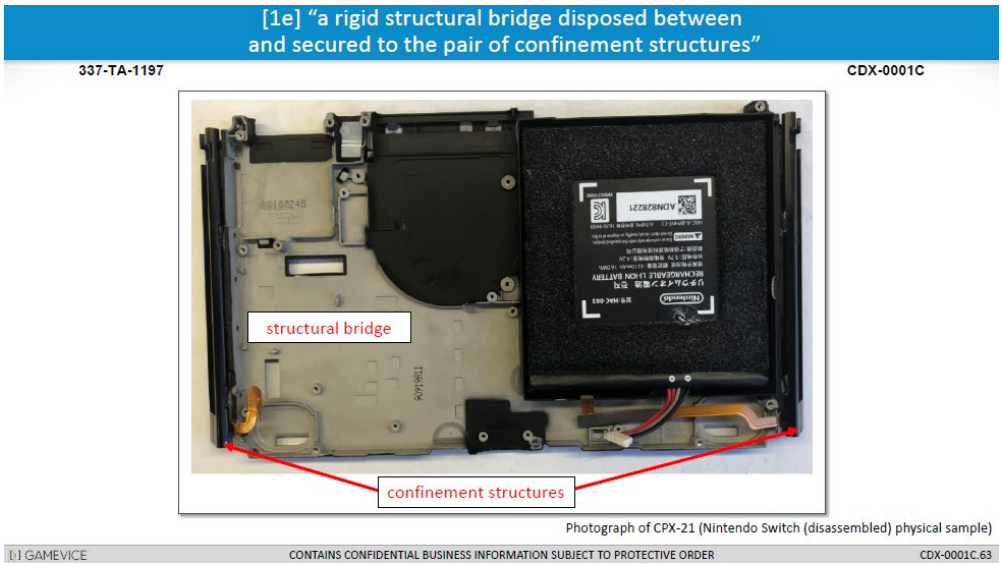
Nor does the upper frame meet the "structural bridge" limitation under either Nintendo or Staff's proposed constructions. Staff's proposed construction requires that the "structural bridge" be "a physical apparatus that connects other components across an obstacle or space." JX-14.7. The specification shows that the obstacle or space that is being bridged is the computing device itself. RX-1824C, Q328–29, 332–33. But the upper frame does not connect other components across the obstacle of the computing device, contrary to *every* embodiment of the specification. *Id.*, Q330. Instead, the upper frame is, itself, the obstacle. That is, the upper frame is part of the computing device, rendering any application of this construction to the Nintendo Switch nonsensical. *Id.*, Q331.

The upper frame also does not meet the "structural bridge" limitation under Nintendo's construction for the same reasons. RX-1824C, Q321–31, 333. Further, the upper frame fails to meet the additional requirement of Nintendo's construction, that it be a "load bearing apparatus." JX-14.7. While a number of components are attached to the upper frame assembly in the fully assembled console, a POSA would not understand the upper frame assembly to be "bear[ing]" the "load" of those components of the computing device because the upper frame assembly is also part of the computing device. RX-1824C, Q333–35.

Resps. Br. at 61-64.

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The Staff argues, in part:

> Claim 1 of the '393 patent recites "a rigid structural bridge disposed between and secured to the pair of confinement structures." JX-0001 ('393 patent) at cl. 1. The parties have proposed three different constructions for the term "structural bridge." JX-0014 (Joint Claim Construction Statement). Gamevice contends that this limitation is satisfied by the upper frame assembly of the Nintendo Switch Console device. Compl. P.H. Br. at 46-47. This assembly (shown below) provides the structural foundation for building the Nintendo Switch Console device. *See* CDX-0001C (Singhose Demo.) at 63.
>
> 
>
>
> Many of the electronic components of the Nintendo Switch are attached to this upper frame assembly. *See* RX-1824C (Stern RWS) at Q/A 285-327.
>
> In the Staff's view, the accused products do not satisfy the "structural bridge" limitation of the claims. *See* Resps. P.H. Br. at 67-70. Dr. Stern testified that "the Nintendo Switch, in its fully functional form with all of its parts intact, is considered the 'computing device,' there is no other element that can satisfy the structural bridge limitation." RX-1824C (Stern RWS) at Q/A 293. The component identified by Gamevice and Prof. Singhose as the "structural bridge" is an integral part of the Nintendo Switch Console device, and as part of the "computing device" it cannot also satisfy the "structural bridge" limitation. *See id.*
>
> Accordingly, the accused Nintendo products do not satisfy the "structural bridge" limitation.

Staff Br. at 41-42.

The construction of this claim term was discussed above. The claim term "structural bridge" is construed to mean "a physical apparatus that connects other components."

Gamevice argues that this limitation is satisfied by the Nintendo Switch's upper frame, which is disposed between and secured to the Nintendo Switch's side rails using screws. *See* Compl. Br. at 46-47. However, the specification only discloses the structural bridge as separate from the computing device. For example, figures 1-4, 8-10, 12-16, 25, 29, 30, 32-34, 36, and 39, show the computing device and a separate input device or game controller with a structural bridge (starting at Fig. 13). Similarly, figures 5, 11, 17-24, 26-28, 31, 35, 37-38, and 43-44, show only the input device or game controller (or components of it) and no computing device at all. As Dr. Singhose testified, each of these figures show the structural bridge as part of an input device and not as an integrated component of the computing device. Singhose Tr. 252-257.

Given that the claims separately recite the "computing device" and "structural bridge" and that the specification exclusively describes a structural bridge as separate from, and external to, the computing device, the administrative law judge finds that this limitation is not satisfied by the same structure as the computing device itself, of which the upper frame is a core, functional element. *See* Stern Tr. 640-643; Singhose Tr. 246; RX-1824C (Stern RWS) at Q/A 207-14, 278, 294. The administrative law judge thus finds the upper frame is not a separate structure from the console.

If, however, the upper frame is considered the "structural bridge," separate from the "computing device," the administrative law judge finds that Gamevice has not shown that the Nintendo Switch comprises a physical apparatus that connects other components. One of ordinary skill in the art would understand that "a physical apparatus that connects other components" in view of the specification could only include a component that is part of the input

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device and is not part of or integrated with the computing device. Singhose Tr. 252-257; RX-1824C (Stern RWS) at Q/A 298-316. Unlike all the structural bridges shown in the specification, the upper frame is part of the Nintendo Switch console itself. *See* RX-1824C (Stern RWS) at Q/A 317-19. Consequently, the upper frame assembly is not a "structural bridge."

Accordingly, it is determined that the Nintendo Switch does not satisfy this claim limitation under the adopted claim construction.

7. the rigid structural bridge comprising a passageway between the pair of confinement structures,

The record evidence demonstrates that the Nintendo Switch does not include a rigid structural bridge comprising a passageway between the pair of confinement structures. *See* RX-1824C (Stern RWS) at Q/A 471-72, 482-83.

Gamevice argues, in part:

> The "passageway" limitation is met by the upper frame of the Nintendo Switch console. As shown in CDX-0001C at 66-67, the upper frame has a tray-like structure disposed between the side rails. *See* Stern Tr. 577:7-581:13. The tray-like structure provides a three-dimensional space in the lower portion of the upper frame assembly to meet the "passageway" limitation. The PCBs are located in that space and the flexible printed circuits from the side rails connect to pin connectors on the PCB, such that the corresponding portion of the upper frame supports and promotes electrical communication between the flexible printed circuits and the PCB. *See* CX-0001C at Q/A 442-445, 448-449, 456; CDX-0001C at 66-68; Stern Tr. 582:18-587:11; RX-0994C, [redacted].]
>
> Under Gamevice's and OUII's proposed construction, the portion of the upper frame identified above as the passageway accommodates a flexible printed circuit, which has numerous communication wires. *See* CX-0001C at Q/A 446-447. Under Nintendo's proposed construction, the portion of the upper frame identified above as the passageway holds the flexible printed circuits because the flexible printed circuits are not free to move within the passageway, but rather are restricted in their movement. *See id. at* Q/A 455-456; CDX-0001 at 68.
>
> Contrary to OUII's position, the passageway identified satisfies this claimed

limitation because it is not required to internal to the structural bridge, just as a freeway under the open skies is as much a passageway for cars as one inside a tunnel. Contrary to Nintendo's position, the passageway identified above is well-defined. *See* CX-0001C at Q/A 451; CDX-0001C at 66-68. Further, as Dr. Stern agreed, the claims do not require that the two "confinement structures" must be in communication with each other. *See* CX-0001C at Q/A 451; Stern Tr. 572:20-574:2. Instead, the claim only requires that the passageway is located anywhere between the two confinement structures. *See id*. Moreover, the claims do not require that the passageway be a straight path from one "confinement structure" to the other. *See id. at* Q/A 452, 460-461. In this regard, Nintendo improperly reads in limitations from preferred specification embodiments into the claims. *See id*.; Stern Tr. 574:4-576:6. Further, the claims do not require the passageway to have nothing but a communication wire. *See id*. Also, the fact that the identified passageway may include an area for a heat sink where thermal putty is applied is irrelevant because the identified passageway meets the claimed limitations. *See id. at* Q/A 453-454. Moreover, the claims do not require that the entire area of the "passageway" must be capable of accommodating a communication wire. *See id. at* Q/A 454, 457-459. Further, Nintendo incorrectly relies on a proposed construction for this claim term from the 1111 Investigation, which none of the parties have proposed in this investigation. *See id. at* Q/A 459-461.

Compl. Br. at 47-49.

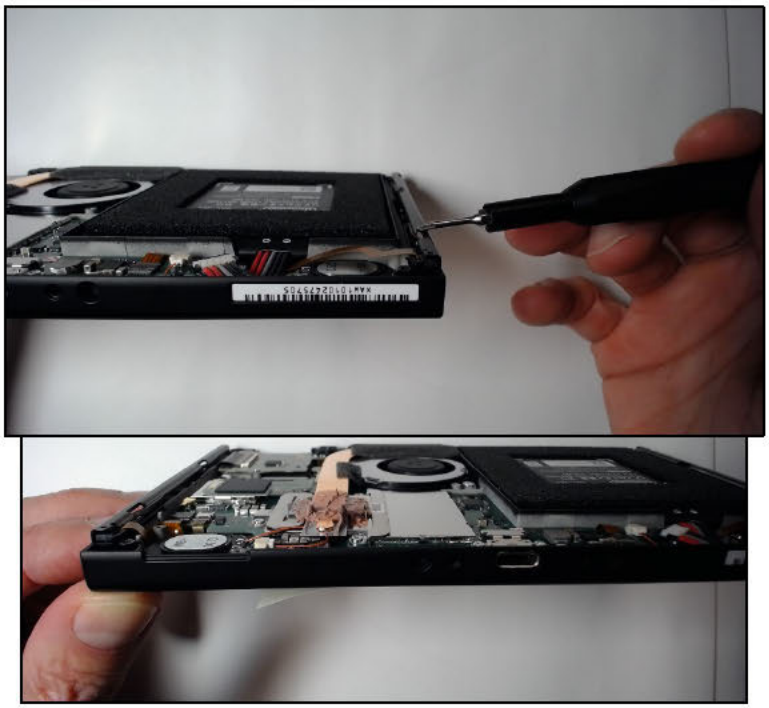
Nintendo argues, in part:

> As discussed above in Section 9.4, while the specification never uses the term "passageway," it does describe a "conduit." That disclosed passageway runs from one side of the accessory to the other—that is, "between the pair of confinement structures"—and houses a wire that allows the two sides of the accessory to communicate with each other. JX-1, Fig. 17, 9:67–10:7; RX-1824C, Q82, 465–69. But not every structural bridge is disclosed to have a passageway. As Staff pointed out in its Prehearing Brief, the '393 patent also "discloses structural bridges without any conduit or other passageway, such as the structural bridge shown in Fig. 15." SPBr.44–45. And as Staff further stated, "the upper frame assembly of the Nintendo Switch Console device does not provide a passageway, so wires must be run externally to the upper frame assembly." *Id.* The evidence at the hearing demonstrated this to be exactly correct. RX-1824C, Q470–73, 479, 482–83; Stern Tr. 634:5–638:2; RX-994.28–30.
>
> Using RPX-85 (shown in RDX-219 and 220 (below)), Dr. Stern described how the flexible printed circuits ("FPCs") from the rails are routed externally to the upper frame:

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Q. Okay. Can you describe for us how the wires are actually routed so we can get some clarity on this?

A. Yes. Starting with the right rail and FPC, the wire is routed over the higher wall of the upper housing, and then it kind of hangs here loosely over the top of the speaker. And then it's routed underneath the power wires down to the floor or the lower portion of the upper frame, and then it has to be wrapped, come up and then wrap over onto the PCB. So it's quite a circuitous route of going over and under different components.



One of ordinary skill would simply say that's—that's an indication of a lack of a passageway. And on the opposite side, this side over here (indicating), the FPC also has to go over the higher wall of the upper housing. And then it has to be forced at an angle between the wall and this—this boss here for mounting. And then it has to be looped back on itself in order to change orientation to be mounted on—on the main PCB.

And, similarly, this is—this routing indicates really a lack of a passageway. It has to just be worked around existing structures in order to be connected.

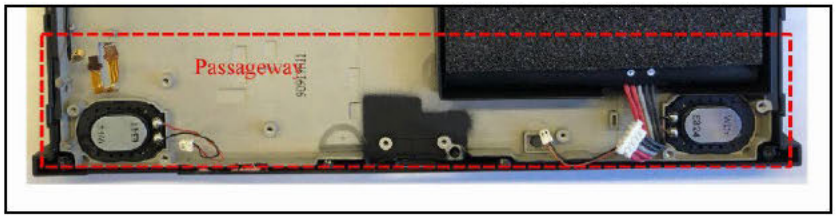
Tr. 634:15–635:10.

Dr. Stern prepared a demonstrative (below) clearly showing the circuitous route of the FPCs, and how "the purported 'structural bridge' includes items that interfere with the FPC," as opposed to accommodating it. RX-1824C, Q471–72, 482–83; RDX-3C.55 (RX-1656; RX-1657 (each showing RPX-39)).

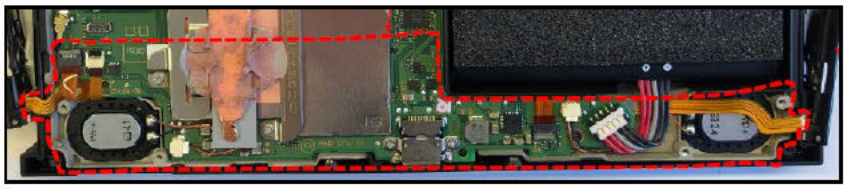


As the evidence showed, the FPCs from the rails run over the edges of the upper frame and independently terminate on the left and right side of the main printed circuit board. RX-1824C, Q471–72, 482–83; RX-994C.28–30. The FPCs do not run from one side of the device to the other, as the Joy-Con do not communicate with each other when connected to the rails. RX-1824C, Q471. This is very different from the game controller described in the specification. RX-1824C, Q465–69; JX-1, 8:50–54; 9:4–15; 15:26–30. As a result, there is no need for, and the upper frame does not have, a passageway between the rails, as the claims require. RX-1824C, Q469–71.

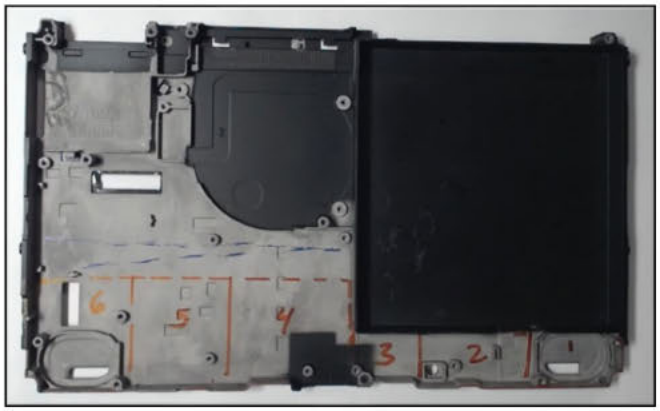
But Gamevice says there is, and to that end, selected some arbitrary space above the upper frame, and called that the passageway, as seen in Gamevice's final infringement contentions (right). *Id.*, Q474–83; RDX-3C.56 (showing RX-1387C.41 (Gamevice's final infringement contentions)). But most of the area Gamevice identifies as the passageway has nothing to do with the FPCs, and even includes portions of the battery (the black rectangle in the upper right portion of the image). RDX-3C.56; RX-1824C, Q477. Dr. Singhose disagreed with Gamevice's passageway, and thought that it should look more like the gerrymandered congressional district shown right. CDX-1C.68 (photograph of CPX-21 annotated by Dr. Singhose to show purported passageway); RX-1824C, Q476–77.



But whether the supposed passageway looks like the rectangle Gamevice drew or the gerrymandered congressional district Dr. Singhose suggests, neither are the recited "passageway" for, at least, two independent reasons.



First, neither supposed passageway bears any relationship to the physical structure of the upper frame itself. The claims require that the supposed structural bridge—which Gamevice says is the upper frame—"comprise" or "include" the "passageway." The boxes Gamevice and Dr. Singhose drew are not part of the upper frame and do not describe any structure "include[d]" in the upper frame or of which the upper frame "comprise[s]." RX-1824C, Q479–83; RX-1824C.A, Q481. This is most obviously seen in the "top border" of Dr. Singhose's supposed passageway. Tr. 631:10-17. As shown in RDX-215 (below, RPX-40 with Dr. Singhose's passageway drawn in (red dotted lines)), the location of the top border does not correspond to any physical characteristics of the upper frame. Stern Tr. 631:10-17; RX-1824C, Q479–83; RX-1824C.A, Q481. Instead, the location of that top border depends merely on when one asks Dr. Singhose to locate it, as Dr. Stern identified (at least) two additional top borders suggested by Dr. Singhose and drew those in as well (shown in blue dotted lines). Tr. 632:22–633:10; RDX-215 (photograph of RPX-40); CDX-1C.67 (annotated photographs of CPX-21). Gamevice and Dr. Singhose's identification of the supposed passageway is inconsistent because the upper frame neither "includes" nor "comprises" a "passageway" as the claim requires.

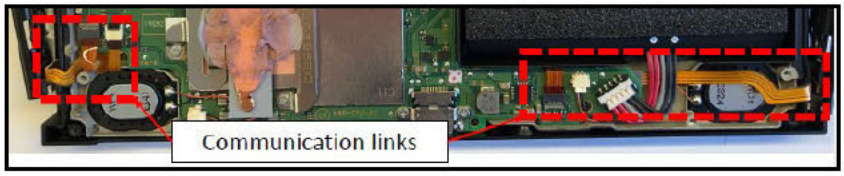


In fact, Gamevice's identified passageway is so disconnected from the physical structure of the upper frame, that, as shown to the right, portions of it are not even within the upper frame—let alone "comprise[d]" by or "include[d]" in the upper frame. RX-1824C, Q477–78; RDX-3C.57 (CDX-1C.68, showing CPX-21). Instead, Gamevice says that the passageway goes *over* the upper frame and extends beyond it. A POSA would not understand the upper frame to "comprise" or "include" a "passageway" that is not even inside of it. RX-1824C, Q479.



The second reason Gamevice's supposed passageway is not the recited "passageway," is because it is undisputed that the

vast majority of what Gamevice says is the passageway neither accommodates nor holds what Gamevice says are the communication links. As discussed above regarding claim construction, Section 9.4, in the 1111 Investigation, the ALJ explicitly noted that the passageway is for "wired communication *between* other components," JX-15.63–64, which is also true here. According to Gamevice the communication links that need to be held or accommodated (depending on construction) by the passageway, are the FPCs from the rails. CX-1C, Q413. But it is undisputed that those FPCs do not pass from one side of the console to the other—*i.e.*, do not go between the rails—or even through the majority of the area Gamevice says is the passageway. Indeed, Dr. Singhose's own demonstratives proves that point. As shown to the right, Dr. Singhose's demonstrative shows the FPCs (in red boxes) terminating on the left and right sides of the device and never entering the majority of any of the so-called passageways identified by Gamevice or Dr. Singhose. CX-1C, Q419; CDX-1C.62 (annotated photograph of CPX-21).



Indeed, not only are the FPCs neither held nor accommodated by the supposed passageway, they could not, even in theory, be held or accommodated by it. Stern Tr. 633:17–634:4; RX-1824C, Q488–92. Dr. Stern identified areas 4 and 5 in RDX-215 (above) that have "computer chips and a board and heat sinks that are on top of [those areas], and [those components] come in direct contact with the lower frame, which goes over the top of [the upper frame]." Tr. 633:17–634:2; RPX-40. "[T]hose areas are," therefore, "choked off completely from the standpoint of running … a wire over them," and do not and cannot accommodate or hold the FPCs from the rails. Stern Tr. 634:3–4; RX-1824C, Q488–492. Thus, not only does the area that Gamevice claims to be the passageway not accommodate or hold FPCs from the rails, it *cannot*, even in theory, accommodate or hold them. Stern Tr. 634:3–4; RX-1824C, Q488–492.

Gamevice responds that—at least for purposes of infringement—a communication wire need not actually run through a space for that space to be the recited "passageway." Tr. 582:6–10 (Gamevice's counsel representing that it "is not contending that the FPCs go from one side of the—from one rail to the other. Their contention is that is not required by the claim limitations."). Instead, according to Gamevice, there is a passageway in the upper frame simply because Dr. Singhose can draw an imaginary box that extends from one rail to the other—even though the imaginary box does not represent any physical structure in the upper frame that accommodates or holds a communication wire, and is filled with other components that would block any such wire. CX-1C, Q443–45; CDX-1C.66–68 (annotated photographs of CPX-21); RX-1824C, Q471–72, 480–81, 488–92; RX-1824C.A, Q481; Stern Tr. 634:3–4.

But the notion that Dr. Singhose can conjure a passageway by drawing an

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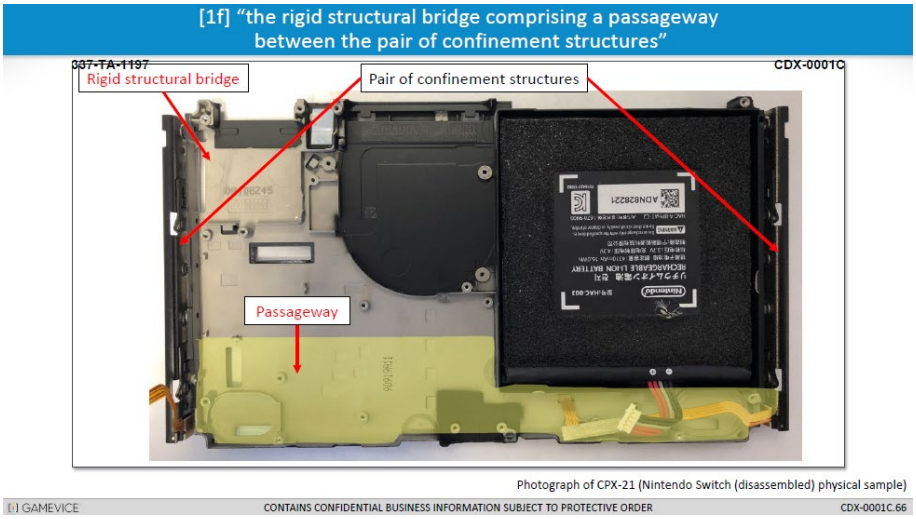
imaginary box in any arbitrary area extending from one side of the device to the other is both nonsensical from the viewpoint of infringement law, and inconsistent with Gamevice's invalidity position. In the context of invalidity, Gamevice argued that the same claim requires a communication wire to run from one confinement structure to the other through the passageway. For instance, Dr. Singhose was shown the "gripping studs" he contended Dr. Cameron identified as the "confinement structures" in the PhoneJoy prior art product. Tr. 843:8–16 (discussing CDX-3). Dr. Singhose confirmed that in his opinion, the "passageway" limitation was not satisfied by the PhoneJoy because "the printed flexible circuit in PhoneJoy does not run from one gripping stud to the other, *as the claim requires*." *Id.*, 843:17–844:8. Thus, Gamevice's position is that for purposes of the prior art, the claim, in fact, requires the communication wire to run from one confinement structure to the other. *SmithKline Diagnostics, Inc. v. Helena Labs. Corp.*, 859 F.2d 878, 882 (Fed. Cir. 1988) ("[T]he claims must be interpreted and given the same meaning for purposes of both validity and infringement analysis.").

Gamevice also says that "cutouts" in the walls of the upper frame supposedly "accommodate" the FPCs from the rails. CX-1C, Q448. But at the hearing, Dr. Stern explained in detail why this is incorrect. Dr. Stern demonstrated that these supposed "cutouts" have nothing whatsoever to do with the FPCs and do not accommodate or hold them. RX-1824C, Q484–87; Tr. 636:21–638:2. Instead, the elevation changes are "necessary to maintain contact [between the lower frame and the internal components] for heat transfer and securing the boards." Tr. 635:11–636:20. They are necessary because "this is a profiled three-dimensional part, [so] the lower housing has to—has to vary its elevation. And, similarly, to maintain a sealed enclosure electronically, the side wall has to—has to vary in order to—to match it." *Id.* Dr. Stern testified that the FPCs actually need to go over the upper *housing* assembly wall, which is higher than the upper *frame*. *Id.*, 634:15–635:7. This is visible in RDX-219 and 220 (above, each showing RPX-85). Thus, the supposed "cutouts" in the upper frame wall have "nothing to do with passing this FPC over because the FPC has to go over the much higher plastic upper housing." Tr. 636:21–638:2.

Resps. Br. at 31-34.

The Staff argues, in part:

Claim 1 of the '393 patent recites a "rigid structural bridge comprising a passageway between the pair of confinement structures." JX-0001 ('393 patent) at cl. 1. Gamevice and the Staff contend that the term "passageway" should be construed as "a space that accommodates a communication wire." JX-0014 (Joint Claim Construction Statement). Nintendo contends that the term should be construed as "a space that holds a communication wire." Resps. P.H. Br. at 87-92. Nintendo argues that the "passageway" limitation is met by the portion of the upper frame assembly marked in yellow below:



CDX-0001 (Singhose Demo.) at 66. The marked portions, however, do not form a passageway between the pair of confinement structures. *See* RX-1824C (Stern RWS) at Q/A 462-502; Resps. P.H. Br. at 87-92. The printed flexible circuits are part of the rails (*i.e.*, the alleged confinement structures) and are run above the upper frame assembly, and not through any passageway that is part of the upper frame assembly. *See id.*

The '393 patent discloses structural bridges with passageways, such the structural bridge shown in Fig. 17, comprising a conduit 328:

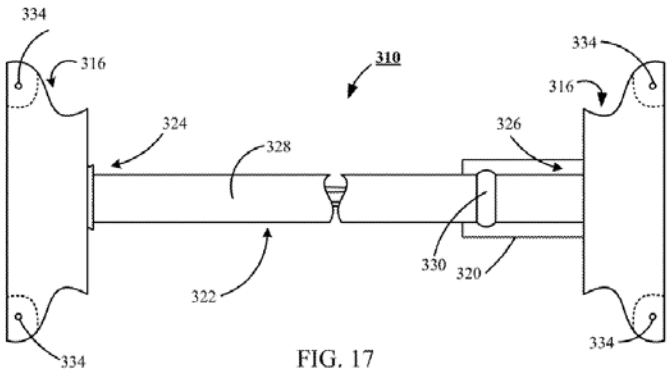


FIG. 17

JX-0001 ('393 patent) at Fig. 17. The '393 patent also discloses structural bridges without any conduit or other passageway, such as the structural bridge shown in Fig. 15:

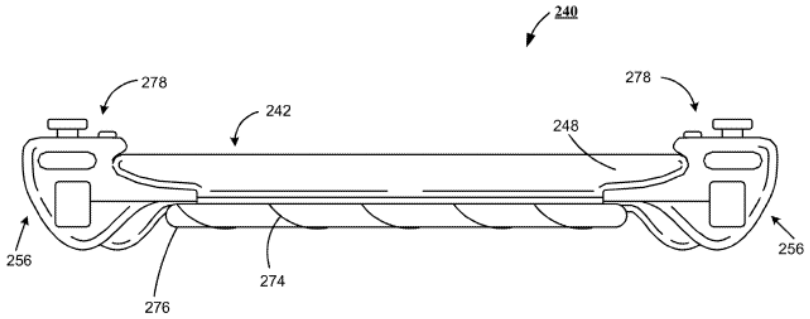


FIG. 15

> *Id.* at Fig. 15. Here, the structural bridge does not provide a passageway, so a signal wire 274 is coupled externally to the structural bridge. *See id.* at Col. 9:4-15. As in the embodiment shown in Fig. 15, the upper frame assembly of the Nintendo Switch Console device does not provide a passageway, so wires must be run externally to the upper frame assembly. *See id.*
>
> Accordingly, the accused Nintendo products do not satisfy the "passageway" limitations of the claims.

Staff Br. at 42-44.

The construction of this claim term was discussed above. The claim term "passageway" is construed to mean "a space that accommodates a communication wire."

As discussed above, one skilled in the art would not understand Gamevice's selected components of the Nintendo Switch console to constitute a device. *See* JX-0001 ('393 patent) at col. 4, lns. 43-45. As with Gamevice's argument regarding the alleged "confinement structures," Gamevice again claims that an internal component of the console, here the upper frame, is the "structural bridge." As Dr. Stern testified, however, "[W]hen the Nintendo Switch, in its fully functional form with all of its parts intact, is considered the 'computing device,' there is no other element that can satisfy the structural bridge limitation." RX-1824C (Stern RWS) at Q/A 293. The component identified by Gamevice and Dr. Singhose as the "structural bridge" is an integral

part of the Nintendo Switch console, and as part of the "computing device" it cannot also satisfy the "structural bridge" limitation. *See id.*

If, however, the upper frame is considered the "structural bridge," separate from the "computing device," the administrative law judge finds that Gamevice has not shown that the upper frame of the Nintendo Switch console comprises a passageway between the pair of confinement structures. Gamevice argues that the portion of the upper frame identified above as the passageway accommodates a flexible printed circuit, which has numerous communication wires. *See* Compl. Br. at 47-48. However, as Dr. Stern testified, the flexible printed circuits ("FPC") exhibited a circuitous route, and "the purported 'structural bridge' includes items that interfere with the FPC," as opposed to accommodating it. RX-1824C (Stern RWS) at Q/A 471-72, 482-83.

Accordingly, it is determined that the Nintendo Switch does not satisfy this claim limitation under the adopted claim construction.

8. the passageway promotes electrical communication between the communication link of a first confinement structure of the pair of confinement structures and the computing device, the passageway further promotes electrical communication between the communication link of a second confinement structure of the pair of confinement structures and the computing device;

The accused Nintendo Switch does not satisfy this claim limitation. *See* RX-1824C (Stern RWS) at Q/A 508.

Gamevice argues, in part:

> The "passageway" limitation is met by the upper frame of the Nintendo Switch console. As shown in CDX-0001C at 66-67, the upper frame has a tray-like structure disposed between the side rails. *See* Stern Tr. 577:7-581:13. The tray-like structure provides a three-dimensional space in the lower portion of the upper frame assembly to meet the "passageway" limitation. The PCBs are located in that

space and the flexible printed circuits from the side rails connect to pin connectors on the PCB, such that the corresponding portion of the upper frame supports and promotes electrical communication between the flexible printed circuits and the PCB. *See* CX-0001C at Q/A 442-445, 448-449, 456; CDX-0001C at 66-68; Stern Tr. 582:18-587:11; RX-0994C, [ ]

Under Gamevice's and OUII's proposed construction, the portion of the upper frame identified above as the passageway accommodates a flexible printed circuit, [ ] *See* CX-0001C at Q/A 446-447. Under Nintendo's proposed construction, the portion of the upper frame identified above as the passageway holds the flexible printed circuits because the flexible printed circuits are not free to move within the passageway, but rather are restricted in their movement. *See id. at* Q/A 455-456; CDX-0001 at 68.

Contrary to OUII's position, the passageway identified satisfies this claimed limitation because it is not required to internal to the structural bridge, just as a freeway under the open skies is as much a passageway for cars as one inside a tunnel. Contrary to Nintendo's position, the passageway identified above is well-defined. *See* CX-0001C at Q/A 451; CDX-0001C at 66-68. Further, as Dr. Stern agreed, the claims do not require that the two "confinement structures" must be in communication with each other. *See* CX-0001C at Q/A 451; Stern Tr. 572:20-574:2. Instead, the claim only requires that the passageway is located anywhere between the two confinement structures. *See id*. Moreover, the claims do not require that the passageway be a straight path from one "confinement structure" to the other. *See id. at* Q/A 452, 460-461. In this regard, Nintendo improperly reads in limitations from preferred specification embodiments into the claims. *See id*.; Stern Tr. 574:4-576:6. Further, the claims do not require the passageway to have nothing but a communication wire. *See id*. Also, the fact that the identified passageway may include an area for a heat sink where thermal putty is applied is irrelevant because the identified passageway meets the claimed limitations. *See id. at* Q/A 453-454. Moreover, the claims do not require that the entire area of the "passageway" must be capable of accommodating a communication wire. *See id. at* Q/A 454, 457-459. Further, Nintendo incorrectly relies on a proposed construction for this claim term from the 1111 Investigation, which none of the parties have proposed in this investigation. *See id. at* Q/A 459-461.

Compl. Br. at 47-49.

Nintendo argues, in part:

Gamevice presented no evidence that the imaginary box drawn by Dr. Singhose as a supposed passageway "promotes electrical communication" as further required by both claims 1 and 17. The entirety of Gamevice's support on this point is the following from Dr. Singhose's written direct testimony:

> The PCBs are located in that space and the flexible printed circuits from the side rails connect to the PCB, such that the corresponding portion of the upper frame supports and promotes electrical communication between the flexible printed circuits and the PCB. This electrical communication is achieved through the flexible printed circuits connecting to the pin connectors on the PCB. CX-1C, Q443.
>
> But this is *ipse dixit*—Dr. Singhose simply says the limitation is met—and is neither evidence nor analysis. *Kim*, 465 F.3d at 1320. Gamevice's failure to muster evidence that its invented passageway "promotes electrical communication" limitation is unsurprising: Since there is no passageway in the upper frame, there is nothing that can promote electrical communication. RX-1824C, Q505–08. Indeed, the negative space that Gamevice identifies as a passageway would have the opposite effect, and could not help bring electrical communication into being, which was what the parties understood "promotes electrical communication" to mean in the 1111 Investigation. *Id.*, Q508–09. This is so because the negative space around a component acts as an insulator, preventing electrical communication. *Id.* Nor can it be that the passageway "promotes electrical communication" simply by allowing a wire to exist in a small portion of the alleged space. *Id.*, Q510–11. Such an understanding of the limitation effectively writes it out of the claim. *Id*., Q510–11. Since Gamevice has not—because it cannot—offered any competent evidence that the supposed passageway in the upper frame promotes electrical communication, Gamevice has failed to demonstrate the "passageway" limitation for this additional and independent reason.

Resps. Br. at 60-61.

The Staff argues, in part:

> Gamevice contends, without explanation, that alleged passageway "promotes electrical communication." *See* Compl. P.H. Br. at 47. For example, Gamevice states that the "[t]he PCBs are located in that space and the flexible printed circuits from the side rails connect to pin connectors on the PCB, such that the corresponding portion of the upper frame supports and promotes electrical communication between the flexible printed circuits and the PCB. *See* CX-0001C at Q/A 442-445, 448-449, 456; CDX-0001C at 66-68." Conversely, Nintendo argues that there is no evidence that this limitation is satisfied by the accused products. *See* Resps. P.H. Br. at 92-94. . . .
>
> Accordingly, the accused Nintendo products do not include a passageway that "promotes electrical communication" as recited by the claims.

Staff Br. at 45.

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The construction of this claim term was discussed above. The claim term "passageway" is construed to mean "a space that accommodates a communication wire."

Gamevice argues that the upper frame has a tray-like structure disposed between the side rails, and the PCBs are located in that space and the flexible printed circuits from the side rails connect to pin connectors on the PCB, such that the corresponding portion of the upper frame supports and promotes electrical communication between the flexible printed circuits and the PCB. *See* Compl. Br. at 47-48. However, as there is no passageway in the upper frame, there is nothing that can promote electrical communication. *See* RX-1824C (Stern RWS) at Q/A 505-08. Indeed, the negative space that Gamevice identifies as a passageway acts as an insulator, preventing electrical communication. *See id.* at Q/A 508-09.

As Dr. Stern testified, "Even if Dr. Singhose identified an area that was considered a 'passageway'—and he has not and cannot—there is nothing about that area that 'promotes electrical communication' as required by claims 1 and 17." RX-1824C (Stern RWS) at Q/A 504. One of ordinary skill in the art would not understand that the negative space Dr. Singhose identifies as the "passageway" promotes electrical communication between the rails and the computing device because the identified "passageway" does not enhance or otherwise promote electrical communication. *See id.* at Q/A 508.

Accordingly, it is determined that the Nintendo Switch does not satisfy this claim limitation under the adopted claim construction.

9. a pair of electronic game control modules,

The Nintendo Switch includes a pair of electronic game control modules. *See* CX-0001C (Singhose DWS) at Q/A 462-65. Nintendo does not contest that the Nintendo Switch includes this limitation. *See* Resps. Br. at 46-99.

10. each electronic game control module of the pair of electronic game control modules is secured to and interacts with a corresponding confinement structure of the pair of confinement structures;

The Nintendo Switch includes a pair of electronic game control modules that is secured to and interacts with a corresponding confinement structure of the pair of confinement structures. *See* CX-0001C (Singhose DWS) at Q/A 466-75. Nintendo does not contest that the Nintendo Switch includes this limitation. *See* Resps. Br. at 46-99.

11. each electronic game control module in electronic communication with the communication link of its corresponding confinement structure,

The administrative law judge finds that the Nintendo Switch does not include this feature of claim 1. *See* RX-1824C (Stern RWS) at Q/A 528, 530.

Gamevice argues, in part:

> In the Nintendo Switch, each Joy-Con is in electronic communication with the flexible printed circuit of its corresponding side rail. The side rails have connectors that engage with the connectors on the Joy-Cons to send signals containing electronic information (*e.g.*, bits or bytes of digital information) through the flexible printed circuits [ ] *See* CX-0001C at Q/A 476-477; CDX-0001C at 73-74; CX-0120 at 19; Stern Tr. 591:17-596:4; CX-0141C at 1, 3-4; CX-0153C at 29-30; CDX-0004.15; RX-0038C at 181. Contrary to Nintendo's position, the claims do not require "smart" communication or preclude the "communication link" from being a "dumb" wire. *See* CX-0001C at Q/A 478-479.

Compl. Br. at 50.

Nintendo argues, in part:

> The claims recite two different stages in the "electronic communication" chain between the controllers and the recited "computing device," and Gamevice has not—and cannot—prove either stage. Claims 1–4, 6–7, and 18 recite the first stage in the chain as the "game control modules" or "control modules" in "electronic communication" with the "communication link[s]" of the "confinement structures." Claims 1–4, 6–7, and 17–18 recite the second stage in the chain as the "communication link[s]" of the "confinement structures" are in "electronic communication" with the recited "computing device" (claims 1–4, 6–7) or the

"central processing unit" of the recited "computing device" (claim 17, depending from claim 16). In sum, the claims require two stages: (1) "electronic communication" between the "modules" and the "communication link[s]" of the "confinement structures"; and (2) "electronic communication" between the "communication link[s]" of the "confinement structures" and the "computing device" (or CPU of the "computing device"). The claims *do not* recite "electronic communication" between the "modules" and the "computing device." This is significant because the only evidence Gamevice proffers is the undisputed fact that the Joy-Con are in direct electronic communication with the Nintendo Switch console. But this undisputed fact does not meet this limitation.

No party requested a construction of "electronic communication." But the claims distinguish between the recited terms "electronic communication" and "electrical communication." The claims recite that the "passageway" "promotes electrical communication," while the modules are in "electronic communication" with the "communication link[s]" and the "communication link[s]" are in "electronic communication" with the "computing device" (or CPU of the "computing device"). JX-1, claims 1, 17, 18; RX-1824C, Q526. Thus, "*electronic* communication" does not mean the same thing as "electrical communication." *Amgen*, 923 F.3d at 1031 ("[D]ifferent claim terms are presumed to have different meanings." (citation omitted)).

A skilled artisan would understand the difference between electrical communication, on the one hand, and *electronic* communication on the other. To a skilled artisan, electrical communication occurs whenever there is a flow of electricity. When one plugs a lamp into a wall socket or a network cable (such as an ethernet cable with an RJ45 connector) into a wall terminal, there is the flow of electrons, and, therefore, electrical communication. RX-1824C, Q525. But *electronic* communication is different and requires more than the mere flow of electrons. *Id.* For a POSA, *electronic* communication requires components that exchange information, not just electrons. *Id.* So, a network card in a computer may be said to be in *electronic* communication with the server with which it is communicating because each end of that communication "understands" and can act on the information being transmitted and received. *Id.* But for a POSA, the cables carrying those communications, such as an ethernet cable running from the wall to the computer for example, are only in electrical communication, not *electronic* communication. *Id.*

For the first stage in the chain—the "electronic communication" between the "modules" and the "communication link"—Gamevice contends that the Joy-Con are the recited "electronic game control modules," or "control modules," and that the FPCs in the rails are the recited "communication link[s]." CX-1C, Q476, 743. Yet, Gamevice offers no evidence that the Joy-Con are in *electronic*—as opposed to electrical—communication with the FPCs. RX-1824C, Q526. Instead, the entirety of Gamevice's evidence on this point is Dr. Singhose's assertion that "the side rails have connectors that engage with the connectors on the Joy-Con to

send signals containing information through the flexible printed circuits." CX-1C, Q476. But the claims require more than just "send[ing] signals" via the FPCs, as that is merely electrical communication, not the required *electronic* communication. RX-1824C, Q521–25.

Gamevice offers no evidence of *electronic* communication between the Joy-Con and the FPCs because there is none. While the Joy-Con indisputably are in *electronic* communication with the Nintendo Switch console, *id.*, Q528, they are not in *electronic* communication with the FPCs attached to the rails. Instead, the connection between the Joy-Con and the FPCs establishes merely electrical communication—a pathway for the flow of electrons, not materially different from the RJ45 connector of the network cable. *Id.* Thus, this limitation is not met.

For the second stage—"electronic communication" between the "communication link[s]" and the "computing device" (or CPU of the "computing device")—Gamevice points to the other end of the FPCs from the rails where they terminate on the main printed circuit board. CX-1C, Q415, 727. But Gamevice offers no competent evidence that there is *electronic* communication between the FPCs and the circuit board, relying instead on conclusions from Dr. Singhose that the signals are *electronic* communication because he says they are. CX-1C, Q415–17, 419–22. *Kim*, 465 F.3d at 1320 (mere conclusions are not evidence). And, in fact, all Gamevice can show is that [redacted] RX-1824C, Q774–77. Again, there is indisputably electronic communication between the *Joy-Con* and the *console*, but that is not what the claim requires. Instead, the claim requires *electronic* communication between the *communication links themselves* and the *computing device*, and Gamevice offers no evidence establishing this. *Id.*

Late in the game, Gamevice recognized its failure of proof on this second link—although it never recognized its failure on the first link—and attempted to shoehorn testimony regarding [redacted] as a communication protocol. But the ALJ excluded that late testimony as not disclosed. Order No. 11 at 2 (granting Nintendo's motion in limine regarding CX-1C, Q418). While Gamevice attempted to revive this argument at the hearing through cross-examination of Dr. Stern, Gamevice failed because Dr. Stern confirmed that the only communication between the FPCs and the main circuit board is electrical communication, and not *electronic* communication. Tr. 589:1–24, 596:5–8. Therefore, Dr. Stern's testimony stands unrebutted as the only admitted testimony from the perspective of a POSA, and that evidence unequivocally shows that there is no *electronic* communication between the FPCs and the main circuit board.
Resps. Br. at 80-83.

The Staff argues, in part:

> Gamevice has drawn any meaningful distinction between the terms "electrical communication" and "electronic communication," nor has Gamevice offered any basis to overcome the presumption that those terms have different meanings. It appears to the Staff that the electronic game control modules are in electrical communication, but not electronic communication, with the communication link for the reasons set forth by Nintendo. *See* Resps. P.H. Br. at 95; RX-1824C (Stern RWS) at Q/A 521-530. Accordingly, the accused Nintendo products do not satisfy the "electronic communication" limitation of claim 1.

Staff Br. at 48.

As an initial matter, no party requested a construction of "electronic communication." *See* JX-0014. However, the claims distinguish between the recited terms "electronic communication" and "electrical communication." *See* JX-0001 ('393 patent) at claim 1. Inasmuch as claim 1 uses two different terms, they are presumed to have different meanings. *Helmsderfer v. Bobrick Washroom Equipment, Inc.*, 527 F.3d 1379 (Fed. Cir. 2008) ("Our precedent instructs that different claim terms are presumed to have different meanings.") (citing *Applied Med. Res. Corp. v. U.S. Surgical Corp*., 448 F.3d 1324, 1333 n. 3 (Fed. Cir. 2006) ("[T]he use of two terms in a claim requires that they connote different meanings...."); *CAE Screenplates Inc. v. Heinrich Fiedler GmbH*, 224 F.3d 1308, 1317 (Fed. Cir. 2000) ("In the absence of evidence to the contrary, we must presume that the use of these different terms in the claims connotes different meanings.").

Gamevice fails to draw any meaningful distinction between "electronic communication" and "electrical communication." *See* Compl. Br. at 45; CX-0001C (Singhose WS) at Q/A 413-22. Dr. Singhose appears to equate electrical and electronic communication. *See id.* To show "electrical communication," Dr. Singhose testified that "the upper frame supports and promotes electrical communication through the flexible printed circuits and the PCB. This electrical communication is achieved through the flexible printed circuits connecting the pin

connectors on the PCB." CX-0001C (Singhose DWS) at Q/A 443. To show "electronic communication," he identified "[t]he flexible printed circuits, which [he] referred to as the communication links connect to the PCB, to enable electronic communication with the computing device." *Id.* at Q/A 415. Gamevice thus relies upon the same flexible printed circuits for both "electronic communication" and "electrical communication" without any meaningful basis to overcome the presumption that these terms connote different meanings.

The administrative law judge finds that there is a difference between electrical communication and electronic communication. As Dr. Stern testified, electronic communication requires components that exchange information, not just electrons. *Id.* at Q/A 525. A network card in a computer may be said to be in electronic communication with the server with which it is communicating because each end of that communication "understands" and can act on the information being transmitted and received. *Id.* To one of ordinary skill in the art, the cables carrying those communications, such as an ethernet cable running from the wall to the computer for example, are only in electrical communication, not electronic communication. *See id.*

Nintendo contends that a person of skill in the art would recognize a difference between electrical communication and electronic communications. Resps. Br. at 81; RX-1824C (Stern RWS) at Q/A 521-30. According to Dr. Stern, Gamevice has not shown that the Joy-Con Controllers are in "electronic communication" with the flexible printed circuits of the rails. *Id.* at Q/A 530. As Dr. Stern testified, one of ordinary skill in the art understands that "'electronic communication' uses electronic circuits to transmit, process and receive information." *Id.* at Q/A 525. In contrast, electrical communication is "something more akin to what happens when you plug a lamp into a wall socket." *Id.*

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Gamevice argues that the Nintendo Switch's "side rails have connectors that engage with the connectors on the Joy-Cons to send signals containing electronic information (*e.g.*, bits or bytes of digital information) through the flexible printed circuits [ ] Compl. Br. at 50. However, while the Joy-Con are in electronic communication with the Nintendo Switch console, RX-1824C (Stern RWS) at Q/A 528, Gamevice has not demonstrated that they are in electronic communication with the FPCs attached to the rails. [ ] *Id.*

Accordingly, the accused Nintendo products do not satisfy the above-recited limitation of claim 1.

12. wherein each electronic game control module is a separate and distinct structure from each of their corresponding confinement structures, forming no structural portion of their corresponding confinement structures,

The Nintendo Switch includes a pair of electronic game control modules, where each electronic game control module is a separate and distinct structure from each of their corresponding confinement structures, forming no structural portion of their corresponding confinement structures. *See* CX-0001C (Singhose DWS) at Q/A 480-82. Nintendo does not contest that the Nintendo Switch includes this limitation. *See* Resps. Br. at 46-99.

13. in which each of the pair of confinement structures are separate and distinct structures from the structural bridge, forming no structural portion of the structural bridge.

The accused Nintendo Switch does not satisfy this claim limitation. *See* RX-1824C (Stern RWS) at Q/A 447-48.

Gamevice argues, in part:

> In the Nintendo Switch, each of the pair of side rails are separate and distinct structures from the upper frame, forming no structural portion of the upper frame. *See* CX-0001C at Q/A 483-484; CDX-0001C at 76. Nintendo's manual identifies them as separate and distinct, they are made of different materials, they serve different functions, and the screws attaching them together can be removed. *See* Stern Tr. 598:11-599:25; RX-0994C at 28. Contrary to Nintendo's position, even if the side rails are not intended to be removed during normal use, they can be easily separated from the upper frame by unscrewing the screws securing them together. *See* CX-001C at Q/A 485-486; Stern Tr. 599:14-25. Further, Nintendo improperly imports numerous limitations into the claims. For example, the claims do not include any limitations related to an intended use or a normal use. *See id*. Nor do they require that the claim term "separate and distinct" to mean removable or swappable, or that the system should remain fully functional upon disassembly. *See id*. Moreover, the prosecution history of the '119 patent directed to a different limitation is not relevant to the issues here, and in any event does not support introducing any of the limitations into the claim that Nintendo proposes. *See id*. Moreover, considering the side rails of the Nintendo Switch as separate and distinct structures from the upper frame is in no way inconsistent with Gamevice's positions with respect to claim 12 because different Accused Products are mapped to claims 1 and 12, and the limitations of these claims are also different. *See id. at* Q/A 488.

Compl. Br. at 50-51.

Nintendo argues, in part:

> Claims 1–4, 6–7, and 17–18 require that the "confinement structures" be "separate and distinct structures from" the "structural bridge" and form "no structural portion" of the "structural bridge." Gamevice failed to demonstrate either portion of the limitation.
>
> * * *
>
> Gamevice's position on the "separate and distinct" limitation is inconsistent both with its use in the specification and with Gamevice's own position on the "contact adjacency" limitation for claim 12. As Dr. Stern described, the rails of the Switch console are almost identical to the rails of the Joy-Con Grip and both are attached with similar screws. RX-1824C, Q449–51. Yet, for claim 1, Gamevice says the rails are separate and distinct and form no structural part of the upper frame (alleged structural bridge), CX-1C, Q615, while at the same time, Gamevice contends that for claim 12, the materially identical rails are *part of* the purported structural bridge of the Joy-Con Grip. *Id.*, Q603–15.
>
> Dr. Singhose tried to explain away his inconsistency by pointing to a supposed example of a "different mechanical configuration" between the Nintendo

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Switch console and the Joy-Con Grip. *Id.*, Q615. According to Dr. Singhose, the rails "are directly attached" to the purported structural bridge of the Joy-Con Grip. *Id.* By contrast, "the side tabs of the back cover of the console are [allegedly] disposed between the upper frame and the side rails, so they are not in 'contact adjacency'" (*i.e.*, they are not "next to and touching" each other, JX-14.2). *Id.* And this supposed lack of "contact adjacency" between the rails and the upper frame in the console allegedly means that the rails are separate and distinct from and form no structural portion of the upper frame, thereby distinguishing the rails of the console from the rails of the Joy-Con Grip. Tr. 335:23–336:7. Except that, once again, Dr. Singhose was factually incorrect—the rails, do, in fact, directly contact the upper frame: Dr. Stern proved it at the hearing.

Using a partially disassembled Switch console, Dr. Stern showed that the "rail directly contacts the boss …, which is part of the upper frame." Tr. 638:23–640:18; RPX-39. This direct contact can be seen in two demonstratives created during the hearing and shown below. RDX-217 (RPX-39); RDX-218 (RPX-39). As described by Dr. Stern at the hearing: "[I]f you look at it right here (indicating [*see* RDX-217, below left]), and I close it up, you can see, especially if you look at the silver boss right here (indicating [*see* RDX-218, below right]), it comes in direct contact with the upper frame." Tr. 640:4–11.





Contrary to Dr. Singhose's baseless assertions, the rails are not separate and distinct from, and do form a structural portion of, the upper frame assembly (which could have been confirmed by evaluating the accused product), thereby precluding infringement of claims 1–4, 6–7, and 17–18. RX-1824C, Q439–61.

Resps. Br. at 77-80.

The Staff argues, in part:

Claim 1 of the '393 patent recites the following limitation: "each of the pair of confinement structures are separate and distinct structures from the structural bridge, forming no structural portion of the structural bridge." JX-0001 ('393 patent) at cl. 1. Gamevice contends that the Nintendo Switch Console's rails are separate and distinct from its upper frame assembly. Compl. P.H. Br. at 49-50; CX-

> 0001C (Singhose WS) at Q/A 483-484. According to Prof. Singhose, the rails can be easily separated from the upper frame assembly by unscrewing the screws securing them together. *Id.* Conversely, Nintendo contends that the rails of the Switch Console device are not separate and distinct because they are permanent components of the device and are not intended to be removed. *See* Resps. P.H. Br. at 83-86.
>
> As discussed above, the accused Nintendo products do not satisfy the "confinement structures" limitation. If there are no "confinement structures," they cannot logically satisfy the additional requirement that they be "separate and distinct." Accordingly, for the reasons discussed above with respect to "confinement structures," the Staff submits that the accused Nintendo products do not have "confinement structures [that] are separate and distinct" as required by claim 1.

Staff Br. at 48.

The construction of these claim terms was discussed above. The claim term "confinement structures" is construed to mean "components that hold a computing device," and the claim term "structural bridge" is construed to mean "a physical apparatus that connects other components."

Regarding "separate and distinct" structures, the specification recites: "Preferably, the input module apertures 224, are adjacent each of the at least two opposing sides of the plurality of sides 304, of the computing device 302, and wherein the input device 356, or such as 120 of Fig. 11, or 256 of Fig. 13, is a separate and distinct structure from the communication port 310, forming no structural portion of the communication port." JX-0001 ('393 patent) at col. 9, lns. 47-53. In this context the specification is describing modules, such as joysticks, keyboards, etc., that, in one embodiment, may be removable. *See id.* at col. 5, lns. 6-12, col. 9, lns. 47-53, Fig. 11; RX-1824C (Stern RWS) at Q/A 441-42.

Under the adopted constructions, the Nintendo Switch console's rails do not satisfy the limitation because the rails are part of the computing device, and the Nintendo Switch's upper

frame is also part of the computing device. Therefore, the Nintendo Switch comprises neither a pair of confinement structures nor a structural bridge, separate and apart from the computing device.

If, however, the rails are considered "confinement structures," separate from the "computing device," and the upper frame is considered the "structural bridge," separate from the "computing device," the administrative law judge finds that Gamevice has not shown that each of the pair of confinement structures are separate and distinct structures from the structural bridge, forming no structural portion of the structural bridge. In contrast to the structures described in the '393 patent as "separate and distinct," the rails are a permanent part of the Nintendo Switch console and a permanent part of the upper frame assembly to which they are attached. *See* RX-1824C (Stern RWS) at Q/A 442, 451. Once attached, they are not intended to be removed during normal use of the Nintendo Switch console, as one of ordinary skill would understand is required for "separate and distinct" components in the context of the '393 patent. *Id.* Indeed, the rails are directly attached to the upper frame assembly, and once assembled they are no longer "separate and distinct" from, and they form a "structural portion of," the upper frame assembly. *Id.* at Q/A 447-48. The rails are attached to the upper frame assembly by a series of screws, each tightened to a precise level of torque. *Id.* at Q/A 405; RX-0994C at 28, 40. One of ordinary skill in the art would understand that when one component is fixedly attached to another component, as the rails are to the upper frame assembly, the structural properties of both components are affected. RX-1824C (Stern RWS) at Q/A 448. The rails, when attached to the upper frame assembly, form a structural portion of the upper frame assembly. *Id*.

Accordingly, it is determined that the Nintendo Switch does not satisfy this claim limitation under the adopted claim construction.

* * *

It is therefore determined that the accused Nintendo Switch does not infringe asserted independent claim 1 of the ’393 patent.

B. Claim 2

The Nintendo Switch is accused of infringing dependent claim 2 of the ’393 patent.

a. The combination of claim 1,

As discussed above, the accused Nintendo Switch does not satisfy all limitations of independent claim 1.

b. in which the rigid structural bridge supports electronics associated with the computing device.

As discussed above, one skilled in the art would not understand Gamevice’s selected components of the Nintendo Switch console to constitute a device. *See* JX-0001 (’393 patent) at col. 4, lns. 43-45. Gamevice claims that an internal component of the console, here the upper frame, is the “structural bridge.” As Dr. Stern testified, however, “[W]hen the Nintendo Switch, in its fully functional form with all of its parts intact, is considered the ‘computing device,’ there is no other element that can satisfy the structural bridge limitation.” RX-1824C (Stern RWS) at Q/A 293. The component identified by Gamevice and Dr. Singhose as the “structural bridge” is an integral part of the Nintendo Switch console, and as part of the “computing device” it cannot also satisfy the “structural bridge” limitation. *See id.*

If, however, the upper frame is considered the “structural bridge,” separate from the “computing device,” the administrative law judge finds that Gamevice has shown that the upper frame in the Nintendo Switch supports electronics associated with the computing device. Specifically, the PCBs, which house various electronics, sit on top of the upper frame, such that

the upper frame supports the electronics associated with the computing device. *See* CX-0001C (Singhose DWS) at Q/A 489-92.

Accordingly, it is determined that the Nintendo Switch does not satisfy this claim limitation under the adopted claim construction.

* * *

It is therefore determined that the accused Nintendo Switch does not infringe asserted dependent claim 2 of the '393 patent.

C. Claim 3

The Nintendo Switch is accused of infringing dependent claim 3 of the '393 patent.

1. The combination of claim 2,

As discussed above, the accused Nintendo Switch does not satisfy all limitations of dependent claim 2, or all limitations of independent claim 1, upon which claim 2 depends.

2. in which the computing device further comprising a back, the back provides an internal surface, an external surface and cooperates with the at least two opposing sides of the computing device.

The Nintendo Switch further comprises a back, the back provides an internal surface, an external surface and cooperates with the at least two opposing sides of the computing device. *See* CX-0001C (Singhose DWS) at Q/A 495-500. Nintendo does not contest that the Nintendo Switch includes this limitation. *See* Resps. Br. at 46-99.

* * *

It is therefore determined that the accused Nintendo Switch does not infringe asserted dependent claim 3 of the '393 patent.

D. Claim 4

The Nintendo Switch is accused of infringing dependent claim 4 of the '393 patent.

1. The combination of claim 3,

As discussed above, the accused Nintendo Switch does not satisfy all limitations of dependent claim 3, or all limitations of dependent claim 2 or independent claim 1, upon which claim 2 depends.

2. in which the rigid structural bridge cooperates with the back of the computing device.

As discussed above, one skilled in the art would not understand Gamevice's selected components of the Nintendo Switch console to constitute a device. *See* JX-0001 ('393 patent) at col. 4, lns. 43-45. Gamevice argues that an internal component of the console, here the upper frame, is the "structural bridge." As Dr. Stern testified, however, "[W]hen the Nintendo Switch, in its fully functional form with all of its parts intact, is considered the 'computing device,' there is no other element that can satisfy the structural bridge limitation." RX-1824C (Stern RWS) at Q/A 293. The component identified by Gamevice and Dr. Singhose as the "structural bridge" is an integral part of the Nintendo Switch console, and as part of the "computing device" it cannot also satisfy the "structural bridge" limitation. *See id.*

If, however, the upper frame is considered the "structural bridge," separate from the "computing device," the administrative law judge finds that Gamevice has shown that the Nintendo Switch's upper frame cooperates with the back cover, via a screw going through the threaded holes in the side tabs/flanges of the back cover and the upper frame. *See* CX-0001C (Singhose DWS) at Q/A 505-08.

Accordingly, it is determined that the Nintendo Switch does not satisfy this claim limitation under the adopted claim construction.

* * *

It is therefore determined that the accused Nintendo Switch does not infringe asserted dependent claim 4 of the '393 patent.

E. Claim 6

The Nintendo Switch is accused of infringing dependent claim 6 of the '393 patent.

1. The combination of claim 4,

As discussed above, the accused Nintendo Switch does not satisfy all limitations of dependent claim 4, or all limitations of dependent claims 3 or 2, or independent claim 1, upon which claim 2 depends.

> **2. in which the computing device comprises an electronic display screen, and wherein at least one electronic game control module of the pair of electronic game control modules passes signals through its corresponding communication link to the computing device, the signals passed to the computing device controlling images displayed on the electronic display screen of the computing device.**

The Nintendo Switch comprises an electronic display screen, and wherein at least one electronic game control module of the pair of electronic game control modules passes signals through its corresponding communication link to the computing device, the signals passed to the computing device controlling images displayed on the electronic display screen of the computing device. *See* CX-0001C (Singhose DWS) at Q/A 517-29. Nintendo does not contest that the Nintendo Switch includes this limitation. *See* Resps. Br. at 46-99.

* * *

It is therefore determined that the accused Nintendo Switch does not infringe asserted dependent claim 6 of the '393 patent.

F. Claim 7

The Nintendo Switch is accused of infringing dependent claim 7 of the '393 patent.

1. The combination of claim 2,

As discussed above, the accused Nintendo Switch does not satisfy all limitations of dependent claim 2, or all limitations of independent claim 1, upon which claim 2 depends.

2. in which the electronics supported by the rigid structural bridge is a communication module associated with the computing device.

As discussed above, one skilled in the art would not understand Gamevice's selected components of the Nintendo Switch console to constitute a device. *See* JX-0001 ('393 patent) at col. 4, lns. 43-45. Gamevice claims that an internal component of the console, here the upper frame, is the "structural bridge." As Dr. Stern testified, however, "[W]hen the Nintendo Switch, in its fully functional form with all of its parts intact, is considered the 'computing device,' there is no other element that can satisfy the structural bridge limitation." RX-1824C (Stern RWS) at Q/A 293. The component identified by Gamevice and Dr. Singhose as the "structural bridge" is an integral part of the Nintendo Switch console, and as part of the "computing device" it cannot also satisfy the "structural bridge" limitation. *See id.*

If, however, the upper frame is considered the "structural bridge," separate from the "computing device," the administrative law judge finds that Gamevice has shown that the electronics supported by the Nintendo Switch's upper frame is a communication module associated with the computing device. The communication module includes [[redacted]] *See* CX-0001C (Singhose DWS) at Q/A 530-34.

Accordingly, it is determined that the Nintendo Switch does not satisfy this claim limitation under the adopted claim construction.

* * *

It is therefore determined that the accused Nintendo Switch does not infringe asserted dependent claim 7 of the '393 patent.

G. Claim 8

The Nintendo Switch is accused of infringing independent claim 8 of the '393 patent.

1. A combination comprising:

The Nintendo Switch constitutes "a combination." See CX-0001C (Singhose DWS) Q/A 337-42. Nintendo does not contest that the Nintendo Switch satisfies this limitation. *See* Resps. Br. at 46-47.

2. a structural bridge, the structural bridge having a first end associated with a first electronic game control module of a pair of electronic game control modules and a second end associated with a second electronic game control module of the pair of electronic game control modules,

The construction of this claim term was discussed above. The claim term "structural bridge" is construed to mean "a physical apparatus that connects other components."

As discussed above, one skilled in the art would not understand Gamevice's selected components of the Nintendo Switch console to constitute a device. *See* JX-0001 ('393 patent) at col. 4, lns. 43-45. Gamevice claims that an internal component of the console, here the upper frame, is the "structural bridge." As Dr. Stern testified, however, "[W]hen the Nintendo Switch, in its fully functional form with all of its parts intact, is considered the 'computing device,' there is no other element that can satisfy the structural bridge limitation." RX-1824C (Stern RWS) at Q/A 293. The component identified by Gamevice and Dr. Singhose as the "structural bridge" is an integral part of the Nintendo Switch console, and as part of the "computing device" it cannot also satisfy the "structural bridge" limitation. *See id.*

If, however, the upper frame is considered the "structural bridge," separate from the "computing device," the administrative law judge finds that Gamevice has shown that the Nintendo Switch has a left and right side, and those sides are associated with the left and right controllers by their physical locations. *See* CX-0001C (Singhose DWS) at Q/A 545-46.

Accordingly, it is determined that the Nintendo Switch does not satisfy this claim limitation under the adopted claim construction.

3. the structural bridge configured for adaptation to a computing device,

The construction of this claim term was discussed above. The claim term "the structural bridge configured for adaptation to a computing device" means "the structural bridge is adjustable to accommodate a length of a computing device."

As discussed above, one skilled in the art would not understand Gamevice's selected components of the Nintendo Switch console to constitute a device. *See* JX-0001 ('393 patent) at col. 4, lns. 43-45. Gamevice claims that an internal component of the console, here the upper frame, is the "structural bridge." As Dr. Stern testified, however, "[W]hen the Nintendo Switch, in its fully functional form with all of its parts intact, is considered the 'computing device,' there is no other element that can satisfy the structural bridge limitation." RX-1824C (Stern RWS) at Q/A 293. The component identified by Gamevice and Dr. Singhose as the "structural bridge" is an integral part of the Nintendo Switch console, and as part of the "computing device" it cannot also satisfy the "structural bridge" limitation. *See id.*

If, however, the upper frame is considered the "structural bridge," separate from the "computing device," the administrative law judge finds that Gamevice has not shown that the upper frame of the Nintendo Switch is adjustable to accommodate a length of a computing

device. *See* RX-1824C (Stern RWS) at Q/A 339-64. As Dr. Stern testified, "Even if the upper frame assembly is considered to be a 'structural bridge,' . . . the upper frame assembly is not adjustable to accommodate a length of a computing device." *Id.* at Q/A 351. The structure identified by Dr. Singhose is fixed in shape, and cannot adapt in any way, shape, or form. *See id.* The identified structures are thus not "configured for adaptation," as claim 8 requires. *See id.* at Q/A 339-64.

If, however, the phrase "the structural bridge configured for adaptation to a computing device" is construed according to Gamevice's construction to mean "the structural bridge configured to accommodate a length of a computing device," then the upper frame meets this limitation because it is designed to fit with the shape of the back cover of the Switch console, which is part of the computing device. *See* CX-0001C (Singhose DWS) at Q/A 552-55.

Accordingly, it is determined that the Nintendo Switch does not satisfy this claim limitation under the adopted claim construction.

4. the computing device having a length greater than its width, the structural bridge accommodates the length of the computing device,

The Nintendo Switch includes a computing device having a length greater than its width. *See* CX-0001C (Singhose DWS) at Q/A 565. However, the component identified by Gamevice and Dr. Singhose as the "structural bridge" is an integral part of the Nintendo Switch console device, and as part of the "computing device" it cannot also satisfy the "structural bridge" limitation. *See* RX-1824C (Stern RWS) at Q/A 293.

If, however, the upper frame is considered the "structural bridge," separate from the "computing device," the administrative law judge finds that Gamevice has shown that the structural bridge accommodates the length of the computing device. *See* CX-0001C (Singhose

DWS) at Q/A 565. As Dr. Singhose testified, "The computing device of the Nintendo Switch has a length greater than its width, and the upper frame accommodates the length of the computing device." *Id.*

Accordingly, it is determined that the Nintendo Switch does not satisfy this claim limitation under the adopted claim construction.

5. in which the structural bridge provides a void, the void disposed between the first end of the structural bridge and the second end of the structural bridge, the void having right, left, upper, and lower sides, each side of the void communicating with a material of the structural bridge.

Gamevice argues, in part:

> The upper frame of the Nintendo Switch meets limitation "8d" because it has a void disposed between its first and second ends, and has right, left, upper, and lower sides, each of which communicates with a material of the upper frame, as shown in CDX-0001C.93. CX-0001C at Q/A 569-571. Nintendo does not dispute that the upper frame has a through hole bounded by a material of the upper frame on all four sides. It only disputes that the hole is not a void because a cable goes through that hole in the finished product. *See* RPreHB at 74.
>
> Nintendo argues that the hole in the upper frame shown in CDX-0001C.93 is "filled with a cable," but that is incorrect because the "cable" is a thin flexible printed circuit for the LCD that cannot take up the entire space of the void. CX-0001C at Q/A 572-73. Therefore, even if the portion taken up by the FPC is discounted, there still remains an empty space satisfying the void limitation. *See id*. For this reason, Nintendo's attempt to analogize the upper frame to figure 35 of the '393 patent with a "filled hole" is misguided because the void in the upper frame is never "filled" by the FPC. *See id*. Nintendo also argues that under this interpretation, at least some side of the void is in communication with the FPC rather than the material of the structural bridge. *See* RPreHB at 75. This is not true because the void is still circumscribed by the same four sides whether or not there is an FPC going through it. *See* CX-0001C at Q/A 572, 574-75.

Compl. Br. at 58-59.

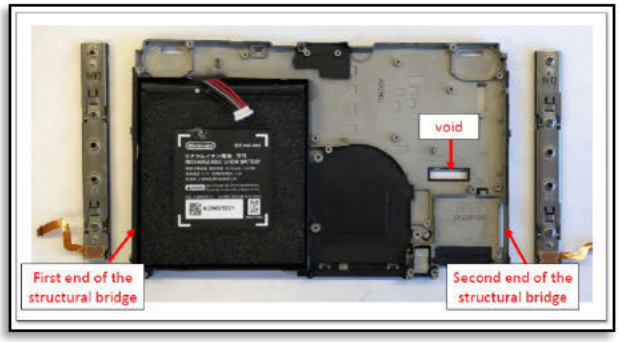
Nintendo argues, in part:

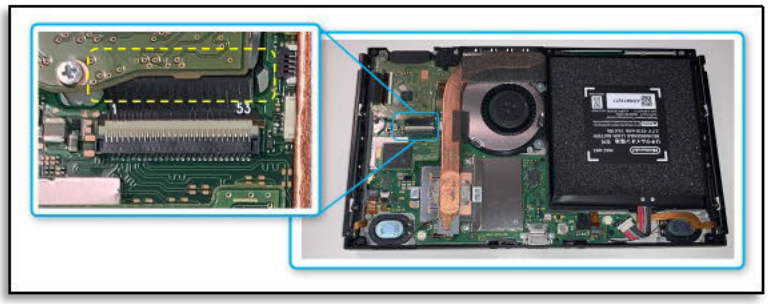
> Claim 8 includes another requirement for the "structural bridge," namely that it "provides a void … the void having right, left, upper, and lower sides, each side of the void communicating with a material of the structural bridge." But there

is no void in the upper frame when Nintendo imports the Nintendo Switch console into the United States, and thus, this limitation cannot be satisfied. RX-1824C, Q543–66.

The '393 patent does not use the term "void," except in the claims, and no party requested a construction of the term. The plain and ordinary meaning of the word, further confirmed in dictionaries, is that a "void" is "an empty space; emptiness" and "completely empty." RX-1541; RX-1542; RX-1543; RX-1824C, Q550–52. Gamevice seems to agree with these plain and ordinary meanings, as Dr. Singhose distinguished between the "big void in the middle of [the structural bridge]" in Figure 35, Tr. 257:6–12; *see also* CX-1C, Q1053; CDX-1.197 (annotated photographs of CPX-1), from the area in Figure 35 with a wire going through it, which he called a "passageway," CX-1C, Q161; CDX-1C.18 (annotated figures from JX-1). Thus, Gamevice seems to agree that an empty space is a void, but a space with a wire is not. RX-1824C, Q548; RDX-3C.68 (JX-1, Fig. 35, with annotations).

But, for infringement, Gamevice points to a hole in the upper frame as the "void" (right), CX-1C, Q569–70; CDX-1C.93 (annotated photograph of CPX-21), despite it being filled with a cable—namely, the LCD Main FPC—when the assembled product is imported into the United States (right). RX-1824C, Q554–55; RDX-3C.70 (RX-1522.139); RX-1824C.A, Q555. Before the product is assembled, the upper frame assembly has a hole, but when it is imported into the United States as an assembled product, there is no "void" as that term is understood by a POSA. RX-1824C, Q555–57; RX-1824C.A, Q555; RX-994C.6–13.





Gamevice offers two arguments in response. First, Gamevice says that even though something fills in the void, it is still a "void" within the meaning of the claim. But that is contrary to the plain meaning of a "void," which is "empty space." RX-1824C, Q550–52; RX-1541; RX-1542; RX-1543. Gamevice seeks to change the term from "void" to "hole," but a hole is the area that, may or may not, surround a void. RX-1824C, Q558. For instance, if a hole is cut through a piece of wood, there is a hole in the wood and a void where the wood used to be. *Id.* If putty fills the hole, the hole remains, but the void does not. *Id.* When the upper

> frame is assembled into a console, the LCD Main FPC fills in the hole in the upper frame—the hole remains in the upper frame, but the void does not. *Id*., Q555–58; RX-1824C.A, Q555.
>
> Second, Gamevice says that even with the LCD Main FPC, there is still some small empty space in the hole in the upper frame surrounding the FPC. CX-1C, Q572. But this renders the term meaningless, as a POSA would not consider an unfilled part of a hole to be a void. RX-1824C, Q559. In addition, even if the empty space surrounding the FPC was considered a void—and even if Gamevice had identified that space in its infringement contentions (which it did not), RX-1387C.109–112—it would still fail to meet the limitation because the claim requires that "each side of the void" be in communication with material of the "structural bridge." RX-1824C, Q559. With the FPC in the hole, at least one of the sides of the alleged void would necessarily be in communication with the FPC, not the supposed structural bridge, thus the claim requirements would still not be met.

Resps. Br. at 66-68.

> The Staff argues, in part:
>
> Claim 8 of the '393 patent recites a structural bridge that "provides a void, the void disposed between the first end of the structural bridge and the second end of the structural bridge, the void having right, left, upper, and lower sides, each side of the void communicating with a material of the structural bridge." JX-0001 ('393 patent) at cl. 8. Gamevice contends that this limitation is met by a hole in the upper frame assembly. *See* Compl. P.H. Br. at 56-57.
>
> * * *
>
> The Staff disagrees.
>
> Accordingly, the accused Nintendo products do not satisfy the "void" limitation of claim 8 of the '393 patent.

Staff Br. at 53-54.

As discussed above, one skilled in the art would not understand Gamevice's selected components of the Nintendo Switch console to constitute a device. *See* JX-0001 ('393 patent) at col. 4, lns. 43-45. Gamevice claims that an internal component of the console, here the upper frame, is the "structural bridge." As Dr. Stern testified, however, "[W]hen the Nintendo Switch, in its fully functional form with all of its parts intact, is considered the 'computing device,' there

is no other element that can satisfy the structural bridge limitation." RX-1824C (Stern RWS) at Q/A 293. The component identified by Gamevice and Dr. Singhose as the "structural bridge" is an integral part of the Nintendo Switch console, and as part of the "computing device" it cannot also satisfy the "structural bridge" limitation. *See id.*

If, however, the upper frame is considered the "structural bridge," separate from the "computing device," the administrative law judge finds that Gamevice has shown that the upper frame contains a void disposed between its first and second ends, and has right, left, upper, and lower sides, each of which communicates with a material of the upper frame. *See* CX-0001C (Singhose DWS) at Q/A 569-71. Nintendo argues that the alleged hole is filled with a cable when the assembled product is imported into the United States. *See* Resps. Br. at 66-68. However, even if the portion taken up by the cable is discounted, there still remains an empty space satisfying the void limitation. *See* CX-0001C (Singhose DWS) at Q/A 572-73.

Accordingly, it is determined that the Nintendo Switch does not satisfy this claim limitation under the adopted claim construction.

* * *

It is therefore determined that the accused Nintendo Switch does not infringe asserted independent claim 8 of the '393 patent.

H. Claim 12

The Joy-Con Grip and the Joy-Con Charging Grip are accused of infringing independent claim 12 of the '393 patent. Gamevice asserts, "The analysis of claim 12 below applies to both the Joy-Con Grip and the Joy-Con Charging Grip, which are identical in all material aspects relevant to the infringement analysis of claim 12." Compl. Br. at 59.

1. A combination comprising:

The Joy-Con Charging Grip constitutes "a combination." See CX-0001C (Singhose DWS) Q/A 577. Nintendo does not contest that the Joy-Con Charging Grip satisfies this limitation. *See* Resps. Br. at 46-47.

2. a first electronic game control module of a pair of electronic game control modules, and a second electronic game control module of the pair of electronic game control modules

The Joy-Con Charging Grip includes a pair of electronic game control modules. *See* CX-0001C (Singhose DWS) at Q/A 584-87. Nintendo does not contest that the Joy-Con Charging Grip includes this limitation. *See* Resps. Br. at 46-99.

3. each the first and the second electronic game control modules includes at least a plurality of instructional input devices,

The Joy-Con Charging Grip includes a pair of electronic game control modules, where each of the first and the second electronic game control modules includes at least a plurality of instructional input devices. *See* CX-0001C (Singhose DWS) at Q/A 588-91. Nintendo does not contest that the Joy-Con Charging Grip includes this limitation. *See* Resps. Br. at 46-99.

4. and at least one of the first and the second electronic game control modules further comprising a restraint, the restraint providing at least a spring member;

The Joy-Con Charging Grip satisfies this limitation. *See* CX-0001C (Singhose DWS) at Q/A 592-95. Nintendo does not contest that the Joy-Con Charging Grip includes this limitation. *See* Resps. Br. at 46-99.

5. a structural bridge interposed between said first and second electronic game control module,

The Joy-Con Charging Grip satisfies this limitation. *See* CX-0001C (Singhose DWS) at Q/A 592-95. Nintendo does not contest that the Joy-Con Charging Grip includes this limitation. *See* Resps. Br. at 46-99.

6. said structural bridge comprising a first side, said first side of said structural bridge in contact adjacency with said first electronic game control module,

Gamevice argues, in part:

> Limitations "12e" and "12f" are identical except that "12e" applies to the first side of the Grip and "12f" applies to the second side of the Grip. *See* Stern Tr. 449:2-5. The evidence showed that the Grip combination meets these limitations literally under the agreed-upon construction "contact adjacency," "next to and touching." CX-0001C at Q/A 603-604. As shown in CDX-0001C.101-105, the left side of the Grip is next to and touching the left Joy-Con and the right side of the Grip is next to and touching the right Joy-Con. CX-0001C at Q/A 605-613. The entire left and right sides of the Joy-Cons, as shown in CDX-0001C.103 and 105 are in contact adjacency with the sides of the Grip's structural bridge, as denoted in CDX-0001C.102 and 104, and as admitted by Nintendo's expert, Dr. Stern. CX-0001C at Q/A 609, 613, 616; *see* Stern Tr. 456:8-457:12.
>
> Nintendo's only remaining argument for these limitations is that the rails in the Grip are not part of the structural bridge because Gamevice identified the same rails in the Nintendo Switch console as being "separate and distinct" from the structural bridge in claim 1. RPreHB at 106. This argument lacks merit for several reasons. CX-0001C at Q/A 614-15. First, claim 12 does not recite "confinement structure" or require that the side rails be "separate and distinct" from the structural bridge. Therefore, importing limitations from claim 1—an unrelated independent claim—into claim 12 is improper. Second, Gamevice's infringement analysis for claim 12 is directed to the Joy-Con Grip and the Joy-Con Charging Grip combinations only, which are different from the Nintendo Switch combination. Therefore, Nintendo's attempt to use the mapping for the Nintendo Switch combination to attack the mapping for the Grip combination is improper. Third, the side rails are manufactured to be part of the Grip, including its middle plastic portion, which Gamevice identified as the structural bridge. They are tightly screwed into the Grip and recessed into the middle portion of the Grip, such that the rails and the Grip "become, basically, a single structural component with the center plastic portion." *See* Stern Tr. 449:23-451:6; CDX-0001C.101 and 102. In contrast, in the Nintendo Switch console, the side tabs of the back cover of the Switch console intervene between the side rails and the upper frame, as shown in

> CDX-0001C.53 and 54. Therefore, Nintendo's argument is erroneous for ignoring the structural differences between the Switch combination and the Grip combination as they relate to this claim limitation.

Compl. Br. at 61-62.

Nintendo argues, in part:

> As discussed above, Section 14.2, Gamevice's argument regarding "separate and distinct" for claim 1 is inconsistent with its argument regarding "contact adjacency" for claim 12. If, however, the ALJ finds that the rails are "separate and distinct" from the upper frame assembly—which as discussed above, they are not—then the rails cannot be part of the purported sturctural bridge of the Joy-Con Grip. And in that case, there can be no "contact adjacency" between the Joy-Con and the Joy-Con Grip, as required by claim 12. RX-1824C, Q649–50.
>
> In sum, the Joy-Con Grip and Joy-Con cannot infringe claim 12 because the Joy-Con Grip lacks a retention mechanism, a boss, and does not meet the recited "coupl[ing]" limitation.

Resps. Br. at 96.

The Staff argues, in part:

> Claim 12 of the '393 patent recites a "[first/second] side of said structural bridge in contact adjacency with said [first/second] electronic game control module." JX-0001 ('393 patent) at cl. 12. Gamevice contends that the sides of the grip are next to and touching the Joy-Con Controllers. *See* Compl. P.H. Br. at 59. This, however, is not consistent with Gamevice's theories regarding the other claims. *See* Resps. P.H. Br. at 106-107. As discussed above with respect to claim 1, Gamevice contends that the rails of the Nintendo Switch Console device are separate and distinct from the alleged structural bridge. However, for purposes of claim 12, Gamevice argues that the substantially identical rails of the Grip are now part of the structural bridge. *See* Compl. P.H. Br. at 59. Gamevice cannot have it both ways. If the rails are part of the structural bridge, then Gamevice's theory fails with respect to all of the other asserted claims. If, however, the rails are not a part of the structural bridge, then Gamevice cannot show that this limitation of claim 12 is satisfied because the Joy-Con Controllers are next to and touching the Grip's rails – not the structural bridge.

Staff Br. at 55-56.

Nintendo argues that Gamevice's argument regarding "separate and distinct" for claim 1 is inconsistent with its argument regarding "contact adjacency" for claim 12. *See* Resps. Br. at

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96. However, as ruled above, the rails are not "separate and distinct" from the upper frame assembly. The evidence shows that the Grip combination meets this limitation literally under the agreed-upon construction "contact adjacency," "next to and touching." JX-0014 at 1. The Joy-Con Charging Grip satisfies this limitation. *See* CX-0001C (Singhose DWS) at Q/A 603-04.

7. said structural bridge further comprising a second side, said second side of said structural bridge in contact adjacency with said second electronic game control module,

As ruled above, the rails are not "separate and distinct" from the upper frame assembly. The evidence shows that the Grip combination meets this limitation literally under the agreed-upon construction "contact adjacency," "next to and touching." JX-0014 at 1. The Joy-Con Charging Grip satisfies this limitation. *See* CX-0001C (Singhose DWS) at Q/A 603-04.

8. said structural bridge still further comprising a retention mechanism, the retention mechanism providing at least a boss,

The administrative law judge finds that the Joy-Con Charging Grip does not include this feature of claim 12. *See* RX-1824C (Stern RWS) at Q/A 584-606.

Gamevice argues, in part:

> The evidence showed that the Grip meets this limitation because the middle plastic portion of the Grip is attached to the rails on both sides, each of which comprises a retention mechanism providing at least a boss under all parties' proposed constructions. CX-0001C at Q/A 617-18. The sides of the Grip infringe under Gamevice's proposed construction because they are mechanical appliances that secure the Grip's structural bridge and the Joy-Cons in a particular relationship. CX-0001C at Q/A 619-21. As shown in CDX-0001C.106-107, each side has a metal tab (i.e., a boss) and a notch (i.e., a catch) on its upper side, which interact with the restraint (spring-loaded buttons on the Joy-Cons). *See id*., 625-26.
>
> In response, Nintendo argues that a single, stationary piece like a portion of the rail is not a "retention mechanism" because it does not satisfy a dictionary definition of "machine," which requires "having definite motions." *See* RPreHB 103. But the Grip rails satisfy this definition because they move relative to the Joy-Cons as they slide into the rails. *See* CDX-0001C.110. Moreover, Nintendo overlooks the fact that Gamevice's construction states, "a machine *or mechanical appliance* . . . ," so it is possible for a component to meet Gamevice's construction

even if it is not a machine. Indeed, as the evidence showed, a POSITA would understand that a one-piece component like the rails of the Grip's structural bridge can be a "mechanical appliance." CX-0001C at Q/A 622-23. The Grip rails satisfy dictionary definitions of "appliance," because they are "a piece of equipment for adapting a tool or machine to a special purpose: Attachment" and "an instrument or device designed for a particular use or function." *See* Stern Tr. 482:2-24.

The evidence also showed that the same components of the Grip satisfy OUII's proposed means-plus-function construction, structure (1), literally or under the doctrine of equivalents. CX-0001C at Q/A 628-29. The components of the Grip identified in CDX-0001C.108 perform the identical function of securing the Grip's structural bridge to the Joy-Cons. CX-0001C at Q/A 630. They perform this function in substantially the same way because the Grip rails comprise confinement bosses having fastening detents that interact with a retention member, which is responsive to a catch, as shown in CDX-0001C.108. *See id*. They achieve substantially the same result as the claimed "retention mechanism" because they catch the spring-loaded locking mechanism in the Joy-Cons to prevent them from sliding out of the Grip. *See id*. It is undisputed that when a Joy-Con slides down the rail, the boss of the rail depresses the slide, which then depresses the spring member. CX-0001C at Q/A 630-631, 636; CDX-0001C.109. When the slide reaches the notch, the depressed spring extends, thereby releasing the slide and the button, engaging the locking mechanism, locking the Joy-Con in place. *See id*. Alternatively, they infringe under the doctrine of equivalents because the differences between the claimed "retention mechanism" and the identified components in the Grip combination are insubstantial, and they perform substantially the same function in substantially the same way to achieve substantially the same result as the claimed "retention mechanism." CX-0001C at Q/A 632; CDX-0001C.99-100.

In response, Nintendo argues that the metal tab on the rail is not a "boss" because it is a continuation of the rail after the notch rather than a "protruding feature on a work piece". *See* RPreHB at 102. But the evidence showed that a POSITA would consider that metal tab on the uppermost portion of the rail a protuberance or a protruding feature on the Grip rail. CX-0001C at Q/A 625-26. Furthermore, the evidence showed, and Nintendo's expert agreed, that the patentee acted as a lexicographer to define the term "boss" more broadly than how Nintendo's expert would define it. *See* Stern Tr. 489:11-492:15. Nintendo and its expert do not dispute that the portions of the Grip rails satisfy this broader definition of "boss" in the '393 patent. *See id*.

Nintendo also argues that Gamevice's arguments for this limitation are not credible because they are different from the position it took in the 1111 Investigation. *See* RPreHB at 101. But the arguments made in the 1111 investigation are irrelevant here because they were based on the claims of the '498 and '713 patents, which are different from the '393 patent claims, as explained in section VI. C. below. CX-0001C at Q/A 633. Similarly, that Gamevice pointed to

a different component as the "fastening detent" in the 1111 investigation is irrelevant because the claims at issue in the 1111 Investigation concerned a different invention from what is at issue in this investigation. *Comair Rotron, Inc. v. Nippon Densan Corp.*, 49 F.3d 1535, 1539 (Fed. Cir. 1995) (rejecting defendant's estoppel argument, holding that "separate patents describe 'separate and distinct inventions,' and it cannot be presumed that related patents rise and fall together.").

Nintendo also argues that Gamevice's "retention mechanism" does not couple or secure the structural bridge to an electronic game control module because the complementary rails on the Grip and the Joy-Cons do so. *See* RPreHB at 102-103. Nintendo's only support for this argument is Dr. Stern's testing, in which he removed the locking mechanism from the Grip combination and found that the Joy-Cons remained coupled to the Grip. *See id*. But this testing is consistent with Gamevice's argument because the existence of another factor involved in coupling the structural bridge to an electronic game control module is irrelevant to whether the locking mechanism and the corresponding portions in the Grip's rails couple those structures together. CX-0001C at Q/A 637-38. Further, there is no requirement that the interaction between the retention mechanism and the restraint be the only thing securing the Grip's structural bridge and the Joy-Cons. CX-0001C at Q/A 638-39; *Northern Telecom, Inc. v. Datapoint Corp.*, 908 F.2d 931, 945 (Fed. Cir. 1990). Indeed, the evidence showed that a POSITA would understand that Nintendo added the locking mechanism to the Grip combination as a safety feature to prevent the Joy-Cons from sliding out during gameplay when a user engages in sudden and vigorous movements. *See* Stern Tr. 650:25-652:24. The evidence also showed that when the locking mechanism is removed, the Joy-Cons do not remain in place during such vigorous movements, rendering the device unsafe and hazardous for the users. *See* Stern Tr. 652:25-659:8. Therefore, a POSITA would not consider the Joy-Cons without the locking mechanism to be "coupled" with the structural bridge, considering the invention of the '393 patent as a whole. *See id*.

Furthermore, the evidence showed that the Grip combination literally performs the function identified by Nintendo for the reasons explained above in connection with Gamevice's and OUII's proposed constructions. CX-0001C at Q/A 640-41. Nintendo argues that the term retention mechanism is invalid as indefinite for failing to disclose a corresponding structure, but Nintendo is wrong for the reasons explained above in section III. C. 7. CX-0001C at Q/A 642.

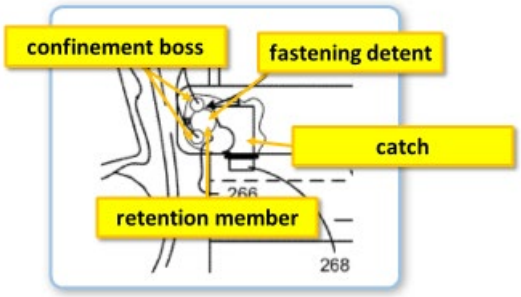
Compl. Br. at 62-65.

Nintendo argues, in part:

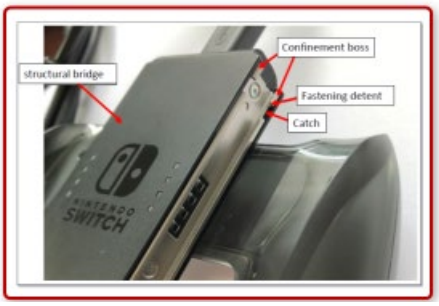
While Staff agrees with Nintendo that "retention mechanism" is properly construed as a means-plus-function term, Staff submits that the specification discloses two structures sufficient to perform the related function. JX-14.4. Gamevice claims that the Joy-Con Grip has a structure equivalent to Staff's first

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proposed structure: "[T]he mechanical arrangement, as shown in Figure 14, using a confinement boss 262 having a fastening detent 264 that interacts with a retention member 266 that is responsive to a catch 268 to secure the structural bridge 258 to the pair of control modules 252 (*see* '393 patent, Fig. 14; Col. 8:38–49)," JX-14.4–5. *See* CX-1C, Q629.



Shown in the image below is Figure 14 with the mechanical arrangement recited in Staff's first proposed structure identified. JX-1, Fig. 14, 8:38–49. Gamevice tries to map those components onto the Joy-Con Grip rail as shown in the image below right. CDX-1C.108 (annotated photograph of CPX-22). Gamevice fails. RX-1824C, Q585–606; RX-1824C.A, Q606.



* * *

So too for the "fastening detent." Gamevice says that the "fastening detent" required by Staff's structure is the same gap in the rail as the suppsed "catch." But a "fastening detent" prevents motion relative to a "catch," and "detents are usually spring-loaded balls or levers that prevent motion by engaging with a feature on a moving object." *Id.*, Q588, 596; RX-60C, Q298. The part Gamevice identifies as the "fastening detent" does not—and indeed cannot—prevent motion relative to the purported "catch" since they are the same supposed structure and both are stationary elements on the same rail. RX-1824C, Q578, 588, 596; RX-60C, Q298.

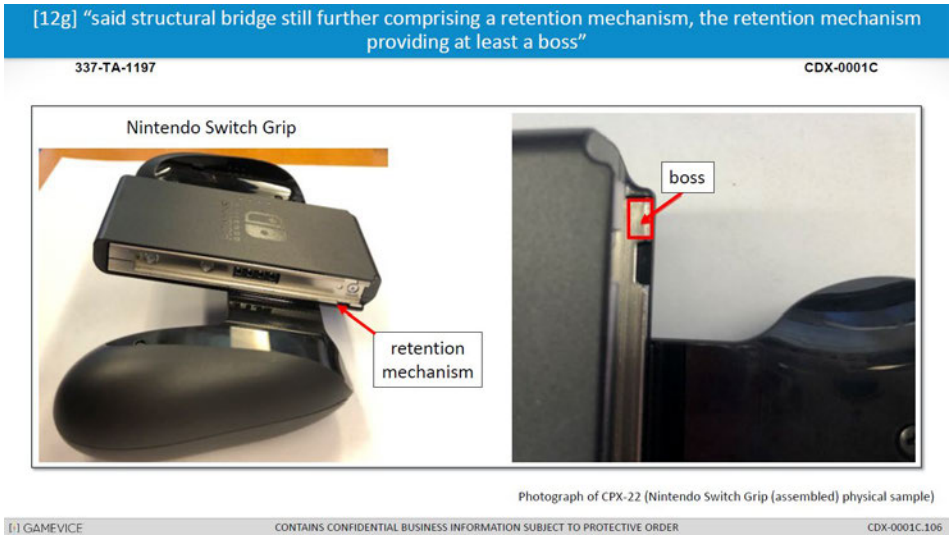
Similarly, there is no "confinement boss" as required by Staff's structure. As explained below, in Section 16.2, the Joy-Con Grip has no "boss"—"confinement" or otherwise. Thus, since the structures required by Staff's construction are not present in the Joy-Con Grip, Gamevice has failed to show infringement under the Staff's construction. RX-1824C, Q585–88, 596–605. Gamevice's allegations under DOE do not add anything to its arguments on structural equivalents. Therefore, the evidence also shows that the "retention mechanism" under Staff's proposed construction is not met under DOE. RX-1824C, Q606; RX-1824C.A, Q606.

Resps. Br. at 86-88.

The Staff argues, in part:

Claim 12 of the '393 patent recites a structural bridge "comprising a retention mechanism." JX-0001 ('393 patent) at cl. 12. Applying its proposed claim construction that a retention mechanism is "a machine or mechanical

appliance that secures components in a particular relationship," Gamevice contends that a cutout in the Nintendo Switch Grip rail satisfies this limitation as shown in the figure below. *See* Compl. P.H. Br. at 60-62.



CDX-0001C (Singhose Demo.) at 106.

Nintendo disputes that this is the correct claim construction. Additionally, Nintendo argues that a single, stationary portion of the rail is not a machine or mechanical appliance and thus cannot satisfy this limitation under Gamevice's proposed construction. *See* Resps. P.H. Br. at 103-104. According to Dr. Stern, a person skilled in the art would understand a machine to be a "a combination of rigid or resistant bodies having definite motions and capable of performing useful work or mechanical appliance." RX-1824C (Stern RWS) at Q/A 576. A person skilled in the art would not understand a single part to be a "mechanism" or a "mechanical appliance." *Id.* at Q/A 583. The Staff agrees.

Under the Staff's proposed construction of "retention mechanism" as a means-plus-function limitation, Gamevice argues that the limitation is met either literally or under the doctrine of equivalents. Compl. P.H. Br. at 60. Nintendo and the Staff disagree. Under the Staff's proposed construction, two different mechanical arrangements disclosed in the '393 patent correspond to the claimed retention function. According to Dr. Stern, the rails of the Grip do not employ either of those mechanical arrangements. RX-1824C (Stern RWS) at Q/A 584-606. The Staff agrees. The '393 patent does not disclose a notched rail as a retention mechanism, nor is a notched rail equivalent to the disclosed mechanisms of the '393 patent. *Id.*

Accordingly, the accused Nintendo products do not satisfy the "retention mechanism" limitation of claim 12 under the correct construction proposed by the Staff.

* * *

> Claim 12 of the '393 patent recites a "retention mechanism providing at least a boss." JX-0001 ('393 patent) at cl. 12. Gamevice contends that the "boss" limitation is met by the rails of the Grip. *See* Compl. P.H. Br. at 60 ("Each side has a boss and a notch on the upper side, which interact with the restraint (spring-loaded buttons on the Joy-Cons) described above."). According to Gamevice, nothing precludes a protrusion on a rail from satisfying the "boss" limitation. *Id.* Nintendo disagrees. According to Dr. Stern, "[c]utting a notch in a component does not create two bosses on either side of the notch, as Dr. Singhose's testimony suggests." RX-1824C (Stern RWS) at Q/A 582. One skilled in the art would understand the accused rail to have a notch as opposed to a boss. *See id.*
>
> Accordingly, the accused Nintendo products do not satisfy the "boss" limitation of claim 12 of the '393 patent.

Staff Br. at 56-58 (footnote deleted).

As an initial matter, the administrative law judge has determined that the term "retention mechanism" is subject to § 112(f), and the relevant function is "securing the structural bridge to the control modules." Furthermore, the corresponding structures are: (1) the mechanical arrangement, as shown in Figure 14, using a confinement boss 262 having a fastening detent 264 that interacts with a retention member 266 that is responsive to a catch 268 to secure the structural bridge 258 to the pair of control modules 252 (JX-0001 ('393 patent) at Fig. 14; col. 8, lns. 38-49); (2) the mechanical arrangement, as shown in Figures 27 and 29, using a boss 430 interacting with an adjustment structure 432 to adaptively secure the control module 402 to a structural bridge 422 (JX-0001 ('393 patent) at Figs. 27 and 29; col. 11, ln. 58 – col. 12, ln. 39); and (3) equivalents thereof.

Gamevice argues that the same components of the Grip satisfy structure (1), literally or under the doctrine of equivalents. *See* Compl. Br. at 63. As noted above, the first corresponding structure is the mechanical arrangement shown in Figure 14, where a confinement boss 262 having a fastening detent 264 interacts with a retention member 266 that is responsive to a catch

268 to secure the structural bridge 258 to the pair of control modules 252. *See* JX-0001 ('393 patent) at col. 8, lns. 38-49.

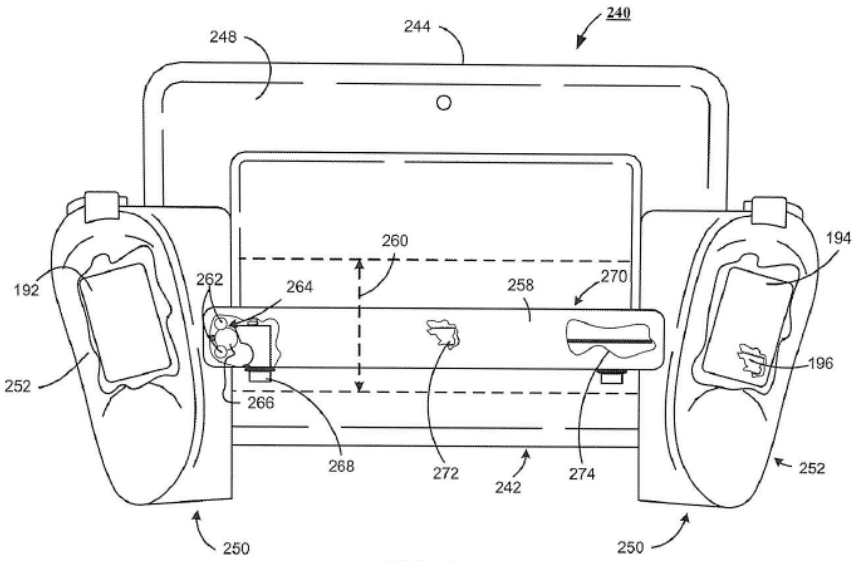
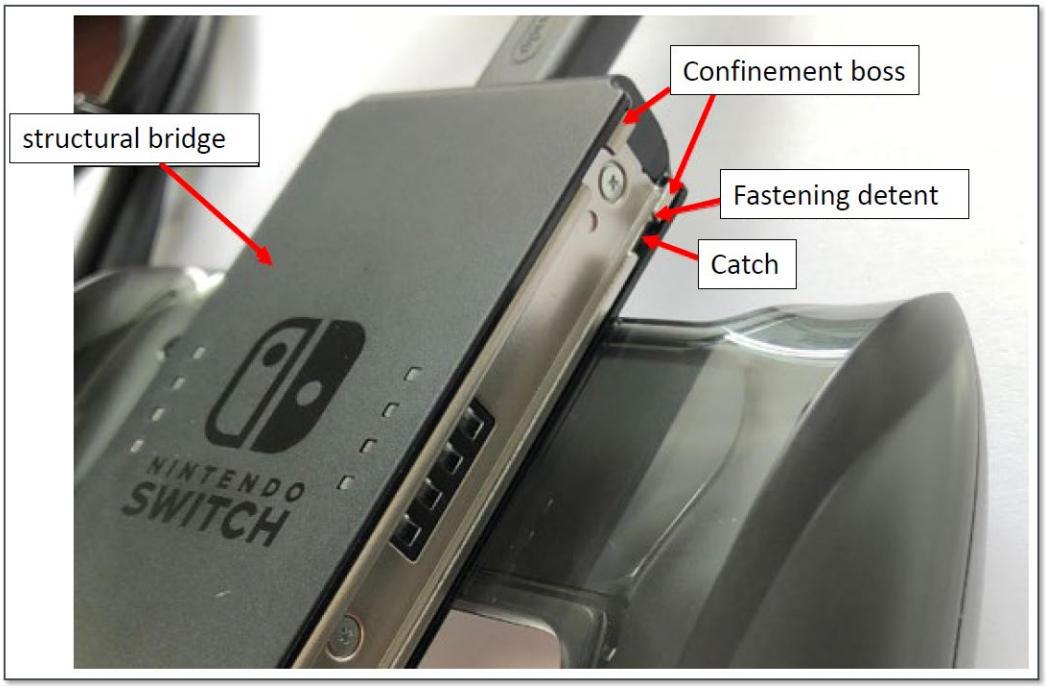


FIG. 14 of JX-0001 ('393 patent)

Gamevice contends that the components of the Grip secure the Grip's structural bridge to the Joy-Cons perform the identical function as structure (1) in substantially the same way to achieve substantially the same result as the claimed "retention mechanism" because they catch the spring-loaded locking mechanism in the Joy-Cons to prevent them from sliding out of the Grip. *See* Compl. Br. at 63. However, as Dr. Stern testified, the rails of the Grip do not employ either of the mechanical arrangements identified in the specification of the '393 patent. *See* RX-1824C (Stern RWS) at Q/A 584-606.



CDX-0001C at 108 (edited photograph of CPX-22)

The rails of the Joy-Con Grip differ significantly from the "mechanical arrangement" of Figure 14. *See id.* at Q/A 588. For instance, the catch shown in Figure 14 is spring activated 268, JX-0001 ('393 patent) at col. 8, lns. 44-45 (" … the retention member 266 is responsive to a catch 268, which referably is a spring activated catch 268 … "), but Gamevice labels the gap in the rail as the supposed "catch," which is neither spring activated nor functions like a "catch." RX-1824C (Stern RWS) at Q/A 578, 588, 604. Thus, this structure is absent. The '393 patent does not disclose a notched rail as a retention mechanism, nor is a notched rail equivalent to the disclosed mechanisms of the '393 patent. *Id.*

Accordingly, it is determined that the Joy-Con Charging Grip does not satisfy this claim limitation under the adopted claim construction.

9. an interaction of the spring member of the restraint with the boss of the retention mechanism couples the structural bridge to at least one of the first and the second electronic game control modules.

The administrative law judge finds that the Joy-Con Charging Grip does not satisfy this limitation of claim 12. *See* RX-1824C (Stern RWS) at Q/A 613-15.

Gamevice argues, in part:

> The evidence showed that the Grip combination literally satisfies this limitation. CX-0001C, Singhose WS Q/A 643. As shown in CDX-0001C.110, the spring in the restraint described in "12c" interacts with the boss of retention mechanism described in limitation "12g" to couple the structural bridge to the Joy-Cons, as shown in CDX-0001C.111. CX-0001C at Q/A 643-647; *see also* CX-0131C.0007, CX-0132C.0008. The specific mechanism by which this interaction occurs is described above for limitation "12g," which Nintendo's expert agrees with. *See* Stern Tr. 499:11-500:14. For this limitation, Nintendo argues that the spring and the boss do not interact because their interaction is mediated by a plastic lever, which Dr. Stern refers to as a "slide." *See* RPreHB at 104-105. Nintendo and Dr. Stern do not dispute that the boss and the slide interact when the Joy-Con slides down the rail, and they also do not dispute that the slide interacts with the spring. *See id*.; *see also* Stern Tr. 499:11-500:14. Instead, they only argue that this interaction does not satisfy the claimed interaction because it is mediated by another component. In doing so, Nintendo effectively construes the word "interact" to read out any indirect interaction between two components without any legitimate basis to do so. CX-0001C at Q/A 648-650.
>
> Even though Nintendo attempts to construe the term "interact," it failed to timely raise this claim construction dispute, so the plain and ordinary meaning of the term controls. As the evidence showed, a POSITA would understand "interaction" to mean" mutual or reciprocal action or influence," which does not prohibit an interaction between two components mediated by another component. *See* Stern Tr. 500:20-501:1. This is consistent with how the patentee used the term "interact" in the '393 patent, when it stated ". . . a boss 430, communicating with the structural bridge 422, and an adjustment structure 432, interacting with the boss 430, *by way of the adjustment feature 428*." JX-0001 at 12:4-12; *see* Stern Tr. 504:16-505:12.

Compl. Br. at 65-66 (footnote omitted).

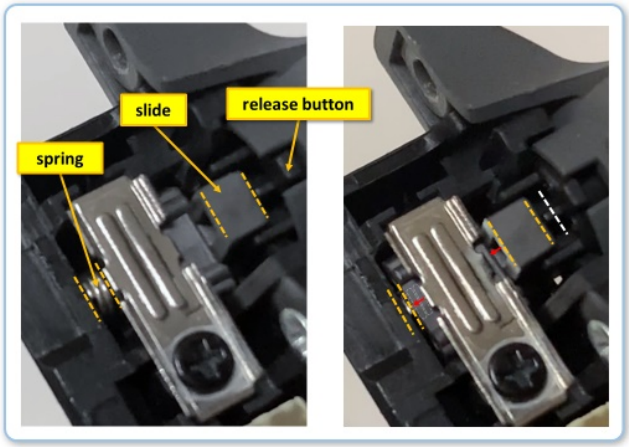
Nintendo argues, in part:

> Claim 12 requires that the "spring member of the restraint" "interact[]" "with the boss of the retention mechanism," and that that interaction, "couple[]"

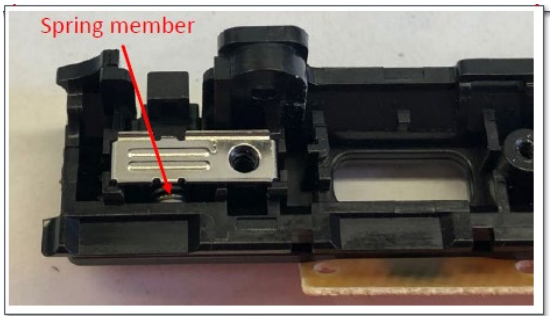
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"the structural bridge to at least one of the first and the second electronic game control modules." The limitation, thus, requires two different things: First, it requires that the "spring member" "interact[]" with the "boss of the retention mechanism," and second, that the "interaction" perform the function of "coupl[ing]" the structural bridge to the game control modules. Gamevice cannot prove either.

Gamevice has not shown the first part of the requirement—that what it calls the "spring member" "interacts" at all with what it calls the "boss." Each Joy-Con contains a locking mechanism that consists of a release button, spring, bracket, and a plastic piece Dr. Stern referred to as a "slide." RX-1824C, Q613; RX-1824C.A, Q613. The image right shows the mechanism in two states. RX-1824C, Q613; RX-1824C.A, Q613; RDX-3C.82 (showing frames from RX-1532). On the left, the release button is not pressed, and the spring is not compressed. On the right, the release button is pressed, which in turn presses the slide, and compresses the spring. RX-1824C, Q613–15; RX-1824C.A, Q613; RX-1532.



Gamevice contends that the "spring member" is the spring in the Joy-Con. CX-1C, Q592–93; CDX-1C.98 (annotated photograph of CPX-24) (right). But Gamevice did not—because it could not—show how that spring interacts with the portion of the rail in the Joy-Con Grip that Gamevice calls the "boss." RX-1824C, Q616. Instead of providing an explanation for how the limitation is met, Dr. Singhose simply ignored it, providing instead a demonstrative stating that the release button "interacts with the boss and the spring." CDX-1C.110 (annotated photograph of CPX-24) (right). But this "evidence" shows the wrong component, because it is the supposed spring member that must interact with the supposed boss, not the release button, RX-1824C, Q616, and Gamevice offers no evidence as to that relevant interaction. CX-1C, Q643–50. In fact, the identified spring interacts only with internal components of the Joy-Con. *Id.*, Q612.





Even if Gamevice had actually offered evidence showing that the supposed spring member interacted with the supposed boss (it did not), the interaction would not satisfy the second part of the claim—that the "interaction" "couple" the Joy-Con to the Joy-Con Grip. JX-1, claim 12. Neither the lock on the Joy-Con (or more particularly, the spring in the lock of the Joy-Con) nor the portion of the rail that Gamevice says is a boss are responsible for coupling the Joy-Con to the rail. Stern Tr. 649:13–20. Instead, what couples the Joy-Con to the rail is "the T-shape member that's on the Joy-Con [that] goes into the channel of the rail. And the combination of those two couple the Joy-Con to the rail as well as the rest of the Grip." *Id.* Indeed, the record contains only one experiment designed to demonstrate the required coupling, and it was an experiment performed by Dr. Stern. *Id.*, 649:21–650:4; RX-1824C, Q590–95; RX-1529, RX-1530, RX-1531. As he testified, he removed the locking mechanism (which includes the spring that Gamevice says is the spring member) from a Joy-Con and then tested sliding that Joy-Con onto the Joy-Con Grip. RX-1824C, Q590–92. Even with the purported spring member removed, the Joy-Con was coupled to the Joy-Con Grip, as documented in videos taken by Dr. Stern. *Id.*, Q593–94; RX-1529; RX-1530; RX-1531. Dr. Stern concluded, based partially on this test, that it is not the interaction between the spring in the lock on the Joy-Con and the portion of the rail that Gamevice identified as the boss that couples the Joy-Con to the rails, but rather the rails and the complementary Joy-Con shape. RX-1824C, Q595.

Gamevice has *no evidence* to counter Dr. Stern's analysis showing that the Joy-Con is coupled to the Joy-Con Grip by something other than the supposed interaction between the purported spring member and the purported retention mechanism. Dr. Singhose did none of his own anlysis, let alone experiments—only Dr. Stern performed experiments. Tr. 655:14–22 (Dr. Stern stating he "did the only testing on the product so far that [he'd] seen"); *see generally* CX-1C. While Gamevice's counsel tried on re-cross examination to dismiss Dr. Stern's experiments (using demonstratives of non-record material), those efforts amount to nothing more than inadmissible attorney argument. Tr. 650:13–654:15; *Johnston v. IVAC Corp.*, 885 F.2d 1574, 1581 (Fed. Cir. 1989) ("Attorneys' argument is no substitute for evidence.").

Lacking any record evidence to demonstrate that the identified portion of the Joy-Con Grip performs the required coupling function, Gamevice simply tried to change what the claim limitation requires by modifying the claim language. So, Gamevice claims that the coupling required is not the "coupl[ing]" actually recited in the claim, but rather, something Dr. Singhose's asserts is "secure coupling." Tr.

> 914:8–12. But Gamevice's secure-coupling theory is just an attempt to amend the claim with a new, different claim limitation. The express claim language requires "coupling," saying nothing whatsoever about whether that coupling is "secure" or otherwise. The phrase "secure coupling" does not appear anywhere in the specification; it is a concept manufactured by Dr. Singhose. *See generally* JX-1. And, even more significantly, claim 19 confirms the difference between "coupl[ing]," as recited in claim 12, and "secur[ing]," since claim 19 recites that the "retention mechanism *secures* the structural bridge to the first of the pair of control modules." JX-01, 21:21–23; *see Amgen*, 923 F.3d at 1031 (different terms are presumed to have different meanings). Finally, Gamevice never requested a construction of the term "coupling" that would transform the plain meaning into "secure coupling," as Dr. Singhose now suggests. Thus, Gamevice's attempt to change the meaning of the limitation fails, and it has failed to prove that this limitation is met.
>
> Gamevice's attempt to allow "indirect interaction"—whatever that means—to satisfy this limitation should also be rejected. CX-1C, Q642, 648. Not only is it untimely, RX-1824C, Q621, it is flawed because, under Dr. Singhose's view, components of a device that were nowhere near each other might "interact" through any number of intermediate components, which is not how a person of ordinary skill would understand this limitation. *Id.*, Q622.

Resps. Br. at 93-96.

The Staff argues, in part:

> Claim 12 of the '393 patent recites "an interaction of the spring member of the restraint with the boss of the retention mechanism couples the structural bridge to at least one of the first and the second electronic game control modules." JX-0001 ('393 patent) at cl. 12. According to Gamevice, the "boss" of the Grip rails holds down a spring while Joy-Con Controllers are being attached or removed. *See* Compl. P.H. Br. at 62. Nintendo and the Staff disagree.

Staff Br. at 58-59.

As an initial matter, the administrative law judge has determined that the term "retention mechanism" is subject to § 112(f), and the relevant function is "securing the structural bridge to the control modules." Moreover, the corresponding structures are: (1) the mechanical arrangement, as shown in Figure 14, using a confinement boss 262 having a fastening detent 264 that interacts with a retention member 266 that is responsive to a catch 268 to secure the structural bridge 258 to the pair of control modules 252 (JX-0001 ('393 patent) at Fig. 14; col. 8,

lns. 38-49); (2) the mechanical arrangement, as shown in Figures 27 and 29, using a boss 430 interacting with an adjustment structure 432 to adaptively secure the control module 402 to a structural bridge 422 (JX-0001 ('393 patent) at Figs. 27 and 29; col. 11, ln. 58 – col. 12, ln. 39); and (3) equivalents thereof.

Gamevice contends that the spring in the restraint interacts with the boss of retention mechanism to couple the structural bridge to the Joy-Cons. *See* Compl. Br. at 65-66. However, as Dr. Stern testified, the alleged "spring member" and "boss" are unrelated to how the Joy-Con Controllers couple with the Grip. RX-1824C (Stern RWS) at Q/A 612. "[T]he component that 'couples' the Joy-Con to the rail is the sliding relationship of the rail itself. That is, the rail of the Joy-Con mates with the complementary shape of the rail on the Grip, and the resulting device is coupled." *Id.* As Dr. Stern further testified, the alleged "spring member" does not interact with what Gamevice identifies as the "boss." *Id.* To the contrary, the "spring member" only interacts with internal components of the Joy-Con Controllers. *Id.* Finally, Dr. Stern demonstrated how the Joy-Con Controllers mate with the Grip rails. *See id.* at Q/A 610-23. This shows that there is no interaction of the spring member with the boss. *See id.*

Accordingly, it is determined that the Joy-Con Charging Grip does not satisfy this claim limitation under the adopted claim construction.

* * *

It is therefore determined that the accused Joy-Con Charging Grip does not infringe asserted independent claim 12 of the '393 patent.

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I. Claim 16

The Nintendo Switch is accused of infringing dependent claims 17 and 18, which depend on independent claim 16 of the '393 patent. Therefore, the Nintendo Switch must be found to practice claim 16 to be found to infringe either of dependent claims 17 and 18.

1. An apparatus comprising:

The Nintendo Switch constitutes "a combination." See CX-0001C (Singhose DWS) Q/A 653-54. Nintendo does not contest that the Nintendo Switch satisfies this limitation. *See* Resps. Br. at 46-99.

2. a first means for attaching an input device to a computing device,

The Nintendo Switch includes "a computing device." *See* CX-0001C (Singhose DWS) Q/A 343; RX-1824C (Stern RWS) at Q/A 241.

As noted above, Gamevice and Nintendo dispute whether the "computing device" means the Nintendo Switch console in its typical form, or whether components of the Nintendo Switch console can be selected to satisfy the limitation. Both parties agree that the Nintendo Switch includes a computing device. *See* CX-0001C (Singhose DWS) Q/A 343; RX-1824C (Stern RWS) at Q/A 241. Nintendo does not contest that the Nintendo Switch satisfies this portion of the limitation. *See* Resps. Br. at 46-99.

As ruled above, the term "first means for attaching an input device to a computing device" is subject to § 112(f), and the relevant function is "attaching an input device to a computing device." Furthermore, the corresponding structures are: (1) structure 128, which allows a computer device to attach to input device 114 by nesting (Fig. 1, col. 4, lns. 46-52, col. 5, lns. 22-31, col. 6, lns. 51-57); (2) control modules that "secure" to a structural bridge using a confinement boss, retention member, detent, and catch (Fig. 14-15, col. 8, lns. 38-49); (3)

confinement structures, a structural bridge, and an adjustable fastening mechanism that provides "sufficient compressive load [] on the computing device [] to securely hold the computing device between the pair of confinement structures" (Figs. 16-17, col. 9, lns. 39-53, col. 9, lns. 60-62, col. 10, lns. 8-20); (4) control modules, a structural bridge, and a tensioning mechanism that allow the input device and computing device to "join[] together" (Fig. 35, col. 14, ln. 42 – col. 15, ln. 17); and (5) equivalents thereof.

Gamevice argues that the side rails, upper frame, and screws perform the identical function as the claimed "first means," which is to couple the structural bridge to at least one of the first and the second electronic game control modules. *See* Compl. Br. at 68-69 (citing CX-0001C (Singhose DWS) at Q/A 667-69). However, as ruled above, the side rails, upper frame, and screws are all portions of the "computing device" itself, and thus cannot satisfy the limitation.

If, however, the side rails, screws, and upper frame are considered separate and apart from the "computing device," the administrative law judge finds that Gamevice has shown that side rails, the upper frame, and the screws satisfy the claimed "first means" limitation. *See id.* at Q/A 669. The side rails, upper frame, and screws perform the function as the claimed "first means," which is to couple the structural bridge to at least one of the first and the second electronic game control modules. *See id.* at Q/A 667-69. Further, the side rails, the upper frame, and the screws perform this function in substantially the same way as the claimed "first means." *See id*.

Accordingly, it is determined that the Nintendo Switch does not satisfy this claim limitation under the adopted claim construction.

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3. said computing device provides a central processing unit and plurality of sides,

The Nintendo Switch satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 680. Nintendo does not contest that the Nintendo Switch includes this limitation. *See* Resps. Br. at 46-99.

4. each of the plurality of sides cooperating with the electronic display screen of said computing device;

The Nintendo Switch satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 680-85. Nintendo does not contest that the Nintendo Switch includes this limitation. *See* Resps. Br. at 46-99.

5. a second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device,

Gamevice argues, in part:

> Under Gamevice's proposed construction of the "first means" limitation for independent claim 16, this limitation is literally met because the relevant structures in the Nintendo Switch perform the identical function recited in the claim and are identical or equivalent to structure (1) identified in Gamevice's construction. *See* CX-0001C at Q/A 688-696. Specifically, in the Nintendo Switch, the Joy-Cons perform the identical function as the claimed "second means," which is to control a movement of virtual objects in a game on the LCD screen of the Nintendo Switch console. To that end, the Joy-Cons provide instructional input devices, such as switches, triggers, buttons, and joysticks, which communicate with the computing device. The Joy-Cons achieve substantially the same result as the claimed "second means." For example, the communication between the instructional input devices and the computing device govern the movement and actions of a playable body or object or otherwise influence events in a video game. *See* CX-0001C at Q/A 690-692; CDX-0001C at 115-117.
>
> Contrary to Nintendo's position, Gamevice's proposed construction and analysis does not exclude the Joy-Cons working with computing device to perform the function of controlling a movement of a virtual object displayed on the LCD screen of the Nintendo Switch console. *See* CX-0001C at Q/A 693-694. Indeed, the Joy-Cons send input signals to the computing device in the Switch console for displaying images. *See id. at* Q/A 695-696. That there are software and firmware installed on the Nintendo Switch console to facilitate the communication between

> the Joy-Cons and the computing device in the Switch console is immaterial to the infringement analysis. *See id. at* Q/A 696. Moreover, nothing in the '393 patent or Gamevice's proposed construction requires control modules to be capable of transmitting more than low-level input signals. *See id*. The transmission of any signals from the Joy-Cons to the computing device, whether low-level or high-level, for controlling images displayed on the Nintendo Switch satisfies the claim limitation at issue. *See id*. Moreover, as explained in detail in connection with limitation [1d], these input signals transmit data from the Joy-Cons to the computing device for controlling images.

Compl. Br. at 71-72.

Nintendo argues, in part:

> Claim 16, from which claims 17 and 18 depend, requires "a second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing de-vice." This limitation is indefinite, rendering claim 16 and all of its dependent claims, invalid. Section 10.5. If, however, Gamevice's proposed construction is accepted, this limitation is still not met by the Nintendo Switch. Gamevice proposes that the Joy-Con are equivalent to Gamevice's proposed structures: "a control module … (120, 252, 278, 356, 402 and 404, 408 and 410, 502 and 504, 543, 544, or 546); or (2) a keyboard module … (164 and 166, 226 and228, or 280)…." CX-1C, Q689–90; JX-14.6–7. But the Joy-Con only provide input to the Nintendo Switch console. RX-1824C, Q719–22. It is, instead, the console and whatever software is running on it (*i.e.*, whatever game is being played), that keeps track of the virtual environment and determines what changes, if any, are necessary to be made to the displayed image. *Id.*, Q722. Therefore, the Joy-Con do not perform the recited function of "controlling a movement of a virtual object displayed on said electronic display screen of said computing device"—the console does. *Id.*, Q719–20; *see also* Tr. 264:11–15 (Dr. Singhose agreeing that without software and firmware executing on the microprocessor, objects on the display screen of the computing device could not be controlled). As such, the Nintendo Switch has no "second means" under Gamevice's proposed construction and cannot infringe claim 16 or dependent claims 17 or 18.
>
> Claim 16 also requires that the "computing device" include a "plurality of sides, each of the plurality of sides cooperating with the electronic display screen of said computing device." Gamevice failed to prove that the Nintendo Switch meets this requirement. RX-1824C, Q693–715. As shown right, the inside edges of the upper housing (the purported "plurality of sides" of the purported "computing device") do not cooperate with the LCD. RX-1824C, Q714.

Resps. Br. at 84-85.

The Staff argues, in part:

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> As discussed above in Section III.A.7, the parties agree that the term "second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device" is a means-plus-function limitation subject to 35 U.S.C. § 112(f). Here, it is clear from the specification of the '393 patent that the function of "controlling a movement of a virtual object on displayed on said electronic display screen of said computing device" is a computer-implemented function. *See* RX-0060C (Stern WS) at Q/A 200-286. And, thus, because the '393 patent fails to disclose any algorithm to perform the claimed function, claim 16 and dependent claims 17-22 are indefinite. *See* Resps. P.H. Br. at 50-56; RX-0060C (Stern WS) at Q/A 281, 284.

Staff Br. at 62.

As ruled above, the administrative law judge has determined that (1) the term "second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device" is subject to § 112(f); (2) the relevant function is "controlling a movement of a virtual object displayed on said electronic display screen of said computing device"; and (3) there is no corresponding structure, rendering claims 16, 18, 20 and 22 indefinite.

However, if the term "second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device" is construed according to Gamevice's construction, where the function is "controlling a movement of a virtual object displayed on said electronic display screen of said computing device", and the disclosed structures are (1) a control module (120, 252, 278, 356, 402/404, 408/410, 502/504, 543, 544, or 546); or (2) a keyboard module (164/166, 226/228, or 280); and equivalents thereof, then Gamevice has shown that the Joy-Cons control a movement of virtual objects in a game on the LCD screen of the Nintendo Switch console. *See* CX-0001C (Singhose DWS) at Q/A 690-92.

Accordingly, it is determined that the Nintendo Switch does not satisfy this claim limitation under the adopted claim construction.

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6. said virtual object provided by an electronic game, said electronic game interacting with said central processing unit,

The Nintendo Switch satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 701-02. Nintendo does not contest that the Nintendo Switch includes this limitation. *See* Resps. Br. at 46-99.

7. wherein said second means is accommodated by said input device.

As ruled above, the administrative law judge has determined that (1) the term "second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device" is subject to § 112(f); (2) the relevant function is "controlling a movement of a virtual object displayed on said electronic display screen of said computing device"; and (3) there is no corresponding structure, rendering claims 16, 18, 20 and 22 indefinite.

However, if the term "second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device" is construed according to Gamevice's construction, where the function is "controlling a movement of a virtual object displayed on said electronic display screen of said computing device", and the disclosed structures are (1) a control module (120, 252, 278, 356, 402/404, 408/410, 502/504, 543, 544, or 546); or (2) a keyboard module (164/166, 226/228, or 280); and equivalents thereof, then Gamevice has shown that the "second means" in the Nintendo Switch is accommodated by the Joy-Cons, which are the input devices. *See* CX-0001C (Singhose DWS) at Q/A 701.

Accordingly, it is determined that the Nintendo Switch does not satisfy this claim limitation under the adopted claim construction.

* * *

It is therefore determined that the accused Nintendo Switch does not satisfy all limitations of claim 16 of the '393 patent.

J. Claim 17

The Nintendo Switch is accused of infringing dependent claim 17 of the '393 patent.

1. The apparatus of claim 16, in which the computing device having a length greater than its width, and wherein the first means for attaching the input device to a computing device comprising:

As discussed above, the accused Nintendo Switch does not satisfy all limitations of independent claim 16. The Nintendo Switch includes a computing device, where the computing device has a length greater than its width. *See* CX-0001C (Singhose DWS) Q/A 704-11. Nintendo does not contest that the Nintendo Switch satisfies this portion of the limitation. *See* Resps. Br. at 46-99.

2. a pair of confinement structures,

The construction of this claim term was discussed above. The claim term "confinement structures" is construed to mean "components that hold a computing device."

Under the adopted construction, the Nintendo Switch's rails do not satisfy the limitation because the rails are part of the computing device, and therefore cannot hold the computing device.

Gamevice argues that the side rails hold the computing device by being in pressing contact through screws with the Switch console's back cover, thus exerting a compressive force on the "computing device." *See* Compl. Br. at 73, 43. However, the specification describes confinement structures that apply "sufficient compressive load … on the computing device 302 to securely hold the computing device between the pair of confinement structures." JX-0001 ('393 patent) at col. 10, lns. 14-20. The specification does not describe a situation where the

"confinement structures" hold the computing device by being in pressing contact through screws. When a collection of components are securely screwed together to form a device, it is nonsensical to describe the attached outer components as "hold[ing]" the inner components. *See* RX-1824C (Stern RWS) at Q/A 376. The rails are attached to, and inset into, the console, and whereas the confinement structures described in the specification hold the computing device between them, the rails are simply part of the computing device itself. *See id.* at Q/A 376-77. As Dr. Stern testified, the rails are like bumpers of a car as they are structurally integral to the frame of a car. Stern Tr. 526-527. Even though a car may be lifted by its bumpers, one of ordinary skill in the art would not consider the bumpers to hold the rest of the car any more than the attached side mirrors do. *Id.*; RX-1824C (Stern RWS) at Q/A 377.

If, however, the rails are considered "confinement structures," separate from the "computing device," the administrative law judge finds that the rails of the Nintendo Switch console are "components that hold a computing device." As Dr. Singhose testified, the rails of the Nintendo Switch hold the computing device by being in pressing contact through screws with the Switch console's back cover. *See* CX-0001C (Singhose DWS) at Q/A 360-71, 712.

Accordingly, it is determined that the Nintendo Switch does not satisfy this claim limitation under the adopted claim construction.

3. the pair of confinement structures interacting with the computing device and adjacent at least two opposing sides of the computing device, the at least two opposing sides adjacent the electronic display screen and define end points of the length of the computing device,

The construction of this claim term was discussed above. The claim term "confinement structures" is construed to mean "components that hold a computing device." The parties have agreed that the term "adjacent" means "nearby but not necessarily next to." JX-0014.

Under the adopted construction, the Nintendo Switch's rails do not satisfy the limitation because the rails are part of the computing device, and therefore are not "adjacent at least two opposing sides of the computing device, the at least two opposing sides adjacent the electronic display screen and define end points of the length of the computing device," because the rails are portions of the computing device itself.

If, however, the rails are considered "confinement structures," separate from the "computing device," the administrative law judge finds that the rails of the Nintendo Switch console are adjacent at least two opposing sides of the computing device, the at least two opposing sides adjacent the electronic display screen and define end points of the length of the computing device. As Dr. Singhose testified, the Nintendo Switch console's rails are adjacent two opposing sides of the alleged computing device. *See* CX-0001C (Singhose DWS) at Q/A 410.

Accordingly, it is determined that the Nintendo Switch does not satisfy this claim limitation under the adopted claim construction.

4. the pair of confinement structures adapt to and are in pressing contact with said end points of the length of the computing device,

The administrative law judge finds that the Nintendo Switch does not include this feature of claim 17. *See* RX-1824C (Stern RWS) at Q/A 763.

Gamevice argues, in part:

> In the Nintendo Switch, the side rails are in pressing contact against the back cover of the Switch console via screws. *See* CX-0001C at Q/A 723-724; CX-0135C at 28. For example, as shown in CDX-0001C at 120, the side rails are attached to the side tabs of the back cover of the Switch console through screws. This shows that the side rails adapt to and are in pressing contact with the end points of the length of the computing device. The side rails sit on the flanges of the back cover of the Switch console, which are part of the end points of the length of the

> computing device.. *See* CX-0001C at Q/A 723. Contrary to Nintendo's position, the claim term "adapt" does not require changeability and is not related to the "the structural bridge configured for adaptation to a computing device" limitation recited in claim 8. *See id. at* Q/A 725. Moreover, as discussed with respect to claim limitation [16a], the side rails adapt to the back cover of the Switch console because screws go through the threaded holes in the side tabs of the back cover, so as to change the compressive load exerted on it. *See id*. This compressive load creates a pressing contact between the side rails and the back cover of the Switch console. *See id. at* Q/A 725-726.

Compl. Br. at 74.

Nintendo argues, in part:

> Claim 17 includes an additional requirement for the "confinement structures"—they must "adapt to and [be] in pressing contact with" the "end points of the length of the computing device." But the rails do not "adapt." As with "configured for adaptation," "adapt" requires change/adjustment. RX-1824C, Q763; *see* Section 9.6. But the rails and the components they attach to are all of fixed size and do not "adapt to" the purported computing device. *Id.*, Q760–67. Nor are the rails in "pressing contact" with the purported "computing device." "Pressing contact" requires a compressive load along the length of the computing device. *Id.*, Q765. As discussed above regarding "confinement structures," there is no "compressive load" across the purported computing device provided by the rails. *Id.*, Q766.

Resps. Br. at 84.

The Staff argues, in part:

> Claim 17 recites that "the pair of confinement structures adapt to and are in pressing contact with said end points of the length of the computing device." JX-0001 ('393 patent) at cl. 17. Gamevice contends that this limitation is met because "the side rails are in pressing contact against the back cover of the Switch console via screws. This shows that the side rails adapt to and are in pressing contact with the end points of the length of the computing device." Compl. P.H. Br. at 69-70. Conversely, Nintendo contends that the alleged "confinement structures" do not adapt. Resps. P.H. Br. at 87. The Staff agrees with Nintendo. Gamevice fails to afford meaning to the term "adapt." *Id.* The alleged "confinement structures" are configured for the Nintendo Switch Console device and thus fixed. They do not "adapt." *See id.*
>
> Accordingly, the accused Nintendo products do not satisfy this limitation of claim 17 of the '393 patent.

Staff Br. at 64.

The construction of this claim term was discussed above. The claim term "confinement structures" is construed to mean "components that hold a computing device."

As discussed above, one skilled in the art would not understand Gamevice's selected components of the Nintendo Switch device to constitute a device. *See* JX-0001 ('393 patent) at col. 4, lns. 43-45. The Nintendo Switch console's rails do not satisfy the limitation because the rails are part of the computing device, and therefore are not "[a] pair of confinement structures [that] adapt to and are in pressing contact with said end points of the length of the computing device," because the rails are portions of the computing device itself.

If, however, the rails are considered "confinement structures," separate from the "computing device," the administrative law judge finds that the rails of the Nintendo Switch do not "adapt." As with the limitation "configured for adaptation," "adapt" requires change/adjustment. *See* RX-1824C (Stern RWS) at Q/A 763. The alleged "confinement structures" are fixed rails that do not "adapt."

Accordingly, it is determined that the Nintendo Switch does not satisfy this claim limitation under the adopted claim construction.

5. each of the pair of confinement structures comprising a communication link, each of the communication links configured for electronic communication with the central processing unit;

As an initial matter, the construction of "confinement structures" was discussed above. The claim term "confinement structures" is construed to mean "components that hold a computing device."

No party requested a construction of "electronic communication." *See* JX-0014. However, the claims distinguish between the recited terms "electronic communication" and

"electrical communication." *See* JX-0001 ('393 patent) at claim 17. Inasmuch as claim 17 uses two different terms, they are presumed to have different meanings. *Helmsderfer v. Bobrick Washroom Equipment, Inc.*, 527 F.3d 1379 (Fed. Cir. 2008) ("Our precedent instructs that different claim terms are presumed to have different meanings.") (citing *Applied Med. Res. Corp. v. U.S. Surgical Corp*., 448 F.3d 1324, 1333 n. 3 (Fed. Cir. 2006) ("[T]he use of two terms in a claim requires that they connote different meanings...."); *CAE Screenplates Inc. v. Heinrich Fiedler GmbH*, 224 F.3d 1308, 1317 (Fed. Cir. 2000) ("In the absence of evidence to the contrary, we must presume that the use of these different terms in the claims connotes different meanings.").

The administrative law judge finds that there is a difference between electrical communication and electronic communication. As Dr. Stern testified, electronic communication requires components that exchange information, not just electrons. *Id.* at Q/A 525. A network card in a computer may be said to be in electronic communication with the server with which it is communicating because each end of that communication "understands" and can act on the information being transmitted and received. *Id.* To one of ordinary skill in the art, the cables carrying those communications, such as an ethernet cable running from the wall to the computer for example, are only in electrical communication, not electronic communication. *See id.*

Gamevice fails to draw any meaningful distinction between "electronic communication" and "electrical communication." *See* Compl. Br. at 45; CX-0001C (Singhose WS) at Q/A 413-22. Dr. Singhose appears to equate electrical and electronic communication. *See id.* To show "electrical communication," Dr. Singhose testified that "the upper frame supports and promotes electrical communication through the flexible printed circuits and the PCB. This electrical communication is achieved through the flexible printed circuits connecting the pin

connectors on the PCB." CX-0001C (Singhose DWS) at Q/A 443. To show "electronic communication," he identified "[t]he flexible printed circuits, which [he] referred to as the communication links connect to the PCB, to enable electronic communication with the computing device." *Id.* at Q/A 415. Gamevice thus relies upon the same flexible printed circuits for both "electronic communication" and "electrical communication" without any meaningful basis to overcome the presumption that these terms connote different meanings.

Under the adopted construction, the Nintendo Switch console's rails do not satisfy the limitation because the rails are part of the computing device, and therefore are not "confinement structures," because the rails are portions of the computing device itself.

If, however, the rails are considered "confinement structures," separate from the "computing device," the administrative law judge finds that Gamevice has not shown that the rails of the Nintendo Switch comprise a communication link, each of the communication links configured for electronic communication with the computing device. The administrative law judge finds that a person of skill in the art would recognize a difference between electrical communication and electronic communications. *See* RX-1824C (Stern RWS) at Q/A 521-30. Gamevice relies on conclusions from Dr. Singhose that the signals are electronic communication. *See* CX-0001C (Singhose DWS) at Q/A 415-17, 419-22. As Dr. Stern testified, however, [[redacted]] *See* RX-1824C (Stern RWS) at Q/A 774-77.

Accordingly, it is determined that the Nintendo Switch does not satisfy this claim limitation under the adopted claim construction.

6. a rigid structural bridge disposed between and secured to the pair of confinement structures,

The construction of this claim term was discussed above. The claim term "structural bridge" is construed to mean "a physical apparatus that connects other components."

Gamevice argues that this limitation is satisfied by the Nintendo Switch's upper frame, which is disposed between and secured to the Nintendo Switch's side rails using screws. *See* Compl. Br. at 46-47. However, the specification only discloses the structural bridge as separate from the computing device. For example, figures 1–4, 8–10, 12–16, 25, 29, 30, 32–34, 36, and 39, show the computing device and a separate input device or game controller with a structural bridge (starting at Fig. 13). Similarly, figures 5, 11, 17–24, 26–28, 31, 35, 37–38, and 43–44, show only the input device or game controller (or components of it) and no computing device at all. As Dr. Singhose testified, each of these figures show the structural bridge as part of an input device and not as an integrated component of the computing device. Singhose Tr. 252-257.

Given that the claims separately recite the "computing device" and "structural bridge" and that the specification exclusively describes a structural bridge as separate from, and external to, the computing device, the administrative law judge finds that this limitation is not satisfied by the same structure as the computing device itself, of which the upper frame is a core, functional element. *See* Stern Tr. 640-643; Singhose Tr. 246; RX-1824C (Stern RWS) at Q/A 207-14, 278, 294. The administrative law judge thus finds the upper frame is not a separate structure from the console.

If, however, the upper frame is considered the "structural bridge," separate from the "computing device," the administrative law judge finds that Gamevice has not shown that the Nintendo Switch comprises a physical apparatus that connects other components. One of

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ordinary skill in the art would understand that "a physical apparatus that connects other components" in view of the specification could only include a component that is part of the input device and is not part of or integrated with the computing device. Singhose Tr. 252-257; RX-1824C (Stern RWS) at Q/A 298-316. Unlike all the structural bridges shown in the specification, the upper frame is part of the Nintendo Switch itself. *See* RX-1824C (Stern RWS) at Q/A 317-19. Accordingly, the upper frame assembly is not a "structural bridge."

Accordingly, it is determined that the Nintendo Switch does not satisfy this claim limitation under the adopted claim construction.

7. the rigid structural bridge includes at least a passageway between the pair of confinement structures,

The construction of these claim terms was discussed above. The claim term "structural bridge" is construed to mean "a physical apparatus that connects other components," and the claim term "passageway" is construed to mean "a space that accommodates a communication wire."

As discussed above, one skilled in the art would not understand Gamevice's selected components of the Nintendo Switch console to constitute a device. *See* JX-0001 ('393 patent) at col. 4, lns. 43-45. As with Gamevice's argument regarding the alleged "confinement structures," Gamevice again claims that an internal component of the console, here the upper frame, is the "structural bridge." As Dr. Stern testified, however, "[W]hen the Nintendo Switch, in its fully functional form with all of its parts intact, is considered the 'computing device,' there is no other element that can satisfy the structural bridge limitation." RX-1824C (Stern RWS) at Q/A 293. The component identified by Gamevice and Dr. Singhose as the "structural bridge" is an integral

part of the Nintendo Switch console, and as part of the "computing device" it cannot also satisfy the "structural bridge" limitation. *See id.*

If, however, the upper frame is considered the "structural bridge," separate from the "computing device," the administrative law judge finds that Gamevice has not shown that the upper frame of the Nintendo Switch comprises a passageway between the pair of confinement structures. Gamevice argues that the portion of the upper frame identified above as the passageway accommodates a flexible printed circuit, [[redacted]]. *See* Compl. Br. at 47-48. However, as Dr. Stern testified, the flexible printed circuits ("FPC") exhibited a circuitous route, and "the purported 'structural bridge' includes items that interfere with the FPC," as opposed to accommodating it. RX-1824C (Stern RWS) at Q/A 471-72, 482-83.

Accordingly, it is determined that the Nintendo Switch does not satisfy this claim limitation under the adopted claim construction.

8. the passageway promotes electrical communication between the communication link of a first confinement structure of the pair of confinement structures and the computing device, the passageway further promotes electrical communication between the communication link of a second confinement structure of the pair of confinement structures and the computing device;

The construction of this claim term was discussed above. The claim term "passageway" is construed to mean "a space that accommodates a communication wire."

Gamevice argues that the upper frame has a tray-like structure disposed between the side rails, and the PCBs are located in that space and the flexible printed circuits from the side rails connect to pin connectors on the PCB, such that the corresponding portion of the upper frame supports and promotes electrical communication between the flexible printed circuits and the

PCB. *See* Compl. Br. at 47-48. However, as there is no passageway in the upper frame, there is nothing that can promote electrical communication. *See* RX-1824C (Stern RWS) at Q/A 505-08. Indeed, the negative space that Gamevice identifies as a passageway acts as an insulator, preventing electrical communication. *See id.* at Q/A 508-09.

As Dr. Stern testified, "Even if Dr. Singhose identified an area that was considered a 'passageway'—and he has not and cannot—there is nothing about that area that 'promotes electrical communication' as required by claims 1 and 17." RX-1824C (Stern RWS) at Q/A 504. One of ordinary skill in the art would not understand that the negative space Dr. Singhose identifies as the "passageway" promotes electrical communication between the rails and the computing device because the identified "passageway" does not enhance or otherwise promote electrical communication. *See id.* at Q/A 508.

Accordingly, it is determined that the Nintendo Switch does not satisfy this claim limitation under the adopted claim construction.

9. wherein the input device is a pair of control modules,

The Nintendo Switch includes a pair of electronic game control modules. *See* CX-0001C (Singhose DWS) at Q/A 462-65. Nintendo does not contest that the Nintendo Switch includes this limitation. *See* Resps. Br. at 46-99.

10. each control module of the pair of control modules mechanically interacting with a corresponding confinement structure of the pair of confinement structures,

The Nintendo Switch satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 466-75. Nintendo does not contest that the Nintendo Switch includes this limitation. *See* Resps. Br. at 46-99.

11. wherein each control module is a separate and distinct structure from the pair of confinement structures, forming no structural portion of the pair of confinement structures,

The Nintendo Switch includes a pair of electronic game control modules, where each electronic game control module is a separate and distinct structure from each of their corresponding confinement structures, forming no structural portion of their corresponding confinement structures. *See* CX-0001C (Singhose DWS) at Q/A 480-82. Nintendo does not contest that the Nintendo Switch includes this limitation. *See* Resps. Br. at 46-99.

12. in which each of the pair of confinement structures are separate and distinct structures from the structural bridge, forming no structural portion of the structural bridge.

The construction of these claim terms was discussed above. The claim term "confinement structures" is construed to mean "components that hold a computing device," and the claim term "structural bridge" is construed to mean "a physical apparatus that connects other components."

Regarding "separate and distinct" structures, the specification recites: "Preferably, the input module apertures 224, are adjacent each of the at least two opposing sides of the plurality of sides 304, of the computing device 302, and wherein the input device 356, or such as 120 of Fig. 11, or 256 of Fig. 13, is a separate and distinct structure from the communication port 310, forming no structural portion of the communication port." JX-0001 ('393 patent) at col. 9, lns. 47-53. In this context the specification is describing modules, such as joysticks, keyboards, etc., that, in one embodiment, may be removable. *See id.* at col. 5, lns. 6-12, col. 9, lns. 47-53, Fig. 11; RX-1824C (Stern RWS) at Q/A 441-42.

Under the adopted constructions, the Nintendo Switch console's rails do not satisfy the limitation because the rails are part of the computing device, and the Nintendo Switch's upper

frame is also part of the computing device. Therefore, the Nintendo Switch comprises neither a pair of confinement structures nor a structural bridge, separate and apart from the computing device.

If, however, the rails are considered "confinement structures," separate from the "computing device," and the upper frame is considered the "structural bridge," separate from the "computing device," the administrative law judge finds that Gamevice has not shown that each of the pair of confinement structures are separate and distinct structures from the structural bridge, forming no structural portion of the structural bridge. In contrast to the structures described in the '393 patent as "separate and distinct," the rails are a permanent part of the Nintendo Switch console and a permanent part of the upper frame assembly to which they are attached. *See* RX-1824C (Stern RWS) at Q/A 442, 451. Once attached, they are not intended to be removed during normal use of the Nintendo Switch, as one of ordinary skill would understand is required for "separate and distinct" components in the context of the '393 patent. *Id.* Indeed, the rails are directly attached to the upper frame assembly, and once assembled they are no longer "separate and distinct" from, and they form a "structural portion of," the upper frame assembly. *Id.* at Q/A 447-48. The rails are attached to the upper frame assembly by a series of screws, each tightened to a precise level of torque. *Id.* at Q/A 405; RX-0994C at 28, 40. One of ordinary skill in the art would understand that when one component is fixedly attached to another component, as the rails are to the upper frame assembly, the structural properties of both components are affected. RX-1824C (Stern RWS) at Q/A 448. The rails, when attached to the upper frame assembly, form a structural portion of the upper frame assembly. *Id*.

Accordingly, it is determined that the Nintendo Switch does not satisfy this claim limitation under the adopted claim construction.

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* * *

It is therefore determined that the accused Nintendo Switch does not infringe asserted dependent claim 17 of the ’393 patent.

K. Claim 18

The Nintendo Switch is accused of infringing dependent claim 18 of the ’393 patent.

1. The apparatus of claim 17, in which the second means for controlling movement of the virtual object displayed on said electronic display comprising:

As discussed above, the accused Nintendo Switch does not satisfy all limitations of dependent claim 17, or all limitations of independent claim 16, upon which claim 17 depends.

As ruled above, the administrative law judge has determined that (1) the term “second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device” is subject to § 112(f); (2) the relevant function is “controlling a movement of a virtual object displayed on said electronic display screen of said computing device”; and (3) there is no corresponding structure, rendering claims 16, 18, 20 and 22 indefinite.

However, if the term “second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device” is construed according to Gamevice’s construction, where the second means refers to a pair of control modules providing a plurality of instructional input devices (*e.g.*, joysticks, keys, button, triggers, switches), where each of the pair of control modules is in electronic communication with the communication link of its corresponding confinement structure and is configured for electronic communication with the central processing unit, where the instructional input devices in conjunction with the central processing unit control movement of the virtual object displayed on the electronic display screen,

then Gamevice has not shown that each Joy-Con in the pair of Joy-Cons is in electronic communication with the communication link of its corresponding side rails. *See* RX-1824C (Stern RWS) at Q/A 528. As explained further below, Gamevice has not shown that each of the pair of control modules is in electronic communication with the communication link of its corresponding confinement structure.

Accordingly, it is determined that the Nintendo Switch does not satisfy this claim limitation under the adopted claim construction.

2. each control module of the pair of control modules is in electronic communication with the communication link of its corresponding confinement structure,

As an initial matter, no party requested a construction of "electronic communication." *See* JX-0014. However, the claims distinguish between the recited terms "electronic communication" and "electrical communication." *See* JX-0001 ('393 patent) at claims 17 and 18. Inasmuch as claim 18 uses the term "electronic communication", as opposed to the term "electrical communication" recited in claim 17, upon which claim 18 depends, the two terms are presumed to have different meanings. *Helmsderfer v. Bobrick Washroom Equipment, Inc.*, 527 F.3d 1379 (Fed. Cir. 2008) ("Our precedent instructs that different claim terms are presumed to have different meanings.") (citing *Applied Med. Res. Corp. v. U.S. Surgical Corp*., 448 F.3d 1324, 1333 n. 3 (Fed. Cir. 2006) ("[T]he use of two terms in a claim requires that they connote different meanings...."); *CAE Screenplates Inc. v. Heinrich Fiedler GmbH*, 224 F.3d 1308, 1317 (Fed. Cir. 2000) ("In the absence of evidence to the contrary, we must presume that the use of these different terms in the claims connotes different meanings.").

Gamevice fails to draw any meaningful distinction between "electronic communication" and "electrical communication." *See* Compl. Br. at 45; CX-0001C (Singhose WS) at Q/A

413-22. Dr. Singhose appears to equate electrical and electronic communication. *See id.* To show "electrical communication," Dr. Singhose testified that "the upper frame supports and promotes electrical communication through the flexible printed circuits and the PCB. This electrical communication is achieved through the flexible printed circuits connecting the pin connectors on the PCB." CX-0001C (Singhose DWS) at Q/A 443. To show "electronic communication," he identified "[t]he flexible printed circuits, which [he] referred to as the communication links connect to the PCB, to enable electronic communication with the computing device." *Id.* at Q/A 415. Gamevice thus relies upon the same flexible printed circuits for both "electronic communication" and "electrical communication" without any meaningful basis to overcome the presumption that these terms connote different meanings.

Nintendo contends that a person of skill in the art would recognize a difference between electrical communication and electronic communications. Resps. Br. at 81; RX-1824C (Stern RWS) at Q/A 521-30. According to Dr. Stern, Gamevice has not shown that the Joy-Con Controllers are in "electronic communication" with the flexible printed circuits of the rails. *Id.* at Q/A 530. As Dr. Stern testified, one of ordinary skill in the art understands that "'electronic communication' uses electronic circuits to transmit, process and receive information." *Id.* at Q/A 525. In contrast, electrical communication is "something more akin to what happens when you plug a lamp into a wall socket." *Id.*

Gamevice argues that the Nintendo Switch's "side rails have connectors that engage with the connectors on the Joy-Cons to send signals containing electronic information (*e.g.*, bits or bytes of digital information) through the flexible printed circuits [[redacted]]. Compl. Br. at 50. However, while the Joy-Cons are in electronic communication with the Nintendo Switch, RX-1824C (Stern RWS) at

Q/A 528, Gamevice has not demonstrated that they are in electronic communication with the FPCs attached to the rails.[[redacted]]*Id.*

Accordingly, the accused Nintendo products do not satisfy the "electronic communication" limitation of claim 18.

3. each of the pair of control modules provides a plurality of instructional input devices,

The Nintendo Switch satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 746-47. Nintendo does not contest that the Nintendo Switch includes this limitation. *See* Resps. Br. at 46-99.

4. wherein said instructional input devices are adjacent each of the at least two opposing sides of the computing device, and wherein the instructional input devices in conjunction with the central processing unit control movement of the virtual object displayed on the electronic display screen.

The Nintendo Switch satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 748-49. Nintendo does not contest that the Nintendo Switch includes this limitation. *See* Resps. Br. at 46-99.

* * *

It is therefore determined that the accused Nintendo Switch does not infringe asserted dependent claim 18 of the '393 patent.

L. Indirect Infringement

Gamevice argues, in part:

> The evidence showed that Nintendo has indirectly infringed and continues to indirectly infringe the asserted claims by inducing others to infringe. 35 U.S.C. § 271(b); *DSU Med. Corp. v. JMS Co., Ltd.*, 471 F.3d 1293, 1306 (Fed. Cir. 2006)

(*en banc*); *Ricoh Co., Ltd. v. Quanta Computer Inc.*, 550 F.3d 1325, 1341 (Fed. Cir. 2008) (quoting *Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*, 545 U.S. 913, 935 (2005)). At a minimum, Nintendo promotes, offers to sell, and sells the accused products with explicit instructions to assemble them in the infringing combinations explained above. [ ] with explicit instructions to assemble the accused products in either (i) handheld mode with the Joy-Con controllers attached to the console, or (ii) TV or tabletop mode with the Joy-Con controllers attached to the Joy-Con Grip or Joy-Con charging Grip, combinations that are covered by the asserted claims, as explained above. CX-0001C, Singhose WS Q/A 751-755. Nintendo's internal documents demonstrate that it encourages and specifically intends for customers and end-users to directly infringe the asserted claims of the '393 patent. CX-0001C at Q/A 756-761; CDX-0001C.126-128; *see also* CX-0120C [ ]

As the evidence showed, Nintendo also operates brick-and-mortar stores in the United States, such as the one in New York and the employees-only store in Redmond, Washington. These stores carry the accused products and at least invite, direct, instruct, and demonstrate to customers and end-users how to use the accused products in an infringing manner. CX-0001C at Q/A 762. Nintendo also provides repair and testing services for the accused products through "retail representatives," and invites people to Nintendo-sponsored events where the accused products are used in an infringing manner. CX-0001C at Q/A 762-764, 767-768; *see also* CX-0122, CX-0123, CX-0124, CX-0125, CX-0126, CX-0127, CX-0128 [( ).] Nintendo also distributes instructional videos on how to use the accused products in an infringing manner. CX-0001C at Q/A 765-766; *see also* CPX-0018C, CPX-0019C. Nintendo intends and instructs its customers to combine the Joy-Cons with the Switch console or the Joy-Con Grip or the Charging Grip in an infringing manner. Thorng Tr. 414:1-415:22.

The evidence showed that Nintendo was actually and constructively on notice of Gamevice's rights in the '393 patent and the basis for Nintendo's infringement of the asserted claims. Nintendo's counsel sent a letter to Gamevice's counsel indicating that Nintendo had knowledge of the '393 patent at least as early as November 5, 2019. Alternatively, Nintendo was aware of its infringement of the '393 patent and the basis thereof through at least the filing and service of the complaint in this investigation on March 27, 2020. CX-0001C at Q/A 769. It was also constructively aware of the '393 patent through Gamevice's virtual patent marking posted on its website. CX-0001C at Q/A 770-771; *see* CX-0181 (Gamevice Virtual Patent Marking). Moreover, Nintendo cited to patents in the same family as the '393 patent during prosecution of Nintendo's own patents. CX-

0001C at Q/A 772. Moreover, Nintendo was aware of the '393 patent through its lawsuit against Gamevice in the Central District of California filed on August 9, 2017 concerning the '119 patent, which is a priority patent for the '393 patent. CX-0001C at Q/A 772. Despite its knowledge of the '393 patent and Gamevice's infringement claims, Nintendo continues to promote, offer to sell, and sell the accused products, willfully blinding itself to the asserted claims of the '393 patent and the infringing nature of the accused products. CX-0001C at Q/A 773.

The evidence also showed that Nintendo contributes to the infringement of the '393 patent because it supplies a material component of the accused products, knowing that they are especially made or adapted for use in the infringement. CX-0001C at Q/A 774; 35 U.S.C. § 271(c); *see also Cross Med. Prods., Inc. v. Medtronic Sofamor Danek, Inc.*, 424 F.3d 1293, 1312 (Fed. Cir. 2005). The accused products, namely the Switch console, the Joy-Con controllers, and the Joy-Con Grips (regular and charging), are especially made to be combined with each other to form one of the infringing combinations described above. CX-0001C at Q/A 775-776. They are not staple articles of commodities of commerce having substantial non-infringing use because they cannot be used for any purpose other than for creating infringing combinations. CX-0001C at Q/A 778. Any one of these components that might be separately sold is not suitable for substantial non-infringing use and they embody a material part of the inventions of the '393 patent. For example, the Joy-Cons must be attached to the Switch console or the Charging Grip to recharge. *See id*. Nintendo is aware that the accused products are especially made or especially adapted for use in infringement, and has at least willfully blinded itself to the infringing nature of the accused products. CX-0001C at Q/A 777.

Nintendo argues that the documents cited by Gamevice cannot show indirect infringement because they predate the issuance of the '393 patent, but this argument lacks merit because Nintendo continues to carry on the same activities even after becoming aware of the asserted patent. CX-0001C at Q/A 779. Nintendo fails to provide any evidence to the contrary. Furthermore, Nintendo's substantial non-infringing use arguments lack merit because the Joy-Cons must be periodically attached to the Switch console or the Charging Grip (forming infringing combinations) to recharge and continue to use them. Also, the use of a Switch console with a Black Wireless Pro Controller does not constitute a "substantial" non-infringing use because it is sold separately, and a user is less likely to purchase another controller at an additional cost when the accused products can be used to play games with the components that are already included in the as-imported, as-sold box. CX-0001C at Q/A 780; Thorng Tr. 417:15-418:21. Nintendo fails to provide any evidence to the contrary.

Compl. Br. at 75-78.

Nintendo argues, in part:

The two forms of indirect infringement at issue in this investigation are induced infringement (§ 271(b)) and contributory infringement (§ 271(c)).

To establish liability for induced infringement, "the patentee must show, first that there has been direct infringement, and second that the alleged infringer knowingly induced infringement and possessed specific intent to encourage another's infringement." *MEMC Elec. Materials, Inc. v. Mitsubishi Materials Silicon Corp.*, 420 F.3d 1369, 1378 (Fed. Cir. 2005) (internal quotation marks omitted). Because "[l]iability for inducement can only attach if the defendant knew of the patent and knew as well that the induced acts constitute patent infringement," a reasonable belief of non-infringement defeats such a claim. *Omega Patents, LLC v. CalAmp Corp.*, 920 F.3d 1337, 1349 (Fed. Cir. 2019) (internal quotation marks omitted). "To establish liability for contributory infringement, a patent owner must show [] that there are no substantial noninfringing uses for the accused product. A noninfringing use is substantial when it is not unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental." *Grunenthal GmbH v. Alkem Labs. Ltd.*, 919 F.3d 1333, 1340 (Fed. Cir. 2019) (citation and quotation marks omitted). "[C]ontributory infringement requires knowledge of the patent in suit and knowledge of patent infringement." *Commil USA, LLC v. Cisco Sys., Inc.*, 135 S. Ct. 1920, 1926 (2015).

Independent claims 1, 8, and 12 require a "combination." JX-1, claims 1, 8, 12. For claims 1 and 8, Gamevice asserts this limitation is met by a "combination" of the Joy-Con and the Nintendo Switch console. For claim 12, Gamevice asserts this limitation is met by a "combination" of the Joy-Con and either the Joy-Con Grip or Joy-Con Charging Grip. The evidence showed, however, that each of the Joy-Con, the Switch Console, and the Joy-Con Grip are separately packaged and not in any way attached, connected, or otherwise placed in contact with each other when imported into the United States. RX-1824C, Q783–85. Further, the Joy-Con Charging Grip is a separate accessory that is not included with the Nintendo Switch system and is sold without Joy-Con. RX-61C, Q69–79. As such, Gamevice failed to prove direct infringement of claims 1, 8, and 12 (and their dependent claims) because as imported and sold, the Switch Console and Joy-Con are not a "combination."

Nor did Gamevice show indirect infringement, which requires showing underlying direct infringement. RX-1824C, Q786–91. Gamevice did not provide any evidence that any particular individual has made, or even must make, the accused combination of the Joy-Con and the Nintendo Switch console, Joy-Con Grip, or Joy-Con Charging Grip. RX-1824C, Q788. Indeed, there are many substantial (*i.e.*, non-illusory) non-infringing ways to play on the Nintendo Switch without ever attaching the Joy-Con to either the Nintendo Switch console or the Joy-Con Grip or Joy-Con Charging Grip. *Id.* A user may use the Nintendo Switch in either tabletop or TV mode, where the Joy-Con are not attached to the Switch console. *Id.*, Q789. Thus, players in at least two of the three modes need never attach the Joy-Con to the Nintendo Switch or the Joy-Con Grip or Joy-Con

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> Charging Grip to make the allegedly infringing combination. *Id.* In fact, a Joy-Con Strap is provided with the Nintendo Switch, which is exclusively used when the Joy-Con is not attached to the Switch console. *Id.*; RX-61C, Q74–76. When a Joy-Con Strap is attached to a Joy-Con, the Joy-Con cannot also be attached to the Nintendo Switch, a Joy-Con Grip, or a Joy-Con Charging Grip. RX-1824C, Q789; RX-61C, Q76. Indeed, the Joy-Con Grip sold with the console never needs to be used at all, and even a Joy-Con Charging Grip would never need to be combined with Joy-Con. Thus, Gamevice cannot and did not offer evidence of the required combinations.
>
> Finally, Gamevice cannot carry its burden to show the required intent. A reasonable belief of non-infringement can defeat a claim for inducement, *see Omega Patents*, 920 F.3d at 1349, and as explained above, Nintendo has numerous (correct) bases to dispute infringement. Moreover, Gamevice has no evidence of intent, only potential knowledge of the '393 patent. "[M]ere knowledge of possible infringement is not enough." *Enplas Display Device Corp. v. Seoul Semiconductor Co.*, 909 F.3d 398, 407–408 (Fed. Cir. 2018) ("Thus, specific intent and action to induce infringement must be proven." (internal quotation marks omitted)); *Global-Tech Appliances, Inc. v. SEB S.A.*, 563 U.S. 754, 766 (2011) ("[W]e now hold that induced infringement under § 271(b) requires knowledge that the induced acts constitute patent infringement."); *Commil*, 135 S. Ct. at 1926 ("[L]iability for inducing infringement attaches only if the defendant knew of the patent and that the induced acts constitute patent infringement." (internal quotation marks omitted)). Thus, Gamevice cannot establish inducement.

Resps. Br. at 97-99.

The Staff argues, in part:

> Gamevice contends that Nintendo indirectly infringes the asserted claims of the '393 patent by: (i) inducing others to infringe the '393 patent; and (ii) contributing to the infringement supplying a material component of the accused products, knowing that they are especially made or adapted for use in infringing the '393 patent. Both induced and contributory infringement require evidence of direct infringement by another. *See Enplas Display Device Corp. v. Seoul Semiconductor Co., Ltd.*, 909 F.3d 398, 407 (Fed. Cir. 2018), *cert. denied*, 140 S. Ct. 480, 205 L. Ed. 2d 268 (2019) ("In order to succeed on a claim of inducement, the patentee must show, first that there has been direct infringement …"); *Fujitsu Ltd. v. Netgear Inc.*, 620 F.3d 1321, 1326 (Fed. Cir. 2010) ("To establish contributory infringement, the patent owner must show…that there is direct infringement…."). For the reasons set forth above, Gamevice has failed to show direct infringement of any claim. As such, Nintendo cannot infringe by inducement or contributorily infringe. *See* Resps. P.H. Br. at 107-109.

Staff Br. at 67.

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Nintendo argues that Gamevice has not adduced evidence that Nintendo was aware of the asserted patent prior to this investigation. However, with respect to "knowledge of the asserted patent" requirement, the Commission has held that service of a section 337 complaint provides knowledge of the asserted patent. *See Certain Beverage Brewing Capsules, Components Thereof, and Products Containing the Same*, Inv. No. 337-TA-929, Comm'n Op., at 19 (Apr. 5, 2016) (EDIS Doc. ID No. 577827). Therefore, the complaint satisfies the "knowledge of the patent requirement" for induced infringement.

Nintendo contends that Gamevice cannot show direct infringement because the accused products are separately packaged, as imported, and thus do not satisfy the "combination" limitation of claims 1, 8, and 12. *See* Resps. Br. at 97-99. However, Nintendo operates brick-and-mortar stores in the United States that instruct and demonstrate to customers and end-users how to use the accused products in an infringing manner. *See* CX-0001C (Singhose DWS) at Q/A 762. Nintendo also provides repair and testing services for the accused products through "retail representatives," and invites people to Nintendo-sponsored events where the accused products are used in an infringing manner. *See id.* at Q/A 762-64, 767-68. Nintendo intends and instructs its customers to combine the Joy-Cons with the Switch console or the Joy-Con Grip or the Charging Grip in an infringing manner. Thorng Tr. 414-415. The administrative law judge thus finds that Nintendo promotes, offers to sell, and sells the accused products with explicit instructions to assemble them in the allegedly infringing combinations.

Nevertheless, as found above, there is no direct infringement because Gamevice has not shown that Nintendo's accused products satisfy all the limitations of the asserted claims of the '393 patent. The administrative law judge therefore finds that Nintendo does not infringe by inducement or contributory infringement.

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The administrative law judge further finds that the accused Nintendo products are not capable of a substantial non-infringing use. As Dr. Singhose testified, the accused products are not staples of commerce, and were especially adapted for use in the accused combinations. *See* CX-0001C (Singhose DWS) at Q/A 775-78. Nonetheless, as discussed above, the accused Nintendo products do not infringe any claim of the '393 patent. Absent a showing of direct infringement, there can be no contributory infringement. *See Fujitsu Ltd. v. Netgear Inc.*, 620 F.3d 1321, 1326 (Fed. Cir. 2010).

VII. Domestic Industry (Technical Prong)

Gamevice contends that: (i) its Gamevice for iPhone products satisfy all limitations of dependent claims 21 and 22 of the '393 patent, *see* Compl. Br. at 81; (ii) its Gamevice for Android products satisfy all limitations of dependent claims 21 and 22 of the '393 patent, *see id.* at 88-89; (iii) its Gamevice for iPad products satisfy all limitations of claims 8 and 19-22 of the '393 patent, *see id.* at 93; and (iv) its Kishi products satisfy all limitations of claims 8-11 and 19-22 of the '393 patent, *see id.* at 102-03.

A. Representative Products

Nintendo argues, in part:

> Gamevice claims that all of its products are DI products, but Dr. Singhose only actually analyzed four, claiming they are "representative" of all others. CX-1C, Q786, 909, 1016, 1180. Dr. Singhose relies on a discussion from Philip Hyun as his only evidence that the four devices are representative of others. *Id.* Mr. Hyun is not a designer of the DI products, is not a listed inventor of the '393 patent, and admitted that he does not know the legal aspects of whether a product constitutes a DI product. Tr. 113:16–20; CX-3C, Q8. Mr. Hyun also testified that there are differences between each product and did not specify how "minor." Tr. 121:12–14. Further, Mr. Hyun's allegations are wholly unsupported. Mr. Hyun's testimony cites to various testing reports but does not explain how these testing reports support his conclusory statements. *See, e.g.*, CX-3C, Q23–24. They do not, as confirmed by Dr. Stern. RX-1824C, Q807–9, 878–81, 915–17, 999–1000. In some cases, it is clear the "representative" products are not, in fact, representative. RX-1824C,

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Q803–09, 875–81, 911–19.

Resps. Br. at 177.

Gamevice argues, in part:

> The evidence showed that the Gamevice for iPhone products practice claims 21-22 of the '393 patent. The DI analysis of the Gamevice for iPhone is based on GV157A, as shown in the physical exhibit CPX-0002 and CDX-0001C, which is representative of other Gamevice for iPhone products, such as GV157A, GV156, GV157, GV157MUS, GV157SF, and GV157WD. CX-0003C, Hyun WS Q/A 25-28.
>
> . . .
>
> The evidence showed that the Gamevice for Android practices claims 21-22 of the '393 patent. CX-0001C, Singhose WS Q/A 907-909. The domestic industry analysis set forth below is based on GV189 (CPX-0005), which is representative of other Gamevice for Android products, such as GV167, GV169, and GV186. CX-0003C, Hyun WS at Q/A 29-32.
>
> . . .
>
> The evidence showed that the Gamevice for iPad practices claims 8, 19, 20, 21, and 22 of the '393 patent. CX-0001C, Singhose WS Q/A 1014-1017; CDX-0001C.190. The Gamevice for iPad includes products with model names GV140, GV141, GV150, GV160, and GV161. CX-0003C, Hyun WS Q/A 21. The domestic industry analysis set forth below is based on GV140 (CPX-0001), which is representative of the other Gamevice for iPhone products, such as GV141, GV150, GV160, and GV161. *See id.* at Q/A 21-24; CPX-0003, CPX-0004.
>
> . . .
>
> The evidence showed that the Kishi practices claims 8-11 and 19-22 of the '393 patent. CX-0001C, Singhose WS Q/A 1178-79. The domestic industry analysis for the Kishi is based on the pre-production model of GV195 (CPX-0006), which is identical to GV195 currently sold on the market and representative of other Kishi products (GV190, GV191, and GV196). CX-0003C, Hyun WS Q/A 33-35; CX-0001C Q/A 1180-83.

Compl. Br. at 81, 88-89, 93, 102-03.

The Staff argues that the evidence shows that the analyzed products are representative.

See Staff Br. at 81-82.

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Gamevice's expert, Dr. Singhose, selected certain representative products based communications with Gamevice CEO, Mr. Hyun. *See* CX-0001C (Singhose DWS) at Q/A 786, 909, 1016, 1180. Dr. Singhose was informed by Mr. Hyun "that GV195 is identical to other Kishi products, including for GV190 for Universal Android, GV191 for Xbox Android, and GV196 for iOS and XCloud, in the material aspects relevant to my analysis." *Id.* at Q/A 1180. Nintendo argues that Gamevice has not shown that the analyzed products are representative of other products. *See* Resps. Br. at 177. However, Mr. Hyun explained that each of the Gamevice products from the same family "all use the same basic connection mechanism and arrangement of components to physically operate with the mobile device." CX-0003C (Hyun DWS) at Q/A 22. Hence, Gamevice has adduced evidence showing that any of the Gamevice for iPhone products are representative of one another, any of the Gamevice for Android products are representative of one another, any of the Gamevice for iPad products are representative of one another, and any of the Kishi products are representative of one another. *See id.* The administrative law judge thus finds that the analyzed products are representative.

B. Gamevice for iPhone

1. Claim 16

Gamevice contends the Gamevice for iPhone practices dependent claims 21 and 22, which depend on independent claim 16 of the '393 patent.

a. An apparatus comprising:

The Gamevice for iPhone constitutes "an apparatus." See CX-0001C (Singhose DWS) at Q/A 787-89. Nintendo does not contest that the Gamevice for iPhone satisfies this limitation. *See* Resps. Br. at 177-90.

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b. a first means for attaching an input device to a computing device,

The Gamevice for iPhone includes "a computing device." *See* CX-0001C (Singhose DWS) at Q/A 791-93. Nintendo does not contest that the Gamevice for iPhone satisfies this portion of the limitation. *See* Resps. Br. at 177-90.

As ruled above, the term "first means for attaching an input device to a computing device" is subject to § 112(f), and the relevant function is "attaching an input device to a computing device." Moreover, the corresponding structure is: (1) structure 128, which allows a computer device to attach to input device 114 by nesting (Fig. 1, col. 4, lns. 46-52, col. 5, lns. 22-31, col. 6, lns. 51-57); (2) control modules that "secure" to a structural bridge using a confinement boss, retention member, detent, and catch (Fig. 14-15, col. 8, lns. 38-49); (3) confinement structures, a structural bridge, and an adjustable fastening mechanism that provides "sufficient compressive load [] on the computing device [] to securely hold the computing device between the pair of confinement structures" (Figs. 16-17, col. 9, lns. 39-53, col. 9, lns. 60-62, col. 10, lns. 8-20); (4) control modules, a structural bridge, and a tensioning mechanism that allow the input device and computing device to "join[] together" (Fig. 35, col. 14, ln. 42 – col. 15, ln. 17); and (5) equivalents thereof.

Gamevice argues that the Gamevice for iPhone comprises a pair of control modules, a structural bridge, and a tensioning mechanism. *See* Compl. Br at 82-83 (citing CX-0001C (Singhose DWS) at Q/A 822-23). The administrative law judge finds that Gamevice has shown that the Gamevice for iPhone practices the "first means" limitation according to structure (4). *See* CX-0001C (Singhose DWS) at Q/A 810-13.

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Accordingly, it is determined that the Gamevice for iPhone satisfies this claim limitation under the adopted claim construction.

c. said computing device provides a central processing unit and plurality of sides,

The Gamevice for iPhone satisfies this claim limitation. *See id.* at Q/A 822. Nintendo does not contest that the Gamevice for iPhone satisfies this limitation. *See* Resps. Br. at 177-90.

d. each of the plurality of sides cooperating with the electronic display screen of said computing device;

The Gamevice for iPhone satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 822. Nintendo does not contest that the Gamevice for iPhone satisfies this limitation. *See* Resps. Br. at 177-90.

e. a second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device,

As ruled above, the administrative law judge has determined that (1) the term "second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device" is subject to § 112(f); (2) the relevant function is "controlling a movement of a virtual object displayed on said electronic display screen of said computing device"; and (3) there is no corresponding structure, rendering claims 16, 18, 20 and 22 indefinite.

However, if the term "second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device" is construed according to Gamevice's construction, where the function is "controlling a movement of a virtual object displayed on said electronic display screen of said computing device", and the disclosed structures are (1) a control module (120, 252, 278, 356, 402/404, 408/410, 502/504, 543, 544, or

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546); or (2) a keyboard module (164/166, 226/228, or 280); and equivalents thereof, then Gamevice has shown that the Gamevice for iPhone comprises a pair of control modules that perform the function of controlling the movement of a virtual object displayed on the electronic display screen using instructional input devices, such as triggers, buttons, and joysticks. *See* CX-0001C (Singhose DWS) at Q/A 826-30.

Accordingly, it is determined that the Gamevice for iPhone does not satisfy this claim limitation under the adopted claim construction.

f. said virtual object provided by an electronic game, said electronic game interacting with said central processing unit,

The Gamevice for iPhone satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 839. Nintendo does not contest that the Gamevice for iPhone satisfies this limitation. *See* Resps. Br. at 177-90.

g. wherein said second means is accommodated by said input device.

As ruled above, the administrative law judge has determined that (1) the term "second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device" is subject to § 112(f); (2) the relevant function is "controlling a movement of a virtual object displayed on said electronic display screen of said computing device"; and (3) there is no corresponding structure, rendering claims 16, 18, 20 and 22 indefinite.

However, if the term "second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device" is construed according to Gamevice's construction, where the function is "controlling a movement of a virtual object

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displayed on said electronic display screen of said computing device", and the disclosed structures are (1) a control module (120, 252, 278, 356, 402/404, 408/410, 502/504, 543, 544, or 546); or (2) a keyboard module (164/166, 226/228, or 280); and equivalents thereof, then Gamevice has shown that the Gamevice for iPhone accommodates a pair of control modules and their instructional input devices. *See* CX-0001C (Singhose DWS) at Q/A 841-42.

Accordingly, it is determined that the Gamevice for iPhone does not satisfy this claim limitation under the adopted claim construction.

* * *

It is therefore determined that the Gamevice for iPhone does not satisfy all limitations of claim 16 of the '393 patent.

2. Claim 21

Gamevice contends the Gamevice for iPhone practices dependent claim 21 of the '393 patent. *See* Compl. Br. at 85-88.

a. The apparatus of claim 16, in which the computing device having a length greater than its width, and wherein the first means for attaching the input device to a computing device comprising:

As discussed above, the Gamevice for iPhone does not satisfy all limitations of independent claim 16. The Gamevice for iPhone includes a computing device, where the computing device has a length greater than its width. *See* CX-0001C (Singhose DWS) Q/A 844-46.

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b. the input device in electronic communication with the central processing unit of the computing device,

The Gamevice for iPhone satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 847-49. Nintendo does not contest that the Gamevice for iPhone satisfies this limitation. *See* Resps. Br. at 177-90.

c. the input device providing a pair of control modules a first control module of a pair of control modules, and a second control module of the pair of control modules,

The Gamevice for iPhone satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 847-49. Nintendo does not contest that the Gamevice for iPhone satisfies this limitation. *See* Resps. Br. at 177-90.

d. at least one of the first and the second control modules further comprising a fastening latch;

The Gamevice for iPhone does not satisfy this claim limitation. *See* RX-1824C (Stern RWS) at Q/A 845.

Gamevice argues, in part:

> For issue (1), the evidence showed that the Gamevice for iPhone's electronic game control module has hooks on its bottom cover, which act as fastening latches. CX-0001C at Q/A 850-56; CDX-0001C.143. Nintendo argues that the term "fastening latch" should be limited to a soft draw latch shown in figure 24 of the '393 patent, but cites to nothing in the intrinsic record that necessitates this extremely narrow interpretation of the term. CX-0001C at Q/A 852. Also, contrary to Nintendo's argument that a fastening latch must contain at least two components that interact with each other, the evidence showed that a POSITA would understand the term to include a single component (e.g., a hook) that is capable of interacting with another component, such as a retention member. *See id*. at Q/A 853-55; CX-0078. Nintendo and the Staff also argue that a POSITA would not view the "stationary hooks" on the control module as a "latch," citing to a dictionary defining the term as "any various closing devices on a door that fit into a hook, notch, or cavity in the frame." *See* SPreHB at 77. This definition, however, proves that the hooks on the control modules satisfy the term "latch" because they have a cavity at the end for a circular end of a spring to latch onto. *See* CDX-0001C.147. Also, this fastening latch has sufficient written description support in the '393 patent because it corresponds to the adjustment structure 432 and the hooks

on the bottom cover of the control module shown in Figure 26. CX-0001C at Q/A 856.

As the evidence showed, the Gamevice for iPhone comprises circular ends of the springs, which correspond to the claimed retention member recited in limitation "21e," under Gamevice's construction because they provide openings that securely catch the fastening latches. *See id.* at Q/A 870-73; CDX-0001C.147. Nintendo does not, and cannot, dispute that these circular ends of the springs interact with the hooks (fastening latches), to restrain the structural bridge to the first (left) control module, and the pair of control modules to the computing device. CX-0001C at Q/A 874-80, 876; CDX-0001C.148-49. Also, Nintendo's argument that a retention member must be detachable lacks any support. CX-0001C at Q/A 877-80.

The evidence also showed that the Gamevice for iPhone practices this limitation under OUII's construction of "retention member," structure (2) and performs the identical function identified in Nintendo's construction. CX-0001C at Q/A 881-83, 891-92; CDX-0001C.150. The Gamevice for iPhone literally comprises a boss 430 and an adjustment structure 432, and they interact with each other to perform the identical function, i.e., restrain the electronic game modules to the structural bridge and to the computing device, in the same way as shown in figures 27 and 29 of the '393 patent. CX-0001C at Q/A 882-90; CDX-0001C.135, 151-53; CPX-0008. The interaction of the boss and the adjustment structure in the Gamevice for iPhone achieve substantially the same result as the "retention member" of adaptively securing the control modules to the structural bridge. CX-0001C at Q/A 886. As explained in section III. C. 8, the term "retention member" is sufficiently definite. CX-0001C at Q/A 893-94.

Nintendo also argues that there is an "inconsistency" throughout Gamevice's DI analysis because identifying circular ends of the springs as the "retention member" in claim 21 is inconsistent with identifying the entirety of the spring as the "biasing structure" in claim 9. *See* RPreHB at 179-80. But claim 9 is only mapped to the Kishi product, so Nintendo's alleged inconsistency does not apply to the other DI products. Moreover, as explained in the Kishi section below, there is no inconsistency in Gamevice's mapping. Nintendo also argues that "the components Gamevice relies on are not disclosed in the '393 patent," but it is well-established in patent law that the specification need not "provide in *haec verba* support for the claimed subject matter at issue." *Cordis Corp. v. Medtronic AVE, Inc.*, 339 F.3d 1352, 1364-65 (Fed. Cir. 2003) (noting that "[a]n applicant is not required to describe in the specification every conceivable and possible future embodiment of his invention."). Nintendo's attempt to import the construction of the term "retention member" from the 1111 investigation is similarly misguided because that construction was based on different claims and different patent than what is at issue in this investigation. CX-0001C at Q/A 893-94.

Moreover, the evidence showed that Gamevice's DI analysis of claim 21

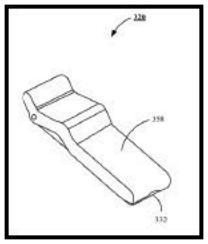
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does not conflict with its validity analysis of the PhoneJoy and Kessler. Unlike the springs in Gamevice's DI products, which actually restrain, couple, and/or secure the structural bridge to a control module to allow the DI products to attach to a computing device, the springs in the PhoneJoy and Kessler are only used to bias the primary sections of the telescoping bridge to switch between the open and collapsed configurations. CX-0182C at Q/A 187-189. Indeed, the evidence showed that the springs in the PhoneJoy and Kessler are not capable of restraining, coupling, or securing the telescoping bridge to a control module. *See* Singhose Tr. 911:5-913:15.

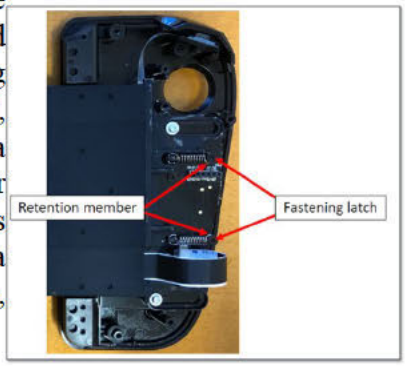
Compl. Br. at 85-88.

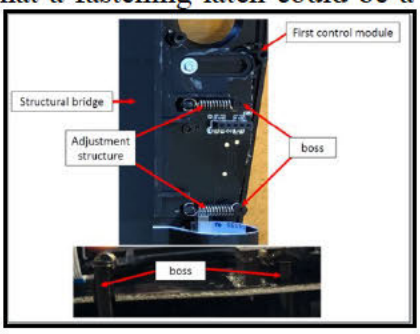
Nintendo argues, in part:

Claim 21c recites "at least one of the first and second control modules further comprising a fastening latch," but none of the alleged DI products contain a fastening latch as understood by a POSA. RX-1824C, Q845–48, 901–02, 980, 1080. A "fastening latch" is not described in the '393 patent. The specification only describes a soft draw latch, depicted in figure 24, as part of a fastening mechanism. JX-1, 9:54–59, 11:11–13. Gamevice alleges that integrated and stationary hooks on the bottom cover of the control module of the Gamevice for iPhone, Gamevice for Android, and Razer Kishi correspond to the fastening latch, as recited in claim 21. Gamevice similarly alleges that a screw and post on the bottom cover of the control module of the Gamevice for iPad corresponds to the fastening latch. Gamevice does not identify any support in the specification that this alleged "fastening latch" is identical or equivalent to." RX-1824C, Q845–46.



A POSA would not understand that these stationary hooks or screws constitute a latch when the spring attached to these components are attached and never released without disassembly. CDX-1C.216 (identifying screw as fastening latch in CPX-1, right). Instead, a POSA would understand that a latch, even if a single piece, still needs to interact with another component. Dr. Singhose confirmed this in his analysis, stating that a fastening latch could be a single piece if it interacts with a keeper, strike, notch, boss, or catch. RX-1824C, Q848, 980.



> Gamevice is also inconsistent in its identification of this hook on the bottom cover of the control module. Gamevice argues that a fastening latch could be a single part that interacts with a boss, which indicates that a latch is different than a boss. Yet, Gamevice identifies the same hook component as both a latch and a boss. CDX-1.209 (identifying same screw of CPX-1 as a boss, right). Gamevice argues that a component may have multiple pieces but identifies the same entire component as both a latch and boss. Gamevice's analysis further shows that the structure of a particular component is irrelevant as long as it supposedly performs the necessary recited function. RX-1824C, Q847, 858, 902–3, 967, 1042, 1045. Regardless of what Gamevice labels this component, the hook and/or screw of the alleged DI products does not satisfy limitation 21c.
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> 
>

Resps. Br. at 185-87.

The Staff argues that the stationary hooks identified by Gamevice are not "fastening latches" and thus do not satisfy the "fastening latch" limitation of claim 21. *See* Staff Br. at 77-78.

Gamevice contends that the Gamevice for iPhone's electronic game control module has hooks on its bottom cover, which act as fastening latches. *See* Compl Br. at 85-87 (citing CX-0001C (Singhose DWS) at Q/A 850-56). However, the '393 patent discloses the use of a soft draw latch to fasten the structural bridge in a particular position. *See, e.g.,* JX-0001 ('393 patent) at col. 9, ln. 54 – col. 10, ln. 20.

As Dr. Stern testified, one skilled in the art would not understand the component identified by Gamevice to be a "fastening latch." *See* RX-1824C (Stern RWS) at Q/A 845. One of ordinary skill in the art would understand that a fastening detent is different than a fastening latch. "For example, RX-1410 defines a 'detent' as a 'catch or lever in a mechanism which initiates or locks movement of a part, especially in escapement mechanisms' while it defines a 'latch' as '[a]ny of various closing devices on a door that fit into a hook, notch, or cavity in the

frame.'" *Id.* at Q/A 865. The administrative law judge finds that the stationary hooks identified by Gamevice are not "fastening latches" and thus do not satisfy the "fastening latch" limitation of claim 21. *See id.* at Q/A 845.

Accordingly, it is determined that the Gamevice for iPhone does not satisfy this claim limitation.

e. a structural bridge disposed between said first and second control module,

The construction of this claim term was discussed above. The claim term "structural bridge" is construed to mean "a physical apparatus that connects other components."

Nintendo contends that Gamevice has not shown that "an apparatus that folds and is not in tension absent an external computing device" is a "structural bridge." Resps. Br. at 170. However, according to Dr. Singhose, the structural bridges are identical in material aspect to element 422 of the '393 patent. *See* CX-0001C (Singhose WS) at Q/A 796-98.

The administrative law judge finds that the Gamevice for iPhone satisfies this limitation. *See* CX-0001C (Singhose DWS) at Q/A 857-66.

f. said structural bridge comprising a first side, said first side of said structural bridge in contact adjacency with said first control module, said structural bridge further comprising a second side, said second side of said structural bridge in contact adjacency with said second control module,

The Gamevice for iPhone satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 867-69. Nintendo does not contest that the Gamevice for iPhone satisfies this limitation. *See* Resps. Br. at 177-90.

g. said structural bridge still further comprising a retention member, the retention member interacts with the fastening latch, the interaction of the fastening latch with the retention member restrains the structural bridge to a control module of the pair of control modules, and the pair of control modules to the computing device.

As ruled above, the administrative law judge has determined that (1) the term "retention member" is subject to § 112(f); (2) the relevant function is "interacting with the fastening latch, the interaction of the fastening latch with the retention member restraining the structural bridge to a control module of the pair of control modules, and the pair of control modules to the computing device"; and (3) the corresponding structure is "a cylindrical post or column, including the recesses, depicted in Figure 14, at the interface between the confinement boss and the retention member."

Gamevice contends that Gamevice for iPhone comprises a boss 430 and an adjustment structure 432, and they interact with each other to restrain the electronic game modules to the structural bridge and to the computing device, in the same way as shown in figures 27 and 29 of the '393 patent." *See* Compl. Br. at 86-87. However, Gamevice has not shown that the boss and the adjustment structure correspond to the structure of "a cylindrical post or column, including the recesses, depicted in Figure 14, at the interface between the confinement boss and the retention member."

However, if the term "retention member" is construed according to Gamevice's construction to mean "a component with a recess or opening that securely receives or catches the fastening latch," then Gamevice has shown that the Gamevice for iPhone comprises circular ends of the springs, which correspond to the retention member because they provide openings that securely catch the fastening latches. *See* CX-0001C (Singhose DWS) at Q/A 870-73.

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Accordingly, it is determined that the Gamevice for iPhone does not satisfy this claim limitation.

* * *

It is therefore determined that the Gamevice for iPhone does not practice dependent claim 21 of the ’393 patent.

3. Claim 22

Gamevice contends the Gamevice for iPhone practices dependent claim 22 of the ’393 patent. *See* Compl. Br. at 88.

a. The apparatus of claim 21, in which the second means for controlling a movement of the virtual object displayed on said electronic display comprising:

As discussed above, the Gamevice for iPhone does not satisfy all limitations of dependent claim 21.

Moreover, the administrative law judge has determined that (1) the term “second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device” is subject to § 112(f); (2) the relevant function is “controlling a movement of a virtual object displayed on said electronic display screen of said computing device”; and (3) there is no corresponding structure, rendering claims 16, 18, 20 and 22 indefinite.

However, if the term “second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device” is construed according to Gamevice’s construction, where the second means refers to a pair of control modules each comprising a plurality of instructional input devices (*e.g.*, joysticks, keys, button, triggers, switches), where the input device providing the pair of control modules is in electronic communication with the central processing unit of the computing device, where the plurality of

instructional input devices in conjunction with the central processing unit control movement of the virtual object displayed on the electronic display screen, then Gamevice has shown that the Gamevice for iPhone comprises a ribbon cable, which is a communication link that facilitates communication between the control modules and the CPU via the Lightning connector, CX-0001C (Singhose DWS) at Q/A 896-900, and that both control modules of the Gamevice for iPhone have switches, buttons, and joysticks that act as instructional input devices controlling the movement of a virtual object in conjunction with a CPU, *id.* at Q/A 901-06.

Accordingly, it is determined that the Gamevice for iPhone does not satisfy this claim limitation under the adopted claim construction.

b. a communication link, the communication link facilitates communication between the pair of control modules and the central processing unit of the computing device;

The Gamevice for iPhone satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 896-900. Nintendo does not contest that the Gamevice for iPhone satisfies this limitation. *See* Resps. Br. at 177-90.

c. each the first and the second control modules of the pair of control modules comprising a plurality instructional input devices, and wherein the plurality of instructional input devices in conjunction with the central processing unit control movement of the virtual object displayed on the electronic display screen.

The Gamevice for iPhone satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 901-06. Nintendo does not contest that the Gamevice for iPhone satisfies this limitation. *See* Resps. Br. at 177-90.

* * *

It is therefore determined that the Gamevice for iPhone does not practice dependent claim 22 of the '393 patent.

C. Gamevice for Android

1. Claim 16

Gamevice contends the Gamevice for Android practices dependent claims 21 and 22, which depend on independent claim 16 of the '393 patent.

a. An apparatus comprising:

The Gamevice for Android constitutes "an apparatus." See CX-0001C (Singhose DWS) at Q/A 911. Nintendo does not contest that the Gamevice for Android satisfies this limitation. *See* Resps. Br. at 177-90.

b. a first means for attaching an input device to a computing device,

The Gamevice for Android includes "a computing device." *See* CX-0001C (Singhose DWS) at Q/A 913-17. Nintendo does not contest that the Gamevice for Android satisfies this portion of the limitation. *See* Resps. Br. at 177-90.

As ruled above, the term "first means for attaching an input device to a computing device" is subject to § 112(f), and the relevant function is "attaching an input device to a computing device." Furthermore, the corresponding structure is: (1) structure 128, which allows a computer device to attach to input device 114 by nesting (Fig. 1, col. 4, lns. 46-52, col. 5, lns. 22-31, col. 6, lns. 51-57); (2) control modules that "secure" to a structural bridge using a confinement boss, retention member, detent, and catch (Fig. 14-15, col. 8, lns. 38-49); (3) confinement structures, a structural bridge, and an adjustable fastening mechanism that provides "sufficient compressive load [] on the computing device [] to securely hold the computing device between the pair of confinement structures" (Figs. 16-17, col. 9, lns. 39-53, col. 9, lns. 60-62,

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col. 10, lns. 8-20); (4) control modules, a structural bridge, and a tensioning mechanism that allow the input device and computing device to "join[] together" (Fig. 35, col. 14, ln. 42 – col. 15, ln. 17); and (5) equivalents thereof.

Gamevice argues that the Gamevice for Android comprises a pair of control modules, a structural bridge, and a tensioning mechanism. *See* Compl. Br at 89-90 (citing CX-0001C (Singhose DWS) at Q/A 925-28). The administrative law judge finds that Gamevice has shown that the Gamevice for Android practices the "first means" limitation according to structure (4). *See* CX-0001C (Singhose DWS) at Q/A 939-44.

Accordingly, it is determined that the Gamevice for Android satisfies this claim limitation under the adopted claim construction.

c. said computing device provides a central processing unit and plurality of sides,

The Gamevice for Android satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 950-53. Nintendo does not contest that the Gamevice for Android satisfies this limitation. *See* Resps. Br. at 177-90.

d. each of the plurality of sides cooperating with the electronic display screen of said computing device;

The Gamevice for Android satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 950-53. Nintendo does not contest that the Gamevice for Android satisfies this limitation. *See* Resps. Br. at 177-90.

e. a second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device,

As ruled above, the administrative law judge has determined that (1) the term "second means for controlling a movement of a virtual object displayed on said electronic display screen

of said computing device" is subject to § 112(f); (2) the relevant function is "controlling a movement of a virtual object displayed on said electronic display screen of said computing device"; and (3) there is no corresponding structure, rendering claims 16, 18, 20 and 22 indefinite.

However, if the term "second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device" is construed according to Gamevice's construction, where the function is "controlling a movement of a virtual object displayed on said electronic display screen of said computing device", and the disclosed structures are (1) a control module (120, 252, 278, 356, 402/404, 408/410, 502/504, 543, 544, or 546); or (2) a keyboard module (164/166, 226/228, or 280); and equivalents thereof, then Gamevice has shown that the Gamevice for Android comprises a pair of control modules that perform the function of controlling the movement of a virtual object displayed on the electronic display screen using instructional input devices, such as triggers, buttons, and joysticks. *See* CX-0001C (Singhose DWS) at Q/A 954-65.

Accordingly, it is determined that the Gamevice for Android does not satisfy this claim limitation under the adopted claim construction.

f. said virtual object provided by an electronic game, said electronic game interacting with said central processing unit,

The Gamevice for Android satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 966-67. Nintendo does not contest that the Gamevice for Android satisfies this limitation. *See* Resps. Br. at 177-90.

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g. wherein said second means is accommodated by said input device.

As ruled above, the administrative law judge has determined that (1) the term "second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device" is subject to § 112(f); (2) the relevant function is "controlling a movement of a virtual object displayed on said electronic display screen of said computing device"; and (3) there is no corresponding structure, rendering claims 16, 18, 20 and 22 indefinite.

However, if the term "second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device" is construed according to Gamevice's construction, where the function is "controlling a movement of a virtual object displayed on said electronic display screen of said computing device", and the disclosed structures are (1) a control module (120, 252, 278, 356, 402/404, 408/410, 502/504, 543, 544, or 546); or (2) a keyboard module (164/166, 226/228, or 280); and equivalents thereof, then Gamevice has shown that the Gamevice for Android accommodates a pair of control modules and their instructional input devices. *See* CX-0001C (Singhose DWS) at Q/A 968-69.

Accordingly, it is determined that the Gamevice for Android does not satisfy this claim limitation under the adopted claim construction.

* * *

It is therefore determined that the Gamevice for Android does not satisfy all limitations of claim 16 of the '393 patent.

2. Claim 21

Gamevice contends the Gamevice for Android practices dependent claim 21 of the '393 patent. *See* Compl. Br. at 91-92.

a. The apparatus of claim 16, in which the computing device having a length greater than its width, and wherein the first means for attaching the input device to a computing device comprising:

As discussed above, the Gamevice for Android does not satisfy all limitations of independent claim 16. The Gamevice for Android includes a computing device, where the computing device has a length greater than its width. *See* CX-0001C (Singhose DWS) Q/A 971-73.

b. the input device in electronic communication with the central processing unit of the computing device,

The Gamevice for Android satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 974-75. Nintendo does not contest that the Gamevice for Android satisfies this limitation. *See* Resps. Br. at 177-90.

c. the input device providing a pair of control modules a first control module of a pair of control modules, and a second control module of the pair of control modules,

The Gamevice for Android satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 974-75. Nintendo does not contest that the Gamevice for Android satisfies this limitation. *See* Resps. Br. at 177-90.

d. at least one of the first and the second control modules further comprising a fastening latch;

Gamevice contends that the Gamevice for Android's electronic game control module has hooks on its bottom cover, which act as fastening latches. *See* Compl Br. at 91-92 (citing CX-0001C (Singhose DWS) at Q/A 976-79). However, the '393 patent discloses the use of a

soft draw latch to fasten the structural bridge in a particular position. *See, e.g.,* JX-0001 ('393 patent) at col. 9, ln. 54 – col. 10, ln. 20.

As Dr. Stern testified, one skilled in the art would not understand the component identified by Gamevice to be a "fastening latch." *See* RX-1824C (Stern RWS) at Q/A 901. "A person of ordinary skill in the art would understand that a fastening detent is different than a fastening latch. For example, RX-1410 defines a 'detent' as a 'catch or lever in a mechanism which initiates or locks movement of a part, especially in escapement mechanisms' while it defines a 'latch' as '[a]ny of various closing devices on a door that fit into a hook, notch, or cavity in the frame.'" *Id.* at Q/A 865. The administrative law judge finds that the stationary hooks identified by Gamevice are not "fastening latches" and thus do not satisfy the "fastening latch" limitation of claim 21. *See id.* at Q/A 901-02.

Accordingly, it is determined that the Gamevice for Android does not satisfy this claim limitation.

e. a structural bridge disposed between said first and second control module,

The construction of this claim term was discussed above. The claim term "structural bridge" is construed to mean "a physical apparatus that connects other components."

Nintendo contends that Gamevice has not shown that "an apparatus that folds and is not in tension absent an external computing device" is a "structural bridge." Resps. Br. at 170. However, according to Dr. Singhose, the structural bridges are identical in material aspect to element 422 of the '393 patent. *See* CX-0001C (Singhose WS) at Q/A 796-98.

The administrative law judge finds that the Gamevice for Android satisfies this limitation. *See* CX-0001C (Singhose DWS) at Q/A 980-86.

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f. said structural bridge comprising a first side, said first side of said structural bridge in contact adjacency with said first control module, said structural bridge further comprising a second side, said second side of said structural bridge in contact adjacency with said second control module,

The Gamevice for Android satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 987-89. Nintendo does not contest that the Gamevice for Android satisfies this limitation. *See* Resps. Br. at 177-90.

g. said structural bridge still further comprising a retention member, the retention member interacts with the fastening latch, the interaction of the fastening latch with the retention member restrains the structural bridge to a control module of the pair of control modules, and the pair of control modules to the computing device.

As ruled above, the administrative law judge has determined that (1) the term "retention member" is subject to § 112(f); (2) the relevant function is "interacting with the fastening latch, the interaction of the fastening latch with the retention member restraining the structural bridge to a control module of the pair of control modules, and the pair of control modules to the computing device"; and (3) the corresponding structure is "a cylindrical post or column, including the recesses, depicted in Figure 14, at the interface between the confinement boss and the retention member."

Gamevice contends that the springs with circular ends in the Gamevice for Android are equivalent to the "retention member." *See* Compl. Br. at 92. However, Gamevice has not shown that the springs with circular ends correspond to the structure of "a cylindrical post or column, including the recesses, depicted in Figure 14, at the interface between the confinement boss and the retention member."

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However, if the term "retention member" is construed according to Gamevice's construction to mean "a component with a recess or opening that securely receives or catches the fastening latch," then Gamevice has shown that the Gamevice for Android comprises circular ends of the springs, which correspond to the retention member because they provide openings that securely catch the fastening latches. *See* CX-0001C (Singhose DWS) at Q/A 990-1003.

Accordingly, it is determined that the Gamevice for Android does not satisfy this claim limitation.

* * *

It is therefore determined that the Gamevice for Android does not practice dependent claim 21 of the '393 patent.

3. Claim 22

Gamevice contends the Gamevice for Android practices dependent claim 22 of the '393 patent. *See* Compl. Br. at 92-93.

a. The apparatus of claim 21, in which the second means for controlling a movement of the virtual object displayed on said electronic display comprising:

As discussed above, the Gamevice for Android does not satisfy all limitations of dependent claim 21.

Moreover, the administrative law judge has determined that (1) the term "second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device" is subject to § 112(f); (2) the relevant function is "controlling a movement of a virtual object displayed on said electronic display screen of said computing device"; and (3) there is no corresponding structure, rendering claims 16, 18, 20 and 22 indefinite.

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However, if the term "second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device" is construed according to Gamevice's construction, where the second means refers to a pair of control modules each comprising a plurality of instructional input devices (*e.g.*, joysticks, keys, button, triggers, switches), where the input device providing the pair of control modules is in electronic communication with the central processing unit of the computing device, where the plurality of instructional input devices in conjunction with the central processing unit control movement of the virtual object displayed on the electronic display screen, then Gamevice has shown that the Gamevice for Android has a flexible printed circuit, which runs from one control module to the other and facilitates communication between the pair of control modules, CX-0001C (Singhose DWS) at Q/A 1005-06, and that the Gamevice for Android has instructional input devices through which a user input is provided, where the user input then generates predetermined signals according to a communication protocol, which are sent to a video game executing on an Android device's CPU, *id.* at Q/A 1007-13.

Accordingly, it is determined that the Gamevice for Android does not satisfy this claim limitation under the adopted claim construction.

b. a communication link, the communication link facilitates communication between the pair of control modules and the central processing unit of the computing device;

The Gamevice for Android satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 1005-06. Nintendo does not contest that the Gamevice for Android satisfies this limitation. *See* Resps. Br. at 177-90.

c. each the first and the second control modules of the pair of control modules comprising a plurality instructional input devices, and wherein the plurality of instructional input devices in conjunction with the central processing unit control movement of the virtual object displayed on the electronic display screen.

The Gamevice for Android satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 1007-12. Nintendo does not contest that the Gamevice for Android satisfies this limitation. *See* Resps. Br. at 177-90.

* * *

It is therefore determined that the Gamevice for Android does not practice dependent claim 22 of the '393 patent.

D. Gamevice for iPad

1. Claim 8

Gamevice contends the Gamevice for iPad practices independent claim 8 of the '393 patent.

a. A combination comprising:

The Gamevice for iPad constitutes "a combination." See CX-0001C (Singhose DWS) Q/A 1018-20. Nintendo does not contest that the Gamevice for iPad satisfies this limitation. *See* Resps. Br. at 177-90.

b. a structural bridge, the structural bridge having a first end associated with a first electronic game control module of a pair of electronic game control modules and a second end associated with a second electronic game control module of the pair of electronic game control modules,

The construction of this claim term was discussed above. The claim term "structural bridge" is construed to mean "a physical apparatus that connects other components."

Nintendo contends that Gamevice has not shown that "an apparatus that folds and is not in tension absent an external computing device" is a "structural bridge." Resps. Br. at 170. However, according to Dr. Singhose, the structural bridges are identical in material aspect to element 422 of the '393 patent. *See* CX-0001C (Singhose WS) at Q/A 796-98.

The administrative law judge finds that the Gamevice for iPad satisfies this limitation. *See* CX-0001C (Singhose DWS) at Q/A 1021-33.

c. the structural bridge configured for adaptation to a computing device,

The construction of this claim term was discussed above. The claim term "the structural bridge configured for adaptation to a computing device" means "the structural bridge is adjustable to accommodate a length of a computing device."

The Gamevice for iPad satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 1034-50. Nintendo does not contest that the Gamevice for iPad satisfies this limitation. *See* Resps. Br. at 177-90.

d. the computing device having a length greater than its width, the structural bridge accommodates the length of the computing device,

The Gamevice for iPad satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 1051-52. Nintendo does not contest that the Gamevice for iPad satisfies this limitation. *See* Resps. Br. at 177-90.

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e. in which the structural bridge provides a void, the void disposed between the first end of the structural bridge and the second end of the structural bridge, the void having right, left, upper, and lower sides, each side of the void communicating with a material of the structural bridge.

As an initial matter, "structural bridge" has been construed to mean "a physical apparatus that connects other components."

The administrative law judge finds that the Gamevice for iPad's structural bridge provides a void between two ends of the structural bridge, which has four sides communicating with a material of the bridge. *See* CX-0001C (Singhose DWS) at Q/A 1053-56. Nintendo does not contest that the Gamevice for iPad satisfies this limitation. *See* Resps. Br. at 177-90.

* * *

It is therefore determined that the Gamevice for iPad practices asserted independent claim 8 of the '393 patent.

2. Claim 16

Gamevice contends the Gamevice for iPad practices dependent claims 19-22, which depend on independent claim 16 of the '393 patent.

a. An apparatus comprising:

The Gamevice for iPad constitutes "an apparatus." See CX-0001C (Singhose DWS) at Q/A 1058. Nintendo does not contest that the Gamevice for iPad satisfies this limitation. *See* Resps. Br. at 177-90.

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b. a first means for attaching an input device to a computing device,

The Gamevice for iPad includes "a computing device." *See* CX-0001C (Singhose DWS) at Q/A 1059. Nintendo does not contest that the Gamevice for iPad satisfies this portion of the limitation. *See* Resps. Br. at 177-90.

As ruled above, the term "first means for attaching an input device to a computing device" is subject to § 112(f), and the relevant function is "attaching an input device to a computing device." The corresponding structure is: (1) structure 128, which allows a computer device to attach to input device 114 by nesting (Fig. 1, col. 4, lns. 46-52, col. 5, lns. 22-31, col. 6, lns. 51-57); (2) control modules that "secure" to a structural bridge using a confinement boss, retention member, detent, and catch (Fig. 14-15, col. 8, lns. 38-49); (3) confinement structures, a structural bridge, and an adjustable fastening mechanism that provides "sufficient compressive load [] on the computing device [] to securely hold the computing device between the pair of confinement structures" (Figs. 16-17, col. 9, lns. 39-53, col. 9, lns. 60-62, col. 10, lns. 8-20); (4) control modules, a structural bridge, and a tensioning mechanism that allow the input device and computing device to "join[] together" (Fig. 35, col. 14, ln. 42 – col. 15, ln. 17); and (5) equivalents thereof.

Gamevice argues that the Gamevice for iPad comprises a pair of control modules, a structural bridge, and a tensioning mechanism. *See* Compl. Br at 95-96 (citing CX-0001C (Singhose DWS) at Q/A 1069-71). The administrative law judge finds that Gamevice has shown that the Gamevice for iPad practices the "first means" limitation according to structure (4). *See* CX-0001C (Singhose DWS) at Q/A 1072-73.

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Accordingly, it is determined that the Gamevice for iPad satisfies this claim limitation under the adopted claim construction.

c. said computing device provides a central processing unit and plurality of sides,

The Gamevice for iPad satisfies this claim limitation. *See id.* at Q/A 1082-84. Nintendo does not contest that the Gamevice for iPad satisfies this limitation. *See* Resps. Br. at 177-90.

d. each of the plurality of sides cooperating with the electronic display screen of said computing device;

The Gamevice for iPad satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 1082-84. Nintendo does not contest that the Gamevice for iPad satisfies this limitation. *See* Resps. Br. at 177-90.

e. a second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device,

As ruled above, the administrative law judge has determined that (1) the term "second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device" is subject to § 112(f); (2) the relevant function is "controlling a movement of a virtual object displayed on said electronic display screen of said computing device"; and (3) there is no corresponding structure, rendering claims 16, 18, 20 and 22 indefinite.

However, if the term "second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device" is construed according to Gamevice's construction, where the function is "controlling a movement of a virtual object displayed on said electronic display screen of said computing device", and the disclosed structures are (1) a control module (120, 252, 278, 356, 402/404, 408/410, 502/504, 543, 544, or

546); or (2) a keyboard module (164/166, 226/228, or 280); and equivalents thereof, then Gamevice has shown that the Gamevice for iPad comprises a pair of control modules that perform the function of controlling the movement of a virtual object displayed on the electronic display screen using instructional input devices, such as triggers, buttons, and joysticks. *See* CX-0001C (Singhose DWS) at Q/A 1085-99.

Accordingly, it is determined that the Gamevice for iPad does not satisfy this claim limitation under the adopted claim construction.

f. said virtual object provided by an electronic game, said electronic game interacting with said central processing unit,

The Gamevice for iPad satisfies this claim limitation. *See id.* at Q/A 1100-01. Nintendo does not contest that the Gamevice for iPad satisfies this limitation. *See* Resps. Br. at 177-90.

g. wherein said second means is accommodated by said input device.

As ruled above, the administrative law judge has determined that (1) the term "second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device" is subject to § 112(f); (2) the relevant function is "controlling a movement of a virtual object displayed on said electronic display screen of said computing device"; and (3) there is no corresponding structure, rendering claims 16, 18, 20 and 22 indefinite.

However, if the term "second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device" is construed according to Gamevice's construction, where the function is "controlling a movement of a virtual object displayed on said electronic display screen of said computing device", and the disclosed

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structures are (1) a control module (120, 252, 278, 356, 402/404, 408/410, 502/504, 543, 544, or 546); or (2) a keyboard module (164/166, 226/228, or 280); and equivalents thereof, then Gamevice has shown that the Gamevice for iPad accommodates a pair of control modules and their instructional input devices. *See* CX-0001C (Singhose DWS) at Q/A 1102-03.

Accordingly, it is determined that the Gamevice for iPad does not satisfy this claim limitation under the adopted claim construction.

* * *

It is therefore determined that the Gamevice for iPad does not satisfy all limitations of claim 16 of the '393 patent.

1. Claim 19

Gamevice contends the Gamevice for iPad practices dependent claim 19 of the '393 patent. *See* Compl. Br. at 98-100.

a. The apparatus of claim 16, in which the computing device having a length greater than its width, and wherein the first means for attaching the input device to a computing device comprising:

As discussed above, the Gamevice for iPad does not satisfy all limitations of independent claim 16. The Gamevice for iPad includes a computing device, where the computing device has a length greater than its width. *See* CX-0001C (Singhose DWS) Q/A 1105-06.

b. the input device in electronic communication with the central processing unit,

The Gamevice for iPad satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 1107-09. Nintendo does not contest that the Gamevice for iPad satisfies this limitation. *See* Resps. Br. at 177-90.

c. the input device providing a pair of control modules, the pair of control modules are adjacent to and confine the computing device on at least two opposing sides of the computing device,

The Gamevice for iPad satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 1110-13. Nintendo does not contest that the Gamevice for iPad satisfies this limitation. *See* Resps. Br. at 177-90.

d. the at least two opposing sides adjacent the electronic display screen define end points of the length of the computing device, the pair of control modules each adapt to and are in pressing contact with said opposing end points of the length of the computing device;

The Gamevice for iPad satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 1110-13. Nintendo does not contest that the Gamevice for iPad satisfies this limitation. *See* Resps. Br. at 177-90.

e. a structural bridge, the structural bridge secures the pair of control modules one to the other,

The construction of this claim term was discussed above. The claim term "structural bridge" is construed to mean "a physical apparatus that connects other components."

Nintendo contends that Gamevice has not shown that "an apparatus that folds and is not in tension absent an external computing device" is a "structural bridge." Resps. Br. at 170. However, according to Dr. Singhose, the structural bridges are identical in material aspect to element 422 of the '393 patent. *See* CX-0001C (Singhose WS) at Q/A 796-98.

The administrative law judge finds that the Gamevice for iPad satisfies this limitation. *See* CX-0001C (Singhose DWS) at Q/A 1114-16.

f. wherein a first of the pair of control modules comprising a retention mechanism communicating with the structural bridge,

As ruled above, the administrative law judge has determined that the term "retention mechanism" is subject to § 112(f), and the relevant function is "securing the structural bridge to the control modules." The corresponding structure is (1) the mechanical arrangement, as shown in Figure 14, using a confinement boss 262 having a fastening detent 264 that interacts with a retention member 266 that is responsive to a catch 268 to secure the structural bridge 258 to the pair of control modules 252 ('393 patent, Fig. 14; col. 8, lns. 38-49); (2) the mechanical arrangement, as shown in Figures 27 and 29, using a boss 430 interacting with an adjustment structure 432 to adaptively secure the control module 402 to a structural bridge 422 ('393 patent, Figs. 27 and 29, col. 11, ln. 58 – col. 12, ln. 39); and (3) equivalents thereof.

Gamevice contends that this limitation is met because "screws and posts that interact with the springs satisfy the 'retention mechanism' under Gamevice's construction because they are mechanical appliances that secure the structural bridge and the control modules, such that the structural bridge is disposed between the pair of control modules." Compl. Br. at 99. However, as Dr. Stern testified, a person skilled in the art would not understand a spring to be a machine or mechanical appliance. RX-1824C (Stern RWS) at Q/A 962.

The administrative law judge thus finds that the Gamevice for iPad does not satisfy this limitation.

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g. wherein the retention mechanism secures the structural bridge to the first of the pair of control modules, such that the structural bridge accommodates the length of the computing device,

Gamevice has not shown that the Gamevice for iPad satisfies this claim limitation. Gamevice has not shown that the retention mechanism secures the purported bridge to the control module in the Gamevice for iPad because, when springs of the identified retention mechanism are removed from the Gamevice for iPad, the purported bridge is still secured to the control module. *See* RX-1824C (Stern RWS) at Q/A 962-64; Singhose Tr. 350-352.

h. in which the structural bridge provides a void in the mid-section of the structural bridge, the void having right, left, upper, and lower sides, each side communicating with a material of the structural bridge.

As an initial matter, "structural bridge" has been construed to mean "a physical apparatus that connects other components."

The administrative law judge finds that the Gamevice for iPad's structural bridge provides a void between two ends of the structural bridge, which has four sides communicating with a material of the bridge. *See* CX-0001C (Singhose DWS) at Q/A 1053-56, 1134-35. Nintendo does not contest that the Gamevice for iPad satisfies this limitation. *See* Resps. Br. at 177-90.

* * *

It is therefore determined that the Gamevice for iPad does not practice dependent claim 19 of the '393 patent.

2. Claim 20

Gamevice contends the Gamevice for iPad practices dependent claim 20 of the '393 patent. *See* Compl. Br. at 100-01.

a. The apparatus of claim 19, in which the second means for controlling a movement of a virtual object displayed on said electronic display comprising:

As discussed above, the Gamevice for iPad does not satisfy all limitations of dependent claim 19.

Moreover, the administrative law judge has determined that (1) the term "second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device" is subject to § 112(f); (2) the relevant function is "controlling a movement of a virtual object displayed on said electronic display screen of said computing device"; and (3) there is no corresponding structure, rendering claims 16, 18, 20 and 22 indefinite.

However, if the term "second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device" is construed according to Gamevice's construction, where the second means refers to a pair of control modules, where each of the pair of control modules provides instructional input devices (*e.g.*, joysticks, keys, button, triggers, switches), where the input device providing the pair of control modules is in electronic communication with the central processing unit, where the instructional input devices in conjunction with the central processing unit control movement of the virtual object displayed on the electronic display screen, then Gamevice has shown that the Gamevice for iPad comprises a ribbon cable ribbon cable, which is a communication link that facilitates communication between the control modules and the CPU via the Lightning connector, *see* CX-0001C (Singhose DWS) at Q/A 1138-40, and that the control modules have switches, buttons, and joysticks that act as instructional input devices controlling the movement of a virtual object in conjunction with a CPU, *see id.* at Q/A 1141-42.

Accordingly, it is determined that the Gamevice for iPad does not satisfy this claim limitation under the adopted claim construction.

b. a communication link, the communication link facilitates communication between the pair of control modules and the central processing unit,

The Gamevice for iPad satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 1138-40. Nintendo does not contest that the Gamevice for iPad satisfies this limitation. *See* Resps. Br. at 177-90.

c. each of the pair of control modules provides instructional input devices, wherein said instructional input devices are adjacent each of the at least two opposing sides of the computing device, wherein the instructional input devices in conjunction with the central processing unit control movement of the virtual object displayed on the electronic display screen.

The Gamevice for iPad satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 1141-42. Nintendo does not contest that the Gamevice for iPad satisfies this limitation. *See* Resps. Br. at 177-90.

* * *

It is therefore determined that the Gamevice for iPad does not practice dependent claim 20 of the ’393 patent.

3. Claim 21

Gamevice contends the Gamevice for iPad practices dependent claim 21 of the ’393 patent. *See* Compl. Br. at 101-02.

a. The apparatus of claim 16, in which the computing device having a length greater than its width, and wherein the first means for attaching the input device to a computing device comprising:

As discussed above, the Gamevice for iPad does not satisfy all limitations of independent claim 16. The Gamevice for iPad includes a computing device, where the computing device has a length greater than its width. *See* CX-0001C (Singhose DWS) Q/A 1146.

b. the input device in electronic communication with the central processing unit of the computing device,

The Gamevice for iPad satisfies this claim limitation. *See id.* at Q/A 1147. Nintendo does not contest that the Gamevice for iPad satisfies this limitation. *See* Resps. Br. at 177-90.

c. the input device providing a pair of control modules a first control module of a pair of control modules, and a second control module of the pair of control modules,

The Gamevice for iPad satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 1147. Nintendo does not contest that the Gamevice for iPad satisfies this limitation. *See* Resps. Br. at 177-90.

d. at least one of the first and the second control modules further comprising a fastening latch;

Gamevice contends that the Gamevice for iPad comprises posts and screws which correspond to the claimed "fastening latch." *See* Compl Br. at 102 (citing CX-0001C (Singhose DWS) at Q/A 1148-50). However, the '393 patent discloses the use of a soft draw latch to fasten the structural bridge in a particular position. *See, e.g.,* JX-0001 ('393 patent) at col. 9, ln. 54 – col. 10, ln. 20.

As Dr. Stern testified, one skilled in the art would not understand the component identified by Gamevice to be a "fastening latch." *See* RX-1824C (Stern RWS) at Q/A 845-48, 980. "A person of ordinary skill in the art would understand that a fastening detent is different

than a fastening latch. For example, RX-1410 defines a 'detent' as a 'catch or lever in a mechanism which initiates or locks movement of a part, especially in escapement mechanisms' while it defines a 'latch' as '[a]ny of various closing devices on a door that fit into a hook, notch, or cavity in the frame.'" *Id.* at Q/A 865. The administrative law judge finds that the s posts and screws identified by Gamevice are not "fastening latches" and thus do not satisfy the "fastening latch" limitation of claim 21. *See* RX-1824C (Stern RWS) at Q/A 845, 980.

Accordingly, it is determined that the Gamevice for iPad does not satisfy this claim limitation.

e. a structural bridge disposed between said first and second control module,

The construction of this claim term was discussed above. The claim term "structural bridge" is construed to mean "a physical apparatus that connects other components."

Nintendo contends that Gamevice has not shown that "an apparatus that folds and is not in tension absent an external computing device" is a "structural bridge." Resps. Br. at 170. However, according to Dr. Singhose, the structural bridges are identical in material aspect to element 422 of the '393 patent. *See* CX-0001C (Singhose WS) at Q/A 796-98.

The administrative law judge finds that the Gamevice for iPad satisfies this limitation. *See* CX-0001C (Singhose DWS) at Q/A 1151.

f. said structural bridge comprising a first side, said first side of said structural bridge in contact adjacency with said first control module, said structural bridge further comprising a second side, said second side of said structural bridge in contact adjacency with said second control module,

The Gamevice for iPad satisfies this claim limitation. *See id.* at Q/A 1155. Nintendo does not contest that the Gamevice for iPad satisfies this limitation. *See* Resps. Br. at 177-90.

g. said structural bridge still further comprising a retention member, the retention member interacts with the fastening latch, the interaction of the fastening latch with the retention member restrains the structural bridge to a control module of the pair of control modules, and the pair of control modules to the computing device.

As ruled above, the administrative law judge has determined that (1) the term "retention member" is subject to § 112(f); (2) the relevant function is "interacting with the fastening latch, the interaction of the fastening latch with the retention member restraining the structural bridge to a control module of the pair of control modules, and the pair of control modules to the computing device"; and (3) the corresponding structure is "a cylindrical post or column, including the recesses, depicted in Figure 14, at the interface between the confinement boss and the retention member."

Gamevice contends that the posts and the screws in the Gamevice for iPad correspond to the boss 430 in structure (2). *See* Compl. Br. at 102. However, Gamevice has not shown that the posts and the screws in the Gamevice for iPad include the corresponding structure of "a cylindrical post or column, including the recesses, depicted in Figure 14, at the interface between the confinement boss and the retention member."

* * *

It is therefore determined that the Gamevice for iPad does not practice dependent claim 21 of the '393 patent.

4. Claim 22

Gamevice contends the Gamevice for iPad practices dependent claim 22 of the '393 patent. *See* Compl. Br. at 102.

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a. The apparatus of claim 21, in which the second means for controlling a movement of the virtual object displayed on said electronic display comprising:

As discussed above, the Gamevice for iPad does not satisfy all limitations of dependent claim 22.

Moreover, the administrative law judge has determined that (1) the term "second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device" is subject to § 112(f); (2) the relevant function is "controlling a movement of a virtual object displayed on said electronic display screen of said computing device"; and (3) there is no corresponding structure, rendering claims 16, 18, 20 and 22 indefinite.

However, if the term "second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device" is construed according to Gamevice's construction, where the second means refers to a pair of control modules each comprising a plurality of instructional input devices (*e.g.*, joysticks, keys, button, triggers, switches), where the input device providing the pair of control modules is in electronic communication with the central processing unit of the computing device, where the plurality of instructional input devices in conjunction with the central processing unit control movement of the virtual object displayed on the electronic display screen, then Gamevice has shown that the Gamevice for iPad comprises a ribbon cable, which is a communication link that facilitates communication between the control modules and the CPU via the Lightning connector, CX-0001C (Singhose DWS) at Q/A 1175, and that both control modules of the Gamevice for iPad have switches, buttons, and joysticks that act as instructional input devices controlling the movement of a virtual object in conjunction with a CPU, *id.* at Q/A 1176-77.

Accordingly, it is determined that the Gamevice for iPad does not satisfy this claim limitation under the adopted claim construction.

b. a communication link, the communication link facilitates communication between the pair of control modules and the central processing unit of the computing device;

The Gamevice for iPad satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 1175. Nintendo does not contest that the Gamevice for iPad satisfies this limitation. *See* Resps. Br. at 177-90.

c. each the first and the second control modules of the pair of control modules comprising a plurality instructional input devices, and wherein the plurality of instructional input devices in conjunction with the central processing unit control movement of the virtual object displayed on the electronic display screen.

The Gamevice for iPad satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 1176-77. Nintendo does not contest that the Gamevice for iPad satisfies this limitation. *See* Resps. Br. at 177-90.

* * *

It is therefore determined that the Gamevice for iPad does not practice dependent claim 22 of the '393 patent.

E. Kishi

1. Whether the Razer Kishi Is a Domestic Industry Product

Nintendo argues, in part:

> Gamevice's complaint does not plead that it was in the process of establishing a domestic industry as of the date the complaint was filed. Complaint, EDIS #719063. As a consequence, Gamevice is obligated to demonstrate that *as of the date of the complaint*—March 27, 2020—it had a DI with respect to its products. *Motiva, LLC v. ITC*, 716 F.3d 596, 601 n.6. (Fed. Cir. 2013). [redacted]

[redacted] In fact, products that Gamevice described in its charts were not commercially available when the complaint was filed, but rather, were pre-production, "design and validation testing" models of the Razer Kishi for iOS. RX-1824C, Q988; RX-1824C.A, Q988; RX-1446C;RX-1859C.

But that is not the only problem here. Gamevice claims that this "pre-production" unit is representative of other Razer Kishi products when it is not. CX-1C, Q1181–83; CPX-6. [redacted] Gamevice cannot say that a pre-production unit is evidence of a domestic industry at the time of the complaint, when the actual production units [redacted]. [redacted] Gamevice has not produced any evidence to the contrary. [redacted] But Gamevice has no evidence for that questionable assertion. RX-1824C, Q1021–24; CX-3C, Q56 (citing no evidence). [redacted] These mechanical engineering modifications to the Kishi for iOS confirm that the Kishi analyzed by Dr. Singhose is not representative of other Kishi models. RX-1824C, Q1003–06; CX-1C, Q1183 (acknowledging no void in production Kishi for Android). Another Kishi model, the GV196, is not currently in development so the pre-production Kishi cannot be representative of it. RX-1824C, Q997–98; CX-3C, Q71.

Resps. Br. at 178-79.

Gamevice argues, in part:

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> Nintendo argues that the Kishi is not a DI product because it was not marketed at the time of the complaint citing the *Motiva* case. *See* RPreHB at 171-72. But Nintendo's reliance on *Motiva* is misplaced because there, the development activity concerning the patented technology occurred three years before the filing of the complaint, and the complainant "had not shown that its old development activities contributed to a market that existed or was in the process of being created at the time of the complaint." *Motiva, LLC v. ITC*, 716 F.3d 596, 601 n.6 (Fed. Cir. 2013). In stark contrast, Gamevice's development efforts for the Kishi were ongoing when the complaint was filed (both the original and amended complaints) all the way through the Kishi's launch date. *See* CX-0003C at Q/A 52-55. [redacted].]

Compl. Br. at 103.

The Staff argues that the Kishi products are properly identified as domestic industry products, and that the Kishi product that was analyzed is representative of the other Kishi products. *See* Staff Br. at 82.

Nintendo argues that the Kishi products are not proper domestic industry products because they were not yet in production at the time of the filing of the complaint. *See* Resps. Br. at 178-79. However, Gamevice's development efforts for the Kishi were ongoing when the complaint was filed (both the original and amended complaints) all the way through the Kishi's launch date. *See* CX-0003C (Hynn DWS) at Q/A 52-55. Nintendo has not offered any precedent or reasonable basis to exclude a complainant's domestic industry product because that product had been designed, but was not yet in commercial production at the time of the complaint.

Nintendo further contends that the Kishi product that was analyzed was not a production model, and may not be representative of the other Kishi products. *See* Resps. Br. at 178-79.

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However, Gamevice has adduced evidence that most of the Kishi units currently available on the market [[redacted]]. *See* CX-0003C (Hynn DWS) at Q/A 52-55. Moreover, Dr. Singhose testified that "the pre-production model that I have used for my analysis is identical to the Kishi for iOS that is currently sold on the market." CX-0001C (Singhose DWS) at Q/A 1183.

Accordingly, the administrative law judge finds that the Razer Kishi is properly identified as a domestic industry product, and that the analyzed Razer Kishi is representative of the other Razer Kishi products.

2. Claim 8

Gamevice contends that the Kishi practices independent claim 8 of the '393 patent.

a. A combination comprising:

The Kishi constitutes "a combination." See CX-0001C (Singhose DWS) Q/A 1184. Nintendo does not contest that the Kishi satisfies this limitation. *See* Resps. Br. at 177-90.

b. a structural bridge, the structural bridge having a first end associated with a first electronic game control module of a pair of electronic game control modules and a second end associated with a second electronic game control module of the pair of electronic game control modules,

The construction of this claim term was discussed above. The claim term "structural bridge" is construed to mean "a physical apparatus that connects other components."

Nintendo contends that Gamevice has not shown that "an apparatus that folds and is not in tension absent an external computing device" is a "structural bridge." Resps. Br. at 170. However, according to Dr. Singhose, the structural bridges are identical in material aspect to element 422 of the '393 patent. *See* CX-0001C (Singhose WS) at Q/A 796-98.

The administrative law judge finds that the Kishi satisfies this limitation. *See* CX-0001C (Singhose DWS) at Q/A 1192.

c. the structural bridge configured for adaptation to a computing device,

The construction of this claim term was discussed above. The claim term "the structural bridge configured for adaptation to a computing device" means "the structural bridge is adjustable to accommodate a length of a computing device."

The Kishi satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 1200-11. Nintendo does not contest that the Kishi satisfies this limitation. *See* Resps. Br. at 177-90.

d. the computing device having a length greater than its width, the structural bridge accommodates the length of the computing device,

The Kishi satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 1200-11. Nintendo does not contest that the Kishi satisfies this limitation. *See* Resps. Br. at 177-90.

e. in which the structural bridge provides a void, the void disposed between the first end of the structural bridge and the second end of the structural bridge, the void having right, left, upper, and lower sides, each side of the void communicating with a material of the structural bridge.

Gamevice argues, in part:

> The evidence showed that the structural bridge has two voids that are disposed between the first and second ends of the structural bridge in the expanded configuration, and the voids communicate with the four sides, each of which communicates with a material of the structural bridge. CX-0001C at Q/A 1215-20; CDX-0001C.229-30. Nintendo argues that these voids are (1) not through holes because they are covered by two plates on the strap, which are used for clasping the Kishi's controllers into a closed configuration, and (2) not disposed between two ends of the bridge in the folded configuration. *See* RPreHB at 173-74.

The evidence showed, however, that these plates are not part of the Kishi's structural bridge because they do not satisfy any of the parties' constructions of the structural bridge. CX-0001C at Q/A at 1220. The plates do not connect the structural bridge to the control modules or connect them across an obstacle or space under Gamevice's or OUII's constructions, and they do not bear a load or provide connection and support across a span under Nintendo's construction. *See id*. In response, Nintendo argues that this is inconsistent with Gamevice's argument that the metal plates covering each section of the PhoneJoy's or Kessler's telescoping bridge is an integral component of the telescoping bridge. *See* RPreHB at 173-74. There is no such inconsistency. Unlike the metal plates of the telescoping bridge in the PhoneJoy and Kessler, which form a part of and perform the functions of the structural bridge, the clasping plates on the Kishi's structural bridge are merely used for clasping the Kishi into a folded configuration. CX-0001C at Q/A at 1220. In fact, this compact configuration prevents the Kishi from forming the claimed "combination" because the structural bridge is completely tucked inside the control modules. CX-0001C at Q/A at 1220. Therefore, a POSITA would not consider the Kishi's folded configuration in mapping the asserted claims. For the same reason, Nintendo's argument that the Kishi's voids in the structural bridge are no longer disposed between the ends of the structural bridge in this folded configuration lacks merit.[

[redacted]

]

Compl. Br. at 104-05 (footnote omitted).

Nintendo argues, in part:

> The purported bridge of the Razer Kishi does not contain a void as recited in claims 8 and 19, and thus, does not practice claims 8–11 and 19–20. *Id.*, Q1021–[redacted]]Dr. Singhose's contrary view is based on a pre-production Kishi for iOS—which was not available in the U.S. until nearly six months after the complaint was filed. CX-1C, Q1181–82; RX-1859C.2.
>
> The pre-production Razer Kishi for iOS that Dr. Singhose analyzed also fails to meet limitation 8d[[redacted]] A POSA would consider these top and bottom plates, which are secured to the purported bridge and are not meant to be removed, to be part of the purported bridge structure. Dr. Singhose does not, even though he says that the paper sticker on the PhoneJoy is. Tr. 869:14–870:9. The plates on the Kishi—unlike the sticker on the PhoneJoy—provide support and protection to the ribbon cable and make the Kishi's purported bridge more foldable for storage. RX-1824C, Q1029. Gamevice's refusal to include these Kishi "bridge plates" as part of the purported bridge demonstrates Gamevice's arbitrary approach of picking components of the alleged DI Products that satisfy certain claim elements. RX-1824C, Q1012, 1021–33, 1073. This approach is also inconsistent with its analysis of the Gamevice for iPad. *Id.*, Q1012–13, 1030.

Resps. Br. at 180-81.

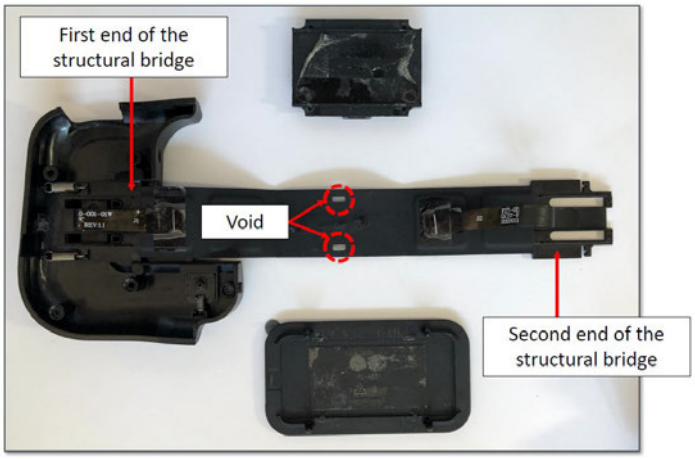
The Staff argues that the Kishi satisfies claim 8. *See* Staff Br. at 82-83.

As an initial matter, "structural bridge" has been construed to mean "a physical apparatus that connects other components."

Claim 8 recites, in part, "the structural bridge provides a void, the void disposed between the first end of the structural bridge and the second end of the structural bridge, the void having

right, left, upper, and lower sides, each side of the void communicating with a material of the structural bridge." Nintendo contends that the Kishi fails to satisfy this limitation because the void must be a through-hole in the bridge. *See* Resps. Br. at 180-81.

As shown in CDX-0001C at 229, reproduced below, Kishi's "structural bridge," provides a void disposed between the first and second ends of the structural bridge. No party sought to construe "void", and the plain meaning of "void" is "empty space." RX-1541.



CDX-0001C at 229 (photograph of CPX-0006)

The administrative law judge finds that the identified void satisfies the claim limitation, "the structural bridge provides a void, the void disposed between the first end of the structural bridge and the second end of the structural bridge, the void having right, left, upper, and lower sides, each side of the void communicating with a material of the structural bridge." The "void" has right, left, upper, and lower sides, as shown in CDX-0001C at 229. Each of these sides in turn "communicat[es] with a material of the structural bridge" because each such side is in contact with the structural bridge.

The administrative law judge thus finds that the Kishi satisfies the above-recited limitation.

* * *

It is therefore determined that the Kishi practices independent claim 8 of the '393 patent.

3. Claim 9

Gamevice contends the Kishi practices dependent claim 9 of the '393 patent. *See* Compl. Br. at 105-08.

a. The device of claim 8, in which the first of the pair of electronic game control modules further comprises a tensioning mechanism, a bottom cover, wherein the bottom cover provides a position guide, and in which the tensioning mechanism comprises:

As discussed above, the Kishi satisfies all limitations of independent claim 8. The Kishi satisfies this claim limitation. *See* CX-0001C (Singhose DWS) Q/A 1222-26.

b. an attachment boss communicating with the structural bridge;

Gamevice argues, in part:

> For limitation "9b," the evidence showed that the Kishi's tensioning mechanism comprises an attachment boss communicating with the structural bridge, as shown in CDX-0001C.233-35. CX-0001C at Q/A 1227-30. For limitation "9c," the evidence showed that the Kishi has an attachment support cooperating with the attachment boss, as shown in CDX-0001C.236, the cooperation of which secure the structural bridge, as shown in CDX-0001C.237. CX-0001C at Q/A 1231-33. For limitation "9d," the evidence showed that the Kishi's structural bridge is disposed between the attachment boss and the attachment support, as shown in CDX-0001C.238. CX-0001C at Q/A 1234-35. For limitation "9e," the evidence showed that the Kishi's springs, which are biasing structures, communicate with the attachment stay, as shown in CDX-0001C.239. CX-0001C at Q/A 1236-37. For limitation "9f," the evidence showed that the Kishi's springs provide tension between the structural bridge and the electronic game control modules, as shown in CDX-0001C.240. CX-0001C at Q/A 1238-39.
>
> Nintendo does not dispute that the Kishi comprises the additional elements recited in claim 9. Instead, Nintendo only argues that Gamevice's identification of the elements in the Kishi is inconsistent because (1) the component identified as the attachment stay is also part of the structural bridge, and (2) Gamevice argued that similar components found in the PhoneJoy do not satisfy the claim. RPreHB at 183-84. Nintendo is wrong on both issues.

Compl. Br. at 106-07.

Nintendo argues, in part:

> Gamevice alleges that the Razer Kishi (the only product which allegedly practices claims 9–11) discloses a tensioning mechanism as recited in amended claim 9. The Razer Kishi does not practice "an attachment boss communicating with the structural bridge" and "a biasing structure communicating with an attachment stay." Gamevice points to the structure allegedly communicating with the attachment boss and biasing structure as both the purported attachment stay and purported bridge. Under Gamevice's analysis, the attachment boss communicates with the attachment stay, not the purported bridge, or the biasing structure communicates with the purported bridge, not attachment stay. *Id*., Q1037–38. Gamevice's identification of the same structure as both the structural bridge and attachment stay, which are both recited elements in claim 9, violates the principle that separately listed claim elements are distinct components. *Id*., Q1038–40.

Resps. Br. at 181.

The Staff argues, in part:

> Claim 9 of the '393 patent recites "an attachment boss communicating with the structural bridge" and "a biasing structure communicating with an attachment stay." JX-0001 ('393 patent) at cl. 9. Nintendo contends that the Kishi domestic industry products have not been shown to practice claims 9-11 of the '393 patent because Gamevice's analysis is inconsistent in that it identifies the very same structure as both the structural bridge and the attachment stay. *See* Resps. P.H. Br. at 183-184. Prof. Singhose testified as follows:
>
> > I identified the same component as satisfying both the "structural bridge" and the "attachment stay." I disagree with his argument. I understand that it is permissible to identify the same component as satisfying multiple claim limitations. Furthermore, in the Kishi, the structural bridge is a component that contains multiple subcomponents. The attachment stay in the Kishi is a subcomponent that is located on both ends of the structural bridge. This mapping is consistent with the figures and descriptions of the '393 patent, for example, in figures 26 and 37 and their associated descriptions in column 13, lines 11 to 17 and in column 16, lines 21 to 28.
>
> CX-0001C (Singhose WS) at Q/A 1241. The Staff agrees with Gamevice. The "attachment stay," as recited, can be a component of the structural bridge. *See id.*
>
> In light of Prof. Singhose's testimony, the evidence shows that the Kishi domestic industry products satisfy this limitation of claims 9-11 of the '393 patent.

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Staff Br. at 80-81.

The administrative law judge finds that the attachment stay identified in Gamevice's mapping corresponds to the attachment stay 448 shown in figure 26 and the attachment stay 548 shown in figure 37, which is part of the structural bridge. *See* CX-0001C (Singhose DWS) at Q/A 1240-41; JX-0001 ('393 patent) at Figs. 26 and 37, col. 13, lns. 11-17, col. 16, lns. 21-28. The attachment stay can be a component of the structural bridge. For example, claim 9 states, "a biasing structure communicating with the attachment stay, the biasing structure provides tension between the structural bridge and the second of the pair of electronic game control modules." JX-0001 at claim 9. The claim also recites that the biasing structure is on the electronic game control module, so the attachment stay must be on the structural bridge to provide tension between the structural bridge and the second electronic game control module. *See id*.; CX-0001C (Singhose DWS) at Q/A 1242-43. Therefore, identifying a component of the structural bridge as the attachment stay is consistent with the claim language and the disclosures of the '393 patent. *See Skedco*, 663 F.3d at 1231-32; *Intellectual Ventures*, F. App'x at 907; *Cannon Rubber*, 163 F.App'x at 876-77.

The administrative law judge finds that the Kishi satisfies this limitation.

c. an attachment support cooperating with the attachment boss, the attachment support in cooperation with the attachment boss secures the structural bridge, the structural bridge disposed between the attachment boss and the attachment support;

Gamevice argues, in part:

> On the second issue, Gamevice's DI analysis for the Kishi is perfectly consistent with its validity analysis for the PhoneJoy because those two products have very different structures. In the Kishi, the attachment boss cooperates with the attachment stay of the structural bridge, as shown in CDX-0001C.235, which then cooperates with the attachment support to secure the structural bridge, as

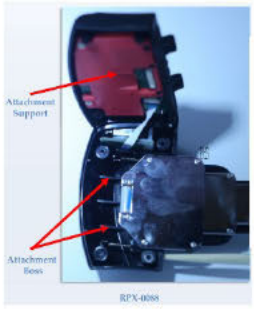
shown in CDX-0001C.236-37. *See* CX-0001C at Q/A 1231-33. In contrast, the evidence showed that the purported "attachment bosses" in the PhoneJoy are merely structural fins to provide structural rigidity to the control modules, and they do not interact—whether directly or indirectly—with the purported "attachment support." *See* Singhose Tr. 873:8-21.

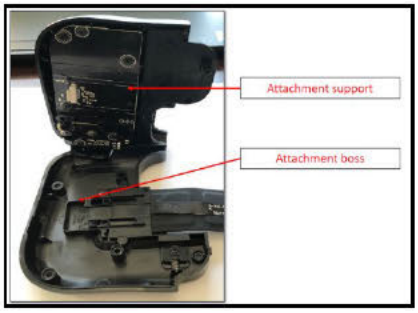
Similarly, Nintendo's reference to Gamevice's Moga analysis misses the mark because it fundamentally misunderstood Gamevice's argument. Gamevice argued that the Moga fails to satisfy claim 9 because the purported attachment boss and the purported attachment support identified by Dr. Cameron do not cooperate with each other "to secure the structural bridge, the structural bridge disposed between the attachment boss and the attachment support," as the claim requires. *See* Gamevice's PreHB at 115. As the evidence showed, a POSITA would not view that a structural bridge can be "disposed between" components that are provided on the same bottom cover of a control module. *See* CX-0182C at Q/A 133-136.

Compl. Br. at 107-08.

Nintendo argues, in part:

Gamevice and Dr. Singhose argue that PhoneJoy does not invalidate claim 9 because the identified attachment boss and attachment support do not touch each other and therefore cannot cooperate, as recited in claim 9. Tr. 872:7–873:24; 874:21–876:14, RDX-600.20 (showing RPX-88, left); CDX-1C.236 (showing CPX-6, right). Gamevice fails to show that the Kishi attachment support and attachment boss "touch" and therefore cooperate. The PhoneJoy and Kishi have nearly identical structures, and the only images analyzed by Gamevice show that both the attachment boss and attachment support do not touch and could not touch when assembled.





Gamevice states that they cooperate in a conclusory assertion. CX-1C, Q1232, CDX-1C.236-37 (CPX-6). But as Dr. Stern explains, the purported attachment stay slides on top of the alleged attachment boss, so the alleged attachment support would not touch the attachment boss when the attachment stay covers it. RX-1824C, Q1046–48. Further, the attachment boss is recessed within the bottom cover of the Razer Kishi's control module. *Id.* Dr. Singhose confirms the relationship between components, Tr. 361:7–16, 362:3–8 (confirming identification of attachment boss), and explained that that fins on the structural bridge (not the attachment boss) contact the attachment support on the Razer Kishi. Tr. 356:25–357:16 (attachment support strips on the printed circuit board line up with fins), 359:23–360:1 (fins are on the back side of the bridge); 361:13–21

> (identified attachment boss is below the identified fins). Thus, Gamevice does not show how the flat attachment support, a PCB, could touch the purported attachment boss that is well-below what Gamevice alleges is the attachment stay, and Dr. Singhose explained that the attachment support touched other components, not the attachment boss. Tr. 356:25–357:16. Applying Gamevice's validity analysis where an attachment support that does not touch the attachment stay does not meet limitation 9b, the Razer Kishi does not meet claim 9b, and thus, does not practice claims 9–11.

Resps. Br. at 181-82.

The administrative law judge finds that the Kishi satisfies the limitation, "an attachment support cooperating with the attachment boss, the attachment support in cooperation with the attachment boss secures the structural bridge, the structural bridge disposed between the attachment boss and the attachment support." Nintendo argues that the Kishi attachment support and attachment boss do not "touch" and therefore do not cooperate. *See* Resps. Br. at 181-82. However, the attachment boss cooperates with the attachment stay of the structural bridge, which then cooperates with the attachment support to secure the structural bridge. *See* CX-0001C (Singhose DWS) at Q/A 1231-33.

The administrative law judge finds that the Kishi satisfies this limitation.

d. a biasing structure communicating with an attachment stay, the biasing structure provides tension between the structural bridge and the second of the pair of electronic game control modules.

The Kishi satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 1236-41. Nintendo does not contest that the Kishi satisfies this limitation. *See* Resps. Br. at 177-90.

* * *

It is therefore determined that the Kishi practices dependent claim 9 of the '393 patent.

4. Claim 10

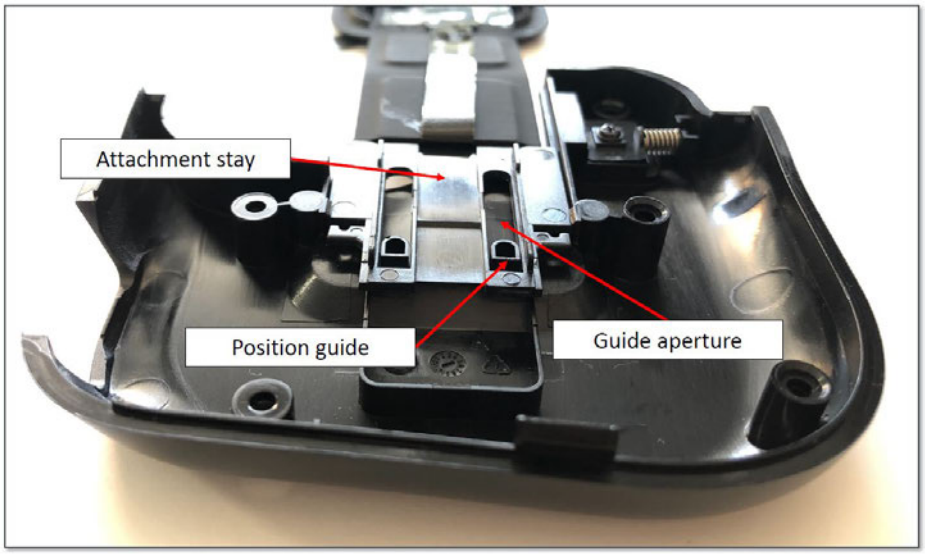
Gamevice contends the Kishi practices dependent claim 10 of the '393 patent. *See* Compl. Br. at 108.

a. The device of claim 9,

As discussed above, the Kishi satisfies all limitations of dependent claim 9.

b. in which the attachment stay comprises a guide aperture interacting with the position guide,

Nintendo argues that the guide aperture does not interact with the position guide because both are on the same cover. However, as shown in CDX-0001C at 241, reproduced below, the position guide clearly interacts with the guide aperture because it is disposed within the guide aperture. *See* CX-0001C (Singhose DWS) at Q/A 1246-47.



CDX-0001C at 229 (photograph of CPX-0006)

The administrative law judge finds that the Kishi satisfies this limitation.

c. the interaction of the guide aperture with the position guide maintains alignment between the structural bridge and the second of the pair of electronic game control modules.

The evidence shows that the interaction of the guide aperture with the position guide maintains alignment between the structural bridge and the electronic game control module. *See* CX-0001C (Singhose DWS) at Q/A 1248-50. The administrative law judge finds that the Kishi satisfies this limitation.

* * *

It is therefore determined that the Kishi practices dependent claim 10 of the '393 patent.

5. Claim 11

Gamevice contends the Kishi practices dependent claim 11 of the '393 patent. *See* Compl. Br. at 108.

a. The device of claim 9,

As discussed above, the Kishi satisfies all limitations of dependent claim 9.

b. in which at least one of the pair of electronic game control modules is a video game control module, and in which the video game control module passes signals to the computing device, the signals control images displayed on an electronic display screen of the computing device.

The administrative law judge finds that the Kishi's electronic game control modules are video game control modules, which pass signals to an iPhone for controlling images displayed on it using the Lightning connector. *See* CX-0001C (Singhose DWS) at Q/A 1253-59.

* * *

It is therefore determined that the Kishi practices dependent claim 11 of the '393 patent.

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6. Claim 16

Gamevice contends the Kishi practices dependent claims 19-22, which depend on independent claim 16 of the '393 patent.

a. An apparatus comprising:

The Kishi constitutes "an apparatus." See CX-0001C (Singhose DWS) Q/A 1260-61. Nintendo does not contest that the Kishi satisfies this limitation. *See* Resps. Br. at 177-90.

b. a first means for attaching an input device to a computing device,

The Kishi includes "a computing device." *See* CX-0001C (Singhose DWS) at Q/A 1260-61. Nintendo does not contest that the Kishi satisfies this portion of the limitation. *See* Resps. Br. at 177-90.

As ruled above, the term "first means for attaching an input device to a computing device" is subject to § 112(f), and the relevant function is "attaching an input device to a computing device." The corresponding structure is: (1) structure 128, which allows a computer device to attach to input device 114 by nesting (Fig. 1, col. 4, lns. 46-52, col. 5, lns. 22-31, col. 6, lns. 51-57); (2) control modules that "secure" to a structural bridge using a confinement boss, retention member, detent, and catch (Fig. 14-15, col. 8, lns. 38-49); (3) confinement structures, a structural bridge, and an adjustable fastening mechanism that provides "sufficient compressive load [] on the computing device [] to securely hold the computing device between the pair of confinement structures" (Figs. 16-17, col. 9, lns. 39-53, col. 9, lns. 60-62, col. 10, lns. 8-20); (4) control modules, a structural bridge, and a tensioning mechanism that allow the input device and computing device to "join[] together" (Fig. 35, col. 14, ln. 42 – col. 15, ln. 17); and (5) equivalents thereof.

Gamevice argues that the Kishi comprises a pair of control modules, a structural bridge, and a tensioning mechanism. *See* Compl. Br at 108 (citing CX-0001C (Singhose DWS) at Q/A 1276-79). The administrative law judge finds that Gamevice has shown that the Kishi practices the "first means" limitation according to structure (4). *See* CX-0001C (Singhose DWS) at Q/A 1276-79.

Accordingly, it is determined that the Kishi satisfies this claim limitation under the adopted claim construction.

c. said computing device provides a central processing unit and plurality of sides,

The administrative law judge finds that the Kishi satisfies this claim limitation. See CX-0001C (Singhose DWS) Q/A 1286. Nintendo does not contest that the Kishi satisfies this limitation. *See* Resps. Br. at 177-90.

d. each of the plurality of sides cooperating with the electronic display screen of said computing device;

The Kishi satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 1286. Nintendo does not contest that the Kishi satisfies this limitation. *See* Resps. Br. at 177-90.

e. a second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device,

As ruled above, the administrative law judge has determined that (1) the term "second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device" is subject to § 112(f); (2) the relevant function is "controlling a movement of a virtual object displayed on said electronic display screen of said computing device"; and (3) there is no corresponding structure, rendering claims 16, 18, 20 and 22 indefinite.

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However, if the term "second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device" is construed according to Gamevice's construction, where the function is "controlling a movement of a virtual object displayed on said electronic display screen of said computing device", and the disclosed structures are (1) a control module (120, 252, 278, 356, 402/404, 408/410, 502/504, 543, 544, or 546); or (2) a keyboard module (164/166, 226/228, or 280); and equivalents thereof, then Gamevice has shown that the Kishi comprises a pair of control modules that perform the function of controlling the movement of a virtual object displayed on the electronic display screen using instructional input devices, such as triggers, buttons, and joysticks. *See* CX-0001C (Singhose DWS) at Q/A 1287-96.

Accordingly, it is determined that the Kishi does not satisfy this claim limitation under the adopted claim construction.

f. said virtual object provided by an electronic game, said electronic game interacting with said central processing unit,

The Kishi satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 1297. Nintendo does not contest that the Kishi satisfies this limitation. *See* Resps. Br. at 177-90.

g. wherein said second means is accommodated by said input device.

As ruled above, the administrative law judge has determined that (1) the term "second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device" is subject to § 112(f); (2) the relevant function is "controlling a movement of a virtual object displayed on said electronic display screen of said computing

device"; and (3) there is no corresponding structure, rendering claims 16, 18, 20 and 22 indefinite.

However, if the term "second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device" is construed according to Gamevice's construction, where the function is "controlling a movement of a virtual object displayed on said electronic display screen of said computing device", and the disclosed structures are (1) a control module (120, 252, 278, 356, 402/404, 408/410, 502/504, 543, 544, or 546); or (2) a keyboard module (164/166, 226/228, or 280); and equivalents thereof, then Gamevice has shown that the the control modules in the Kishi are accommodated by the "input device," which is the Kishi. *See* CX-0001C (Singhose DWS) at Q/A 1298.

Accordingly, it is determined that the Kishi does not satisfy this claim limitation under the adopted claim construction.

* * *

It is therefore determined that the Kishi does not satisfy all limitations of claim 16 of the '393 patent.

7. Claim 19

Gamevice contends the Kishi practices dependent claim 19 of the '393 patent. *See* Compl. Br. at 109.

a. The apparatus of claim 16, in which the computing device having a length greater than its width, and wherein the first means for attaching the input device to a computing device comprising:

As discussed above, the Kishi does not satisfy all limitations of independent claim 16. The Kishi includes a computing device, where the computing device has a length greater than its width. *See* CX-0001C (Singhose DWS) Q/A 1300-01.

b. the input device in electronic communication with the central processing unit,

The Kishi satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 1303. Nintendo does not contest that the Kishi satisfies this limitation. *See* Resps. Br. at 177-90.

c. the input device providing a pair of control modules, the pair of control modules are adjacent to and confine the computing device on at least two opposing sides of the computing device,

The Kishi satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 1306-09. Nintendo does not contest that the Kishi satisfies this limitation. *See* Resps. Br. at 177-90.

d. the at least two opposing sides adjacent the electronic display screen define end points of the length of the computing device, the pair of control modules each adapt to and are in pressing contact with said opposing end points of the length of the computing device;

The Kishi satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 1306-09. Nintendo does not contest that the Kishi satisfies this limitation. *See* Resps. Br. at 177-90.

e. a structural bridge, the structural bridge secures the pair of control modules one to the other,

The construction of this claim term was discussed above. The claim term "structural bridge" is construed to mean "a physical apparatus that connects other components."

Nintendo contends that Gamevice has not shown that "an apparatus that folds and is not in tension absent an external computing device" is a "structural bridge." Resps. Br. at 170. However, according to Dr. Singhose, the structural bridges are identical in material aspect to element 422 of the '393 patent. *See* CX-0001C (Singhose WS) at Q/A 796-98.

The administrative law judge finds that the Kishi satisfies this limitation. *See* CX-0001C (Singhose DWS) at Q/A 1310.

f. wherein a first of the pair of control modules comprising a retention mechanism communicating with the structural bridge,

As ruled above, the administrative law judge has determined that the term "retention mechanism" is subject to § 112(f), and the relevant function is "securing the structural bridge to the control modules." The corresponding structure is (1) the mechanical arrangement, as shown in Figure 14, using a confinement boss 262 having a fastening detent 264 that interacts with a retention member 266 that is responsive to a catch 268 to secure the structural bridge 258 to the pair of control modules 252 ('393 patent, Fig. 14; col. 8, lns. 38-49); (2) the mechanical arrangement, as shown in Figures 27 and 29, using a boss 430 interacting with an adjustment structure 432 to adaptively secure the control module 402 to a structural bridge 422 ('393 patent, Figs. 27 and 29; col. 11, ln. 58 – col. 12, ln. 39); and (3) equivalents thereof.

Gamevice contends that this limitation is met because "the hooks on the control modules perform the identical function of securing the structural bridge to the control modules, and are

equivalent to the boss 430 in structure (2) in the proposed construction." Compl. Br. at 90. However, as Dr. Stern testified, a person skilled in the art would not understand a spring to be a machine or mechanical appliance. RX-1824C (Stern RWS) at Q/A 962. The administrative law judge finds that the Kishi does not satisfy this limitation.

g. wherein the retention mechanism secures the structural bridge to the first of the pair of control modules, such that the structural bridge accommodates the length of the computing device,

Gamevice has not shown that the Kishi satisfies this claim limitation. Gamevice has not shown that the retention mechanism secures the purported bridge to the control module in the Kishi because, when springs of the identified retention mechanism are removed from the Kishi, the purported bridge is still secured to the control module. *See* RX-1824C (Stern RWS) at Q/A 962-64, 1048; Singhose Tr. 355.

h. in which the structural bridge provides a void in the mid-section of the structural bridge, the void having right, left, upper, and lower sides, each side communicating with a material of the structural bridge.

The administrative law judge finds that the identified void satisfies the claim limitation, "the structural bridge provides a void, the void disposed between the first end of the structural bridge and the second end of the structural bridge, the void having right, left, upper, and lower sides, each side of the void communicating with a material of the structural bridge." The "void" has right, left, upper, and lower sides, as shown in CDX-0001C at 229. Each of these sides in turn "communicat[es] with a material of the structural bridge" because each such side is in contact with the structural bridge.

The administrative law judge thus finds that the Kishi satisfies the above-recited limitation.

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* * *

It is therefore determined that the Kishi does not practice dependent claim 19 of the '393 patent.

8. Claim 20

Gamevice contends the Kishi practices dependent claim 20 of the '393 patent. *See* Compl. Br. at 109.

a. The apparatus of claim 19, in which the second means for controlling a movement of a virtual object displayed on said electronic display comprising:

As discussed above, the Kishi does not satisfy all limitations of dependent claim 19.

Moreover, the administrative law judge has determined that (1) the term "second means for controlling a movement of a virtual object displayed on said electronic display" is subject to § 112(f); (2) the relevant function is "controlling a movement of a virtual object displayed on said electronic display screen of said computing device"; and (3) there is no corresponding structure, rendering claims 16, 18, 20 and 22 indefinite.

However, if the term "second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device" is construed according to Gamevice's construction, where the second means refers to a pair of control modules, where each of the pair of control modules provides instructional input devices (*e.g.*, joysticks, keys, button, triggers, switches), where the input device providing the pair of control modules is in electronic communication with the central processing unit, where the instructional input devices in conjunction with the central processing unit control movement of the virtual object displayed on the electronic display screen, then Gamevice has shown that the Kishi comprises a ribbon cable ribbon cable, which is a communication link that facilitates communication between the

control modules and the CPU via the Lightning connector, *see* CX-0001C (Singhose DWS) at Q/A 1332-34, and that the control modules have switches, buttons, and joysticks that act as instructional input devices controlling the movement of a virtual object in conjunction with a CPU, *see id.* at Q/A 1335-38.

Accordingly, it is determined that the Kishi does not satisfy this claim limitation under the adopted claim construction.

b. a communication link, the communication link facilitates communication between the pair of control modules and the central processing unit,

The Kishi satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 1332. Nintendo does not contest that the Kishi satisfies this limitation. *See* Resps. Br. at 177-90.

c. each of the pair of control modules provides instructional input devices, wherein said instructional input devices are adjacent each of the at least two opposing sides of the computing device, wherein the instructional input devices in conjunction with the central processing unit control movement of the virtual object displayed on the electronic display screen.

The Kishi satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 1336-38. Nintendo does not contest that the Kishi satisfies this limitation. *See* Resps. Br. at 177-90.

* * *

It is therefore determined that the Kishi does not practice dependent claim 20 of the ’393 patent.

9. Claim 21

Gamevice contends the Kishi practices dependent claim 21 of the ’393 patent. *See* Compl. Br. at 109-10.

a. The apparatus of claim 16, in which the computing device having a length greater than its width, and wherein the first means for attaching the input device to a computing device comprising:

As discussed above, the Kishi does not satisfy all limitations of independent claim 16. The Kishi includes a computing device, where the computing device has a length greater than its width. *See* CX-0001C (Singhose DWS) Q/A 1340. Nintendo does not contest that the Kishi satisfies this limitation. *See* Resps. Br. at 177-90.

b. the input device in electronic communication with the central processing unit of the computing device,

The Kishi satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 1341. Nintendo does not contest that the Kishi satisfies this limitation. *See* Resps. Br. at 177-90.

c. the input device providing a pair of control modules a first control module of a pair of control modules, and a second control module of the pair of control modules,

The Kishi satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 1341. Nintendo does not contest that the Kishi satisfies this limitation. *See* Resps. Br. at 177-90.

d. at least one of the first and the second control modules further comprising a fastening latch;

Gamevice contends that the Kishi's electronic game control module has hooks on its bottom cover, which act as fastening latches. *See* Compl Br. at 91-92 (citing CX-0001C (Singhose DWS) at Q/A 976-79). However, the '393 patent discloses the use of a soft draw latch to fasten the structural bridge in a particular position. *See, e.g.,* JX-0001 ('393 patent) at col. 9, ln. 54 – col. 10, ln. 20.

As Dr. Stern testified, one skilled in the art would not understand the component identified by Gamevice to be a "fastening latch." *See* RX-1824C (Stern RWS) at Q/A 845. "A person of ordinary skill in the art would understand that a fastening detent is different than a

fastening latch. For example, RX-1410 defines a 'detent' as a 'catch or lever in a mechanism which initiates or locks movement of a part, especially in escapement mechanisms' while it defines a 'latch' as '[a]ny of various closing devices on a door that fit into a hook, notch, or cavity in the frame.'" *Id.* at Q/A 865. The administrative law judge finds that the stationary hooks identified by Gamevice are not "fastening latches" and thus do not satisfy the "fastening latch" limitation of claim 21. *See* RX-1824C (Stern RWS) at Q/A 845.

Accordingly, it is determined that the Kishi does not satisfy this claim limitation.

e. a structural bridge disposed between said first and second control module,

The construction of this claim term was discussed above. The claim term "structural bridge" is construed to mean "a physical apparatus that connects other components."

Nintendo contends that Gamevice has not shown that "an apparatus that folds and is not in tension absent an external computing device" is a "structural bridge." Resps. Br. at 170. However, according to Dr. Singhose, the structural bridges are identical in material aspect to element 422 of the '393 patent. *See* CX-0001C (Singhose WS) at Q/A 796-98.

The administrative law judge finds that the Kishi satisfies this limitation. *See* CX-0001C (Singhose DWS) at Q/A 1345-48.

f. said structural bridge comprising a first side, said first side of said structural bridge in contact adjacency with said first control module, said structural bridge further comprising a second side, said second side of said structural bridge in contact adjacency with said second control module,

The Kishi satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 1349-50. Nintendo does not contest that the Kishi satisfies this limitation. *See* Resps. Br. at 177-90.

g. said structural bridge still further comprising a retention member, the retention member interacts with the fastening latch, the interaction of the fastening latch with the retention member restrains the structural bridge to a control module of the pair of control modules, and the pair of control modules to the computing device.

As ruled above, the administrative law judge has determined that (1) the term "retention member" is subject to § 112(f); (2) the relevant function is "interacting with the fastening latch, the interaction of the fastening latch with the retention member restraining the structural bridge to a control module of the pair of control modules, and the pair of control modules to the computing device"; and (3) the corresponding structure is "a cylindrical post or column, including the recesses, depicted in Figure 14, at the interface between the confinement boss and the retention member."

Gamevice contends that the components in the Kishi relevant to the analysis are identical to the components in the Gamevice for iPhone and the Gamevice for Android in material aspects relevant to the analysis of claim 21. *See* Compl. Br. at 109-10. However, Gamevice has not shown that the components in the Kishi include the corresponding structure of "a cylindrical post or column, including the recesses, depicted in Figure 14, at the interface between the confinement boss and the retention member."

* * *

It is therefore determined that the Kishi does not practice dependent claim 21 of the '393 patent.

10. Claim 22

Gamevice contends the Kishi practices dependent claim 22 of the '393 patent. *See* Compl. Br. at 110.

a. The apparatus of claim 21, in which the second means for controlling a movement of the virtual object displayed on said electronic display comprising:

As discussed above, the Kishi does not satisfy all limitations of dependent claim 21.

Moreover, the administrative law judge has determined that (1) the term "second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device" is subject to § 112(f); (2) the relevant function is "controlling a movement of a virtual object displayed on said electronic display screen of said computing device"; and (3) there is no corresponding structure, rendering claims 16, 18, 20 and 22 indefinite.

However, if the term "second means for controlling a movement of a virtual object displayed on said electronic display screen of said computing device" is construed according to Gamevice's construction, where the second means refers to a pair of control modules each comprising a plurality of instructional input devices (*e.g.*, joysticks, keys, button, triggers, switches), where the input device providing the pair of control modules is in electronic communication with the central processing unit of the computing device, where the plurality of instructional input devices in conjunction with the central processing unit control movement of the virtual object displayed on the electronic display screen, then Gamevice has shown that the Kishi comprises a ribbon cable, which is a communication link that facilitates communication between the control modules and the CPU via the Lightning connector, CX-0001C (Singhose DWS) at Q/A 1370, and that both control modules of the Kishi have switches, buttons, and joysticks that act as instructional input devices controlling the movement of a virtual object in conjunction with a CPU, *id.* at Q/A 1371-72.

Accordingly, it is determined that the Kishi does not satisfy this claim limitation under the adopted claim construction.

b. a communication link, the communication link facilitates communication between the pair of control modules and the central processing unit of the computing device;

The Kishi satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 1370. Nintendo does not contest that the Kishi satisfies this limitation. *See* Resps. Br. at 177-90.

c. each the first and the second control modules of the pair of control modules comprising a plurality instructional input devices, and wherein the plurality of instructional input devices in conjunction with the central processing unit control movement of the virtual object displayed on the electronic display screen.

The Kishi satisfies this claim limitation. *See* CX-0001C (Singhose DWS) at Q/A 1371. Nintendo does not contest that the Kishi satisfies this limitation. *See* Resps. Br. at 177-90.

* * *

It is therefore determined that the Kishi does not practice dependent claim 22 of the ’393 patent.

F. Indirect Practice of the DI Products

Gamevice and respondents provide very short arguments on the question of whether or not Gamevice can rely on indirect infringement or practice of the ’393 patent, even though all of the activities briefly discussed involve Gamevice’s own activities, the activities of Gamevice’s distribution partner Razer, or their end-users. *See* Compl. Br. at 110-11; Resps. Br. at 190 (“Gamevice has not shown that the alleged DI products indirectly infringe the ’393 patent”); Resps. Reply at 56 (“The DI products do not indirectly infringe”)). This is not a question of whether respondents or their customers could be included in the domestic industry. Nevertheless, the briefing does not explain why Gamevice, Razer, or their end-users would have to satisfy the requirements applicable to allegations of indirect infringement, such as knowledge

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of the asserted patent. Yet, as discussed below, to the extent that respondents argue that an element of indirect infringement would be missing, it has been found that the record would support a finding of indirect infringement.

Gamevice argues that its U.S. employees test the Gamevice controllers with a computing device, completing any combination needed to satisfy the '393 patent claims, and Gamevice encourages its end-users and customers to do the same by illustrating those combinations on the as-sold boxes. *See* Compl. Br. at 110-11 (citing CX-0001C (Singhose DWS) at Q/A 1373-74). The administrative law judge finds that the testing of the Gamevice controllers with the computing device qualifies as practice of the DI products. The evidence also shows that Gamevice's customers and end-users directly practice the '393 patent claims because they use the domestic industry products and combine the components of products in the claimed manner. *See* CX-0001C (Singhose DWS) at Q/A 1375. Gamevice affirmatively acts to encourage practice of the DI claims with knowledge that the induced acts constitute practice of the claims, and possesses a specific intent to encourage another's practice of these claims. *See i4i Ltd. Partnership v. Microsoft Corp.*, 598 F.3d 831, 851 (Fed. Cir. 2010), *aff'd*, 564 U.S. 91 (2011).

Moreover, Gamevice has shown that (a) the DI products were used to perform acts of direct practice of the DI claims; (b) the DI products constitute a material part of the invention; (c) Gamevice knew its DI products were especially made or especially adapted for use in an practice of the DI claims; and (d) the DI products are not staple articles or commodities of commerce suitable for substantial noninfringing use. *See Arris Grp., Inc. v. British Telecomms. PLC*, 639 F.3d 1368, 1376; CX-0001C (Singhose DWS) at Q/A 1378-79.

Nintendo argues that Gamevice cannot rely on Razer's customers to support its indirect practice of the DI products because Razer has no knowledge of the '393 patent. *See* Resps. Br. at

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190. However, the evidence shows that Razer was aware, at least constructively, of the '393 patent because the domestic industry products are marked with the patents covering those products, including the '393 patent on the products themselves or virtually on its website. *See* CX-0001C (Singhose DWS) at Q/A 1381-82; CX-0181 (Gamevice Virtual Patent Marking).

The administrative law judge thus finds that Gamevice has shown that the Gamevice DI products indirectly practice the asserted claims, in cases where the underlying direct infringement is satisfied.

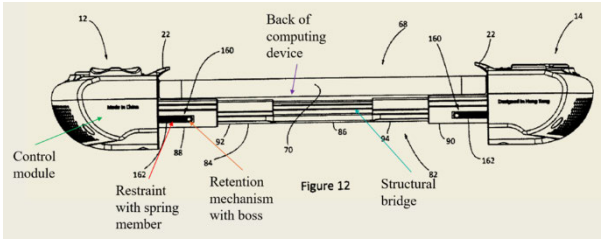
VIII. Invalidity

A. Validity Under 35 U.S.C. §§ 102 and 103

1. Anticipation – Kessler

Kessler was published on May 30, 2013, and therefore qualifies as prior art to the '393 patent. *See* RX-0116 (Kessler).

Nintendo argues, in part:

> Gamevice does not dispute that Kessler fails to disclose any limitation of claim 12. Claim 12pre: Kessler, used with the disclosed computing device, is a combination. RX-59C, Q336; RX-116.34. Claim 12a, b: Kessler discloses control modules on each side of its controller, where each control module includes joysticks, buttons, and a d-pad. RX-59C, Q358–60; RX-116.33–34. Claim 12c: Kessler discloses that its coil springs are attached to its control modules. RX-59C, Q357; RX-116 ¶ 99. Claim 12d: Kessler discloses a structural bridge disposed between its control modules. RX-59C, Q358–60. Claim 12e, f: Kessler's bridge is next to and touching its control modules. RX-59C, Q341, 345, 357. Claim 12g: The primary section of Kessler's bridge contains a retention mechanism with a boss in the form of a cylindrical component. RX-59C, Q341, 345, 357. Claim 12h: Kessler's coil spring interacts with the boss on Kessler's bridge to secure it to both control modules. RX-59C, Q357; RX-116 ¶¶ 99–100; Tr. 727:13–728:1. Staff's only argument that Kessler does not anticipate claim 12 is that Kessler's coil springs do not couple the control modules to the bridge because they are used to bias the primary sections of the structural bridge. RX-116 ¶¶ 99–100. But Kessler does not disclose another
>
> 
>
> Figure 12

> method of attachment between the control modules and structural bridge and Staff does not provide any reason why Kessler's coil springs cannot perform bias the section of the structural bridge and attach the control modules to the bridge. *Id.*; SPBr.84. When Kessler's bridge moves between open and closed configurations, the bridge collapses into and extends from the control modules, supporting the fact that Kessler's springs couple the control modules to the bridge. RX-116 ¶¶ 99–100.

Resps. Br. at 124-25.

Gamevice argues, in part:

> While Gamevice submits that Nintendo's anticipation argument for Kessler in view of claim 12 should be dismissed for violating the Ground Rules, if the ALJ allows Nintendo to pursue this argument, the ALJ should still reject Nintendo's argument for the following reasons. Kessler does not disclose any restraint, retention mechanism, or an interaction of the spring member of the restraint with the boss of the retention mechanism coupling the structural bridge to a control module recited in limitations 12c, 12g, and 12h. Nintendo exclusively relies on paragraphs 99-100 of Kessler, but those paragraphs state that the springs and the cylindrical component of the Kessler device (i.e., the PhoneJoy) are only used "to bias the primary sections of the sliding mechanism to their closed positions within their respective handle housings." RX-0116 at ¶99. It fails to disclose that they are used to *couple* the structural bridge to a control module as the claim requires, and Nintendo fails to point to any such disclosures in Kessler. Instead, Nintendo wrongly assumes that the springs must hold the structural bridge to a control module because Kessler does not disclose any other way of doing so, without citing to any evidence in the record. *See* RPostHB at 125. This precisely demonstrates that Nintendo's argument does not even come close to meeting the clear and convincing standard—Nintendo cannot prove that a reference discloses something by pointing to what is missing from the reference. Gamevice, on the other hand, demonstrated with Dr. Singhose's expert testimony that the springs in the PhoneJoy and Kessler do not, and cannot, couple the structural bridge to a control module, and that other unrelated components perform this function completely by themselves without the springs. CX-0182C at Q/A 187-189; Singhose Tr. 885:22-887:2; 912:9-913:15. Nintendo and its expert failed to rebut Dr. Singhose's testimony.

Compl. Reply Br. at 28-29.

The Staff argues, in part:

> Nintendo contends that International Publication No. WO 2014/079264 ("Kessler") (RX-0116) anticipates claim 12 of the '393 patent. Resp. P.H. Br. at 158-159; RX-0059C (Cameron WS) at Q/A 356-60; RX-0116 (Kessler) at 33-34. Kessler was published on May 30, 2013, which is over a year before the effective

> filing date of the claims. *See* RX-0116 (Kessler). Thus, it qualifies as prior art under at least 35 U.S.C. § 102(a)(1). Kessler was considered by the examiner during prosecution of the ’393 patent, and appears on the face of patent. *See* JX-0001 (’393 patent) at 2; CX-0182C (Singhose RWS) at Q/A 156-157.
>
> Conversely, Gamevice argues that Kessler fails to anticipate claim 12 because Kessler (and the PhoneJoy product described by Kessler) does not teach the limitation of “at least one of the first and the second electronic game control modules further comprising a restraint, the restraint providing at least a spring member . . . said structural bridge still further comprising a retention mechanism, the retention mechanism providing at least a boss, an interaction of the spring member of the restraint with the boss of the retention mechanism couples the structural bridge to at least one of the first and the second electronic game control modules.” CX-0182C (Singhose RWS) at Q/A 186. According to Prof. Singhose, “The spring and the hook that Dr. Cameron points to as disclosing the claimed restraint and the retention mechanism do not couple the structural bridge to an electronic game control module,” as the claim requires. *Id.* at Q/A 188. Instead, “[t]hat spring is used to bias the primary sections of the structural bridge to switch between the device’s open and closed configurations.” *Id.*, *citing* RX-0228 (Kessler) at ¶¶ 99-100.
>
> Accordingly, Kessler does not anticipate claim 12 of the '345 patent.

Staff Br. at 87-89.

The administrative law judge finds that Nintendo has not shown by clear and convincing evidence that the Kessler anticipates independent claim 12 of the ’393 patent.

Regarding claim 12, Gamevice argues that Kessler fails to disclose any restraint, retention mechanism, or an interaction of the spring member of the restraint with the boss of the retention mechanism coupling the structural bridge to a control module. Compl. Br. at 28-29. As an initial matter, no party sought to construe “restraint,” *see* JX-0014, and the administrative law judge has determined that the term “retention mechanism” is subject to § 112(f), and the relevant function is “securing the structural bridge to the control modules.” The corresponding structures are: (1) the mechanical arrangement, as shown in Figure 14, using a confinement boss 262 having a fastening detent 264 that interacts with a retention member 266 that is responsive to a catch 268 to secure the structural bridge 258 to the pair of control modules 252 (JX-0001 (’393

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patent) at Fig. 14; col. 8, lns. 38-49); (2) the mechanical arrangement, as shown in Figures 27 and 29, using a boss 430 interacting with an adjustment structure 432 to adaptively secure the control module 402 to a structural bridge 422 (JX-0001 ('393 patent) at Figs. 27 & 29, col. 11, ln. 58 – col. 12, ln. 39); and (3) equivalents thereof.

Regarding the interaction of the alleged retention mechanism and the alleged restraint, Kessler recites:

> In addition to the biasing system provided in the sliding mechanism 84 for tensioning the flexible circuit 114, there are provided respective pairs of biasing means 160 (figure 12) in the form of coil springs 162 attached between the handle housings 12, 14 and respective ones of the primary sections 88, 90 of the slide mechanism 84 to thereby bias said primary sections 88, 90 to their closed state within the handle housings 12, 14. As can be seen in figure 12, springs 162 are provided on each side of the handle housings 12, 14. Each spring 162 is arranged such that is attached between a respective handle housing and a respective one of the primary sections of the sliding mechanism. As such, the springs' primary function is to bias the primary sections of the sliding mechanism to their closed positions within their respective handle housings.
>
> The biasing mechanism or system 144, 146 for placing the flexible circuit 114 under tension is preferably the primary biasing mechanism for causing the sections of the sliding mechanism to automatically close together. The biasing means 160 provided between the handle housings and respective primary sections of the slide mechanism are the primary biasing means for causing the primary sections of the slide mechanism to automatically withdraw within their respective handle housings. Consequently, the biasing means 160 provided between the handle housings and respective primary sections of the slide mechanism and the biasing mechanism or system 144, 146 for placing the flexible circuit under tension together act as a combined means of automatically biasing the handle housings to their closed position.

RX-0116 (Kessler), ¶¶ 99-100.

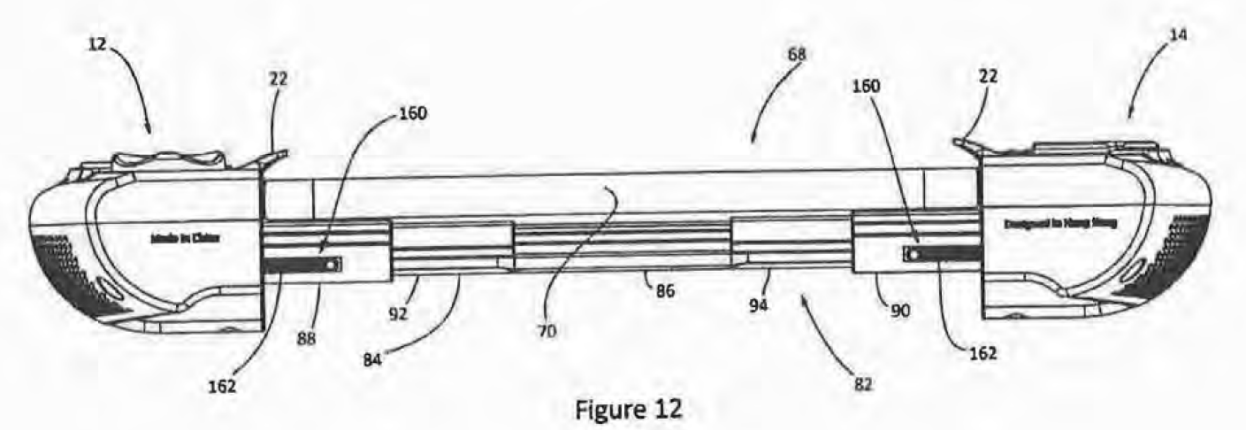


Figure 12

FIG. 12 of RX-0116 (Kessler)

Nintendo has not shown by clear and convincing evidence that Kessler discloses that the retention mechanism is the mechanical arrangement, as shown in Figure 14, the mechanical arrangement, as shown in Figures 27 and 29, or equivalents thereof. *See* Resps. Br. at 124-25. The springs and the cylindrical component in Kessler are only used "to bias the primary sections of the sliding mechanism to their closed positions within their respective handle housings." RX-0116 (Kessler), ¶ 99. As Dr. Singhose testified, the springs in Kessler cannot couple the structural bridge to a control module, and other unrelated components perform this function without the springs. CX-0182C (Singhose RWS) at Q/A 187-189. Nintendo has not shown by clear and convincing evidence that the springs and the cylindrical component are used to couple the structural bridge to a control module as the claim requires.

The administrative law judge thus finds that Nintendo has not shown by clear and convincing evidence that Kessler anticipates claim 12 of the '393 patent.

2. Anticipation – Nintendo Switch

The Nintendo Switch was released in the United States before the filing date of the application leading to the '393 patent, and qualifies as prior art to the '497 patent. *See* RX-0061C (Thorng DWS) at Q/A 65 (on sale date March 3, 2017).

Nintendo argues, in part:

> The Nintendo Switch does not infringe claims 1–4, 6–8, 17–18, but if the ALJ disagrees, then those claims are anticipated (35 U.S.C. § 102) because the Nintendo Switch was on sale before the asserted patent was filed and the claims are not entitled to an earlier priority date.
>
> * * *
>
> The Nintendo Switch was publicly available and on sale before the application for the '393 patent was filed, RX-61C, Q65 (on sale date March 3, 2017); JX-1, (22) (filed Dec. 21, 2018), and Gamevice asserts that this prior art product satisfies each limitation in the asserted claims, *see* CPBr.38–72. So, Gamevice "bears the burden of establishing that its claimed invention is entitled to an earlier priority date," *D Three II*, 890 F.3d at 1049, otherwise the claims are anticipated, *see Vanmoor v. Wal-Mart Stores, Inc.*, 201 F.3d 1363, 1366 (Fed. Cir. 2000) (holding that plaintiff's infringement contentions against a prior art product supported defendant's prima facie case of anticipation); *Bennett Regul. Guards, Inc. v. Canadian Meter Co.*, 184 F. App'x 977, 978 n.1 (Fed. Cir. 2006) (same).
>
> * * *
>
> Nintendo bears the ultimate burden of persuasion to show that the asserted patent is invalid by clear and convincing evidence. *PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1305 (Fed. Cir. 2008). But "once [Nintendo] has established a prima facie case of invalidity and its burden is met, the party relying on validity is then obligated to come forward with evidence to the contrary." *Id*. at 1305 (internal quotation marks omitted).
>
> Nintendo has made a *prima facie* case of anticipation based on the Nintendo Switch's prior art date and Gamevice's infringement arguments. *PowerOasis*, 522 F.3d at 1305 ("That which would literally infringe if later in time anticipates if earlier." (citation and alteration in original omitted)). Thus, Gamevice must "produc[e] sufficient evidence and argument to show that [the] ancestor [patent applications] to the [asserted patent] with a filing date prior to the [Nintendo Switch's prior art] date, contain[] a written description that supports all the limitations of the [asserted claims]," *Tech. Licensing Corp. v. Videotek, Inc.*, 545 F.3d 1316, 1327 (Fed. Cir. 2008); 35 U.S.C. § 120. And Gamevice must show "continuing disclosure through the chain of applications, without hiatus, to ultimately secure the benefit of the earliest filing date"—*i.e.*, each link in the priority chain must independently have adequate written-description support, otherwise the chain is broken. *In re Hogan*, 559 F.2d 595, 609 (C.C.P.A. 1977) (citation omitted) (holding that the priority chain was broken by omission of relevant disclosure in an intervening patent application).
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The written-description requirement was intended for cases such as this—where a patentee files repeated continuation applications intending to capture, not its own invention, but the innovation of others. As the Federal Circuit put it in *PowerOasis*, "[t]he written description requirement operates as a timing mechanism to ensure fair play in the presentation of claims after the original filing date and to guard against manipulation of that process by the patent applicant." 522 F.3d at 1306 (alteration in original and citation omitted). "[T]he test for sufficiency [of written description under § 112] is whether the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date." *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc). The disclosure of the claimed invention can be actual or inherent, but "the missing descriptive matter must *necessarily* be present in the [earlier] application's specification such that one skilled in the art would recognize such a disclosure." *Tronzo v. Biomet, Inc.*, 156 F.3d 1154, 1159 (Fed. Cir. 1998); *PowerOasis*, 522 F.3d at 1306–07.

* * *

Gamevice's claims are invalid as anticipated because they are not entitled to an earlier priority date. This is true at least because the inventors never disclosed possession of the now-claimed (1) integrated computing device and structural bridge, (2) combination of a structural bridge and confinement structures interacting with a computing device, but lacking an adjustable fastening mechanism, or (3) device with a communication link on each confinement structure configured to communicate with the computing device.

In its response to each of these points, Gamevice improperly conflates the written description requirement with disclaimer, preferred embodiments, boilerplate language, enablement, and obviousness. *See* CPBr.145–60. Not one of these is the relevant inquiry. First, "the question is not whether the patentee in the [earlier] specification 'disclaimed' the scope of the [later] patent," *Anascape, Ltd. v. Nintendo of America Inc.*, 601 F.3d 1333, 1339 (Fed. Cir. 2010) (reversing district court's contrary conclusion); indeed, a POSA would not understand an inventor to disclaim what the inventor never possessed, Stern Tr. 535:18–22. Second, "[t]he question is not whether the broad scope of Plaintiff's asserted claims should be limited to the preferred embodiments." *D Three Enters., LLC v. Rillito River Solar LLC*, 2017 WL 1023389, at *6 (D. Colo Mar. 15, 2017) ("*D Three I*"), *aff'd sub nom*, *D Three II*, 890 F.3d at 1052. Third, "boilerplate language at the end of the [specification] is not sufficient to show adequate disclosure of the actual [claimed] combinations." *D Three II*, 890 F.3d at 1051. Fourth, "[i]t is not a question whether one skilled in the art might be able to construct the patentee's device from the teachings of the disclosure of the application [*i.e.*, enablement]." *Univ. of Rochester v. G.D. Searle & Co.*, 358 F.3d 916, 923 (Fed. Cir. 2004) (citation omitted); *Ariad*, 598 F.3d at 1352. Fifth, "[o]bviousness simply is not enough; the subject matter must be disclosed to establish possession," *PowerOasis*,

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522 F.3d at 1310 (citation omitted), and a POSA's knowledge cannot supplant that requirement, *Rivera v. ITC*, 857 F.3d 1315, 1322 (Fed. Cir. 2017). *Ariad*, 598 F.3d at 1352.

Instead, the written description inquiry requires "an objective inquiry into the four corners of the specification from the perspective of a [POSA]" and asks whether the patent "reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date." *Ariad*, 598 F.3d at 1351. Under this proper legal framework, the patent applications in the alleged priority chain do not provide adequate written description.

Resps. Br. at 99-102.

Gamevice argues, in part:

Nintendo has failed to prove lack of written description of the '393 patent by clear and convincing evidence. *See Ariad Pharms., Inc. v. Eli Lilly & Co*., 598 F.3d 1336, 1354 (Fed. Cir. 2010) (en banc). Moreover, the asserted claims of the '393 patent are adequately supported by the written description of the '119 and '453 priority patents, whose filing dates precede the March 3, 2017 public release of the Nintendo Switch in the United States. Thus, the Nintendo Switch is not prior art to the asserted claims and does not anticipate them.

Compliance with the written description requirement is a question of fact which must be resolved on a case-by-case basis. *AbbVie Deutschland GmbH & Co., KG v. Janssen Biotech, Inc*., 759 F.3d 1285, 1297 (Fed. Cir. 2014); *Enzo Biochem, Inc. v. Gen-Probe, Inc.*, 323 F.3d 956, 963 (Fed. Cir. 2002); *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555, 1563 (Fed. Cir. 1991). The test for sufficiency of a written description is "whether the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date." *Ariad*, 598 F.3d at 1351. This test requires "an objective inquiry into the four corners of the specification from the perspective of a person of ordinary skill in the art." *Id*. Factors for evaluating the adequacy of the disclosure include "the existing knowledge in the particular field, the extent and content of the prior art, the maturity of the science or technology, and the predictability of the aspect at issue." *Id*. For example, where the field of the invention is a predictable art, a lower level of detail is required to satisfy the written description requirement than for unpredictable arts. *See Hologic, Inc. v. Smith & Nephew, Inc.*, 884 F.3d 1357, 1361 (Fed. Cir. 2018); *Bilstad v. Wakalopulos*, 386 F.3d 1116, 1126 (Fed. Cir. 2004).

With respect to the factors for evaluating the adequacy of the disclosure, by February 2015, when the application for the '119 priority patent was filed, game controllers were a relatively mature technology. CX-0182C, Singhose Rebuttal WS at Q/A 453. Persons skilled in the art had significant existing knowledge in the field of game controllers because there was extensive prior art on game controllers.

> *Id*. Moreover, the '393 patents and its prior patents expressly teach that "changes may be made in detail, especially in matters of structure and arrangements of parts within the principles of the present invention." JX-0001 at 17:39-51; RX-0219, '119 patent at 9:49-61; RX-228, '453 patent at 16:49-61; *see* CX-0182C at Q/A 478. Finally, with regard to mechanical components such as those at issue here, persons skilled in the art would have readily been able to predict its behavior and performance. *See* CX-0182C at Q/A 453.

Compl. Br. at 151-53.

The Staff argues, in part:

> Nintendo contends that the accused Nintendo Switch product anticipates claims 1-4, 6-8, and 16-18 of the '393 patent. Resps. P.H. Br. at 109-110. The Nintendo Switch was released in the United States before the filing date of the application leading to the '393 patent. *See id.* However, as discussed above, the '393 patent claims the benefit of earlier filed applications. *See* JX-0001 ('393 patent). Gamevice contends that claims 1-4, 6, 7, 17, and 18 are entitled to an effective filing date of February 2, 2015 based on U.S. Patent No. 9,126,119, and claims 8-12, 16, and 19-22 are entitled to an effective filing date of August 31, 2015 based on U.S. Patent No. 9,592,453. *See* Compl. P.H. Br. at 109; CX-0182C (Singhose RWS) at Q/A 62. If these claims are entitled to those earlier effective filing dates, then the Nintendo Switch (RPX-0009) is not prior art. If, however, Gamevice is not entitled to those earlier effective filing dates, then the Nintendo Switch would qualify as prior art under 35 U.S.C. § 102(a)(1).
>
> Regardless, for the reasons set forth above in addressing infringement, the Staff is of the view that the accused Nintendo Switch does not satisfy any asserted claim and thus cannot be invalidating art. Accordingly, the Nintendo Switch does not anticipate any claim of the '393 patent.

Staff Br. at 85-86.

The administrative law judge finds that Nintendo has not shown by clear and convincing evidence that the Nintendo Switch anticipates the asserted claims of the '393 patent.

As noted above, the Nintendo Switch does not infringe the asserted claims of the '393 patent. Therefore, the Nintendo Switch does not invalidate the asserted claims of the '393 patent.

However, even were the Nintendo Switch found to infringe the asserted claims of the '393 patent, the asserted claims of the '393 patent are adequately supported by the written

description of the ’119 and ’453 priority patents, whose filing dates precede the March 3, 2017 public release of the Nintendo Switch in the United States.

As explained further below in Section VIII.B, the ’119 and ’453 priority patents provide adequate written description support for a “structural bridge” that is internal to a “computing device.” *See* CX-0182C (Singhose RWS) at Q/A 454-61. They each disclose a structural bridge disposed between two side structures that may adaptively accommodate a computing device. *See, e.g.*, RX-0219 (’119 patent) at col. 2, ln. 64 – col. 3, ln. 5, col. 3, lns. 34-42; CX-0182C (Singhose RWS) at Q/A 454-56; RX-0228 (’453 patent) at Abstract, col. 1, lns. 31-37, col. 3, lns. 59-67, col. 4, lns. 30-38, col. 11, lns. 17-22, col. 11, lns. 32-41; CX-0182C (Singhose RWS) at Q/A 458-61.

Moreover, the ’119 patent discloses other preferred options lacking an adjustable fastening mechanism, including solid connection 324 and slip fit 326. *See* CX-0182C (Singhose RWS) at Q/A 474-79. The ’119 patent’s disclosure is not limited to a single embodiment. *See id.* at Q/A 427-36, 486-87. The ’119 patent describes the fastening mechanism as merely one further feature of one preferred embodiment. *See id.* at col. 8, lns. 22-24 (“FIG. 16 further shows that in a preferred embodiment, the communication port 310, further includes a fastening mechanism 320.”); CX-0182C (Singhose RWS) at Q/A 476.

Furthermore, the ’119 and ’453 priority patents provide adequate written description support for “communication links” comprised in the pair of confinement structures. Nintendo argues that there is no description of more than one communication link with the computing device as part of a pair of confinement structures. *See* Resps. Br. at 101-02. However, the administrative law judge finds that the patents provide adequate written description support for

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the "communication link" claim limitations in claims 1 and 17. *See* CX-0182C (Singhose RWS) at Q/A 466.

The administrative law judge thus finds that Nintendo has not shown by clear and convincing evidence that the Nintendo Switch anticipates the asserted claims of the '393 patent.

3. Obviousness – PhoneJoy in View of iPhone

PhoneJoy was publicly available prior to February 2, 2015 and therefore qualifies as prior art to the '393 patent. *See* RX-0059C (Cameron DWS) at Q/A 248-66; JX-0036C (Schroeder Dep.) at 73-74, 81. The Apple iPhone 5 ("iPhone") (RPX-0033; RPX-0035) is a smart phone device that was publicly available prior to February 2, 2015, therefore is prior art to the '393 patent. *See* RX-0059C (Cameron DWS) at Q/A 168-73; JX-0013 (Bateman Decl.), ¶¶ 10-15.

a. Claims 1-4 and 6-7

Nintendo argues, in part:

> PhoneJoy discloses all limitations of claim 1 when considering Gamevice's construction and interpretation. RX-59C, Q269–85, 303–4; RX-59C.A, Q269, 283, 285. Gamevice argues that PhoneJoy in view of iPhone fails to disclose three limitations: (1) claim 1d each confinement structure comprising a communication link; (2) claim 1e a rigid structural bridge; and (3) claim 1f a passageway. CPBr.117–19. But Gamevice's arguments are contrary to the disclosure of the '393 patent, and are inconsistent with both the infringement contentions, and the understanding of a POSA. RX-59C, Q269–85, 303–4.
>
> First, Gamevice argues that PhoneJoy does not disclose a communication link (claim 1d) because PhoneJoy's gripping studs do not have any wiring and a POSA would not be motivated to add any. CPBr.117–18; CX-182C, Q166–70. Gamevice ignores the understanding of a POSA and disregards Dr. Cameron's testimony. Gamevice does not dispute that "confinement structures" is not a term of art. Cameron Tr. 756:7–24; RX-59C, Q279. Gamevice also does not dispute that each of the ends of PhoneJoy's ribbon cable disclose two communication links. Tr. 887:5–12; CPBr.117–18. But Gamevice attempts to limit PhoneJoy's confinement structure to its rubber gripping studs, ignoring Dr. Cameron's testimony. Cameron Tr. 715:14–716:9; CPBr.117–18; CX-182C, Q166. Dr. Cameron testified that a confinement structure is arbitrary, so a POSA could designate part of the PCB where the ribbon cable ends as part of the confinement structure. Tr. 756:7–24; RX-59C, Q278–79, 304; RX-502C; RX-501C. The '393

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patent describes that a communication link can be on the opposite surface of the confinement structure. JX-1.21–22; CX-182C, Q468–72. Further, Dr. Cameron analyzed this limitation under Gamevice's interpretation and Gamevice does not make any distinction between electronic and electrical communication. CPBr.45, 47–48, 112.

Second, Gamevice argues that PhoneJoy does not disclose a rigid structural bridge (claim 1e) because PhoneJoy's bridge is adjustable. CPBr.118; CX-182C, Q173. Gamevice's argument is inconsistent with the disclosure of the '393 patent and the understanding of a POSA. As Dr. Cameron testified, the sheet steel that is used to form part of PhoneJoy's bridge gives the bridge its rigid properties. RX-59C, Q147; 280–81; RX-544C. This is consistent with the '393 patent, which only describes rigidity of the structural bridge in terms of the materials used. JX-1, 9:8–15, 11:51–57, 15:51–54. Dr. Singhose improperly adds a requirement to rigidity, which is best shown by his disagreement that a steel ladder is rigid. Tr. 887:13–15. Further, Gamevice argues that PhoneJoy's structural bridge is not disposed between and secured to its confinement structures because PhoneJoy's bridge is not secured to the gripping studs. CPBr.118–19; CX-182C, Q173. Gamevice's argument ignores Dr. Cameron's testimony and limits her identification of PhoneJoy's confinement structures to its gripping studs. What confinement structures consist of is arbitrary and include portions other than PhoneJoy's gripping studs. RX-59C, Q277–81.

Third, Gamevice argues that PhoneJoy does not disclose a passageway because PhoneJoy's ribbon cable does not run from one gripping stud to another. CPBr.118; Tr. 844:2–8. First, this argument is based on a mischaracterization of Dr. Cameron's identification of confinement structures. The ribbon cable does run from one confinement structure to the other, because Dr. Cameron testified that a POSA could designate part of the PCB where the ribbon cable ends as part of the confinement structure. Tr. 756:7–24; RX-59C, Q278–79, 304; RX-502C; RX-501C. Second, Gamevice's argument is unsupported by the claim language and conflicts with its infringement contentions. In its infringement contentions, Gamevice argues that the entire area of the alleged passageway in the Nintendo Switch does not need to hold a communication wire and that claim 1 does not require that the Nintendo Switch's rails must be in communication with each other. CPBr.47–48. Gamevice contradicts that argument here, stating that PhoneJoy's communication link "does not run from one gripping stud to another, *as the claim requires*." CPBr.119. The FPCs in the Nintendo Switch do not run from one rail to the other, so the Nintendo Switch does not infringe under Gamevice's construction of passageway.

Gamevice does not contest that the combination of PhoneJoy and iPhone discloses the remaining limitations of claim 1. CPBr.117–19; RPBr.149–50. Claim 1pre: PhoneJoy, used with iPhone, is a combination. RX-59C, Q273–74. Claim 1a: iPhone is electronic equipment controlled by a CPU. *Id.*, Q184–85; 267; RX-871. Claim 1b: PhoneJoy contains side structures and gripping studs that comprise

part of the pair of confinement structures that interact with iPhone. RX-59C, Q138, 276–77, 304; RX-507C. Claim 1c: PhoneJoy's confinement structures interact with iPhone on no more than three sides. RX-59C, Q276–77, 304; RX-492C. Claim 1g: PhoneJoy's passageway promotes electrical communication via its ribbon cable running between the PCB of each control module. RX-59C, Q279, 280–81, 304; RX-503C. Claim 1h: PhoneJoy discloses a pair of control modules. RX-59C, Q284–85, 304; RX-544C. Claim 1i: Each control module of PhoneJoy is secured to and interacts with each confinement structure. RX-59C, Q284–85, 304; RX-544C. Claim 1j: The PCB of each control module is in communication with the ribbon cable of PhoneJoy. RX-59C, Q279, 285, 304. Claim 1k: PhoneJoy's gripping studs, which are part of the confinement structure, are separate and distinct from each control module. RX-59C, Q277, 304; RX-507C. Claim 1l: PhoneJoy's structural bridge is separate and distinct from its confinement structures. RX-59C, Q381, 304; RX-544C.

* * *

Gamevice does not contest that PhoneJoy and iPhone disclose claims 2–4 and 6–7, but instead relies on its arguments concerning claim 1. CPBr.119; CX-182C, Q175. PhoneJoy and iPhone render claims 2–4 and 6–7 obvious. RX-59C, Q305–9; RPBr.150. PhoneJoy and iPhone render claim 2 obvious because PhoneJoy's rigid structural bridge supports iPhone's electronics. RX-59C, Q304; RX-871; RX-492C. PhoneJoy and iPhone render claim 3 obvious because iPhone comprises a back with an internal surface and external surface that cooperates with at least two opposing sides of iPhone. RX-59C, Q185, 306; RX-871. PhoneJoy and iPhone render claim 4 obvious because PhoneJoy's rigid structural bridge cooperates with iPhone's back. RX-59C, Q307; RX-494C. PhoneJoy and iPhone render claim 6 obvious because PhoneJoy's control modules pass signals to iPhone that control images on iPhone's display screen. RX-59C, Q185, 297, 308. PhoneJoy and iPhone render claim 7 obvious because iPhone contains a communication module supported by PhoneJoy's rigid structural bridge. RX-59C, Q309; RX-871.

Resps. Br. at 126-29 (footnote omitted).

Gamevice argues, in part:

The evidence showed that claim 1 is valid over the PhoneJoy combination. *See* CX-0182C at Q/A 165. First, the PhoneJoy combination fails to disclose "a pair of confinement structures . . . comprising a communication link, each of the communication links configured for electronic communication with the computing device." *See id.* at Q/A 166. Nintendo identifies "gripping studs" as disclosing the confinement structures, but they are flimsy rubber pieces that do not have any wiring, and therefore, they do not have any communication links for electronic communication. *See id.* at Q/A 166; CDX-0003C.0008; Cameron Tr. 716:1-9.

Also, the sides of the PhoneJoy control modules fail to disclose the "confinement structures" because they are molded into one integrated piece with the PhoneJoy control modules, and therefore, are not "separate and distinct" from the electronic game control modules, and they form a structural portion of the electronic game control modules. Cameron Tr. 716:10-18.

The evidence also showed that a POSITA would not modify these gripping studs to add electrical or electronic wiring because they do not have sufficient space or structural strength to support such wiring, let alone a Lightning connector or an audio jack. *See* CX-0182C at Q/A 167-68. Moreover, even if both Lightning connector and audio jack are somehow added to the gripping studs or the sides of the PhoneJoy control modules, the resulting combination would still fail to disclose this limitation because they would be added on the same side, rather than one on each side. *See id.* at Q/A 168. Similarly, a POSITA would not combine the components of iPega with PhoneJoy to arrive at this limitation because the resulting combination would still fail to disclose this limitation since the iPega does not have any confinement structure comprising a communication link. *See id.* at Q/A 169-70. The flexible printed circuit in the iPega only goes through the bridge, not the components that Nintendo identified as the "confinement structures." *See id.* Further, Nintendo's argument that PhoneJoy's flexible printed circuit satisfies the "communication links configured for electronic communication" is inconsistent with Nintendo's non-infringement argument that the flexible printed circuits in the Nintendo Switch are not capable of electronic communication because they are "dumb" wires that only pass electrical signals. *See id.* at Q/A 171. If Nintendo's non-infringement argument is correct, then PhoneJoy fails to disclose this limitation, and vice versa. *See id.* The PhoneJoy combination fails to disclose other limitations in claim 1 that recite "confinement structure" and "communication link" for the reasons. *See id.* at Q/A 172.

Second, the PhoneJoy combination fails to disclose " a rigid structural bridge" limitation. *See id.* at Q/A 173. The telescoping bridge in the PhoneJoy can be collapsed and tucked inside PhoneJoy's control modules, rendering it non-rigid. Further, PhoneJoy's telescoping bridge is not disposed between the "pair of confinement structures," as the claim requires. *See id.* The bridge is only connected to PhoneJoy's bottom covers, and therefore, it is not secured to the gripping studs or the sides of the PhoneJoy control modules, which are not part of the bottom covers. *See id.*

Third, the PhoneJoy combination fails to disclose the "passageway" limitation. *See id.* at Q/A 174. Nintendo's purported passageway is not located between the gripping studs, which are Nintendo's purported confinement structures. *See id.* at Q/A 174. Also, the printed flexible circuit in PhoneJoy does not go through each purported "confinement structure," as the claim requires. *See id.*

Furthermore, the PhoneJoy combination fails to render dependent claims 2-

4 and 6-7 obvious because it fails to render claim 1 obvious. *See id.* at Q/A 175.

Compl. Br. at 120-22.

The Staff argues, in part:

> The Apple iPhone 5 ("iPhone") (RPX-0033; RPX-0035) is a smart phone device that was publicly available prior to February 2, 2015, and thus qualifies as prior art under 35 U.S.C. § 102(a)(1). *See* Resps. P.H. Br. at 141; RX-0059C (Cameron WS) at Q/A 168-173; JX-0013 (Bateman Decl.). Nintendo relies upon the iPhone for use as a computing device in combination with other prior art. *Id.*
>
> * * *
>
> PhoneJoy (RPX-0014; RPX-0013; RPX-0004; RPX-0015; RPX-0016; RPX-0017; RPX-0073; RPX-0087; RPX-0088; RPX-0089) is a game controller for iPhones and Android devices that was designed to removably clamp to a phone using tension from a spring-loaded bridge. Resps. P.H. Br. at 148. PhoneJoy was publicly available prior to February 2, 2015 and thus qualifies as prior art under 35 U.S.C. § 102(a)(1). RX-0059C (Cameron WS) at Q/A 248-66; JX-0036C (Schroeder Dep. Tr.). However, PhoneJoy fails to disclose various limitations of the asserted claims of the '393 patent. *See* Compl. P.H. Br. at 117-122. For example, PhoneJoy fails to teach the use of confinement structures having communication links, a rigid structural bridge, and a passageway. *Id.* (Singhose testimony cited therein).
>
> * * *
>
> To the extent that Respondents contend that certain combinations of references and/or knowledge common to one of ordinary skill in the art render one or more of the asserted claims obvious, Prof. Singhose testified that the asserted claims are not rendered obvious by the combinations relied upon by Respondents. Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337. Accordingly, Nintendo has failed to show by clear and convincing evidence that the asserted combinations would have been obvious.
>
> For example, none of the asserted combinations teaches or suggests "a combination" having: (1) "a pair of confinement structures, the pair of confinement structures interacting with the computing device and adjacent at least two opposing sides of the computing device, but not more than three sides of the sides of the computing device;" (2) "each of the pair of confinement structures comprising a communication link;" or (3) "each of the communication links configured for electronic communication with the computing device." Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337.

Staff Br. at 89, 92-93.

The administrative law judge finds that Nintendo has not shown by clear and convincing evidence that the combination of PhoneJoy and iPhone renders independent claim 1 of the '393 patent obvious. For the same reasons, Nintendo has not shown by clear and convincing evidence that the combination of PhoneJoy and iPhone renders dependent claims 2-4 and 6-7 obvious.

Regarding the limitation, "each of the pair of confinement structures comprising a communication link," Nintendo argues that each confinement structure comprises a communication link because one of ordinary skill in the art could designate the portion of the PCB where the ribbon cable ends as part of the confinement structure. *See* Resps. Br. at 127. However, the administrative law judge finds this argument unpersuasive. The flexible printed circuit in the PhoneJoy is not "comprised" in any of the identified confinement structures. *See* CX-0182C (Singhose RWS) at Q/A 166.

Moreover, were the confinement structures defined to include the portion of the PCB where the ribbon cable ends as part of the confinement structure, as argued by Nintendo, *see* Resps. Br. at 127, the so-defined "confinement structures" would form one integrated piece with the PhoneJoy control modules, and therefore, would not be "separate and distinct" from the electronic game control modules, and instead form a structural portion of the electronic game control modules. *See* CX-0182C (Singhose RWS) at Q/A 172.

Gamevice argues that the PhoneJoy combination fails to disclose " a rigid structural bridge" limitation because the telescoping bridge in the PhoneJoy can be collapsed and tucked inside PhoneJoy's control modules, rendering it non-rigid. *See* Compl. Br. at 121. However, Dr. Singhose's argument that a telescoping structure cannot be rigid is inconsistent with the understanding of one of ordinary skill in the art. *See* RX-0059C (Cameron DWS) at Q/A 147, 280-81. Dr. Cameron identified Phonejoy's structural bridge as satisfying this limitation. *See id.*

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at Q/A 281. One of ordinary skill in the art would understand that Phonejoy's structural bridge is rigid because it supports the computing device, and that the material of the bridge can render it rigid regardless of whether the bridge is telescoping. *See id.*

Gamevice further argues that the PhoneJoy combination fails to disclose the "passageway" limitation because Nintendo's purported passageway is not located between the gripping studs. *See* Compl. Br. at 121. Nintendo argues that one of ordinary skill in the art could designate the portion of the PCB where the ribbon cable ends as part of the confinement structure. *See* Resps. Br. at 128. As noted above, this argument is unpersuasive, and would also require that the confinement structure not be "separate and distinct" from the electronic game module. Hence, the administrative law judge finds that the PhoneJoy combination fails to disclose the "passageway" limitation.

The administrative law judge thus finds that Nintendo has not shown by clear and convincing evidence that the combination of PhoneJoy and iPhone renders claim 1 obvious, or claims 2-4 and 6-7, dependent thereupon.

b. Claim 8

Nintendo argues, in part:

> PhoneJoy and iPhone disclose all limitations of independent claim 8 when considering Gamevice's construction and interpretation. RX-59C, Q286–89. Gamevice only contests one element: whether PhoneJoy discloses a void (claim 8d). CPBr.119; CX-182C, Q176–81; Tr. 844:16–19. Gamevice alleges that a through-hole is required. But this is inconsistent with the plain and ordinary meaning of "void," which is merely "empty space." Tr. 742:21–743:3. Gamevice's argument also conflicts with its domestic industry position on the Razer Kishi, where the identified void is covered by plastic cover plates of the bridge. Moreover, during the hearing it was shown that some of PhoneJoy's voids are through holes (not required). Gamevice fails to dispute that it would be obvious for a POSA to add more through holes to PhoneJoy's bridge (similar to the existing through holes) and has waived that argument. CPBr.119.

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Dr. Cameron identified numerous voids in the structural bridge, including through holes. RX-59C Q283, Tr. 716:19–21; 717:14–718:3; 756:25–762:20, RDX-508–12 (RPX-87). Gamevice argues that PhoneJoy's bridge does not disclose a void (claim 8d) because the identified voids are not through holes that run through the thickness of the bridge. CPBr.119; CX-182C, Q177–78. This is incorrect. First, this is contradicted by Dr. Singhose's testimony about all that is required to determine whether the void limitation is met. Tr. 857:4–8 ("Q. You know someone is infringing the void limitation if you start in the void and start moving up, down, left, and right and run into the structural bridge, right? A. Yes.").

Second, a through-hole is found in PhoneJoy. RPX-16 is a PhoneJoy with a paper product label on the back of the bridge, and RPX-89 is another PhoneJoy with the paper product label removed. RDX-601–3 (depicting through holes, RPX-89); RDX-600.22 (same, top right, RPX-16, 89); RDX-604 (same, bottom right, RPX-16); Singhose Tr. 860:20–867:14. With the paper label removed, a red cloth under RPX-89 can be viewed through 4 through-holes in the bridge. RPX-600.22 (depicting through holes, RPX-16, 89); Tr. 865:4–20. Dr. Singhose admits that the through-holes have four sides and communicate with a material of the structural bridge and thus are voids under his test. RDX-600.22 (showing RPX-16, 89); Tr. 845:3–25, 857:4–8, 865:21–866:6. A simple probe placed through one of these holes in RPX-16 goes through the structural bridge. Tr. 866:7–868:23; RDX-604–7 (showing probe going through bridge, RPX-16). Dr. Singhose confirmed that a probe went all the way through material of the structural bridge. Tr. 867:5–8. At the hearing, Dr. Singhose suggested another requirement not found in claim 8—that the through-hole must go through the maximum thickness of the bridge. Tr.866:21–867:8. That these voids in PhoneJoy may be covered by a paper label is of no consequence, because Dr. Singhose testified that if the probe passed through a thin sheet of paper, that would not be a problem or relevant to his void test. Tr. 859:25–860:11.

Despite this, and his other testimony that PhoneJoy's label does not contribute a great deal to the structural bridge function, Dr. Singhose changed his position again and argued that PhoneJoy's thin paper label is an integral component, because it may protect bridge components. Tr. 868:25–869:25. This is nonsensical, because the paper label is visible on both sides of the hole in the bridge and protects nothing. Dr. Singhose's analysis also conflicts with his domestic industry analysis, where he argues that the hard plastic bridge plates of the Razer Kishi, glued to the flexible portion of the Kishi's bridge, are not integral components (because they cover up the void of the Kishi) but a thin paper label on PhoneJoy's bridge, easily removable, is an integral component. Tr. 856:12–24, 869:1–25. These contradictory positions cannot both be true. If PhoneJoy's thin, removable, paper label is an integral portion of its bridge (and thus the void does not go all the way through the bridge as Gamevice alleges is required), then the glued, hard plastic plates of the Razer Kishi must also be an integral portion of its bridge (and thus the void does not go all the way through the bridge as Gamevice alleges is required).

> Third, Dr. Cameron identified other additional voids that are not through-holes. Tr. 759:19–761:20; RX-508–10, 512 (depicting voids, RPX-87). Dr. Singhose testified that these indentations in the structural bridge have four sides and are deep. Tr. 844:20–845:25, CDX-3C.9 (RPX-14). Dr. Singhose acknowledged that if the ALJ finds that voids do not have to be through holes, then his (and Gamevice's) only argument would be obviated, and these structures would be voids. Tr. 846:1–19. If a void must be a through-hole, Dr. Singhose acknowledged that a plastic part with a hole was a known alternative to a solid plastic piece. Tr. 852:9–12. And Dr. Cameron confirmed that it is common to add voids to thick plastic pieces for easier manufacturing. Tr. 758:23–759:18; RX-59C Q137, 289.
>
> Gamevice does not contest that PhoneJoy in view of iPhone discloses the remaining limitations of claim 8. CPBr.119; RPBr.150–51. Claim 8pre: PhoneJoy, used with iPhone, is a combination. RX-59C, Q274–75. Claim 8a: PhoneJoy discloses an adjustable bridge with first and second ends associated with control modules, where the bridge can collapse within each control module. RX-59C, Q281, 288; RX-59C.A, Q288; RX-544C. Claim 8b: PhoneJoy's bridge is configured for adaptation because it adjusts to accommodate iPhone. RX-59C, Q281, 288; RX-59C.A, Q288. Claim 8c: PhoneJoy's bridge accommodates the length of iPhone. RX-59C, Q281, 288; RX-492C.

Resps. Br. at 130-32.

Gamevice argues, in part:

> The evidence showed that claim 8 is valid over the PhoneJoy combination. *See* CX-0182C, Singhose Rebuttal WS Q/A 176. The PhoneJoy combination fails to disclose the "void" limitation in claim 8 because the "holes" in the PhoneJoy's bridge identified by Nintendo are indentations and are not through holes that run through the entire thickness of the bridge. *See id.* at Q/A 177-78; CDX-0003C.0009. The PhoneJoy's indentations are different from the voids in the Kishi because any indentations provided in the PhoneJoy's bridge are covered by metal plates, which are integral components of PhoneJoy's bridge structure. *See* CX-0182C at Q/A 179-80. On the other hand, the plates covering the voids in the Kishi bridge are not part of Kishi's structural bridge because they do not perform any structural bridge function. *See id.* at Q/A 180-81.
>
> During the hearing, Nintendo identified for the first time in this investigation that the holes in the middle section of the PhoneJoy's telescoping bridge meet the void limitation in claim 8. But Nintendo waived this argument, and it should be barred from belatedly identifying these holes as satisfying the void limitation. Nintendo will point to one vague statement in its pre-hearing brief ("PhoneJoy's structural bridge contains a series of small rectangular perforations (each a void) in the mid-section of the bridge . . .") as allegedly providing support for this newfound void, but the rest of the brief makes clear that the "perforations"

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refer to the indentations shown in Dr. Cameron's demonstrative slide RDX-0001.49. Indeed, Nintendo never included a picture of these newfound holes in Dr. Cameron's witness statement, demonstrative slide, or Nintendo's pre-hearing brief. Allowing Nintendo to introduce this new argument based on a previously-undisclosed mapping would significantly prejudice Gamevice because it did not have any opportunity to develop and present rebuttal evidence with Gamevice's technical expert during this investigation. Therefore, Nintendo should be barred from arguing that the holes in the middle section of the telescoping bridge in the PhoneJoy satisfy the "void" limitation in claim 8.

Even if Nintendo is permitted to belatedly present this argument, the evidence failed to show that the holes in the middle section of the telescoping bridge are through holes. The holes are located only on the bottom portion of the telescoping bridge, and a metal plate is placed on it, such that the holes do not go through the entire thickness of the bridge. *See* Singhose Tr. 865:3-25.

Compl. Br. at 122-23.

The Staff argues, in part:

The Apple iPhone 5 ("iPhone") (RPX-0033; RPX-0035) is a smart phone device that was publicly available prior to February 2, 2015, and thus qualifies as prior art under 35 U.S.C. § 102(a)(1). *See* Resps. P.H. Br. at 141; RX-0059C (Cameron WS) at Q/A 168-173; JX-0013 (Bateman Decl.). Nintendo relies upon the iPhone for use as a computing device in combination with other prior art. *Id.*

* * *

PhoneJoy (RPX-0014; RPX-0013; RPX-0004; RPX-0015; RPX-0016; RPX-0017; RPX-0073; RPX-0087; RPX-0088; RPX-0089) is a game controller for iPhones and Android devices that was designed to removably clamp to a phone using tension from a spring-loaded bridge. Resps. P.H. Br. at 148. PhoneJoy was publicly available prior to February 2, 2015 and thus qualifies as prior art under 35 U.S.C. § 102(a)(1). RX-0059C (Cameron WS) at Q/A 248-66; JX-0036C (Schroeder Dep. Tr.). However, PhoneJoy fails to disclose various limitations of the asserted claims of the '393 patent. *See* Compl. P.H. Br. at 117-122. For example, PhoneJoy fails to teach the use of confinement structures having communication links, a rigid structural bridge, and a passageway. *Id.* (Singhose testimony cited therein).

* * *

To the extent that Respondents contend that certain combinations of references and/or knowledge common to one of ordinary skill in the art render one or more of the asserted claims obvious, Prof. Singhose testified that the asserted claims are not rendered obvious by the combinations relied upon by Respondents.

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> Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337. Accordingly, Nintendo has failed to show by clear and convincing evidence that the asserted combinations would have been obvious.
>
> For example, none of the asserted combinations teaches or suggests "a combination" having: (1) "a pair of confinement structures, the pair of confinement structures interacting with the computing device and adjacent at least two opposing sides of the computing device, but not more than three sides of the sides of the computing device;" (2) "each of the pair of confinement structures comprising a communication link;" or (3) "each of the communication links configured for electronic communication with the computing device." Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337

Staff Br. at 89, 92-93.

The administrative law judge finds that Nintendo has not shown by clear and convincing evidence that the combination of PhoneJoy and iPhone renders independent claim 8 of the '393 patent obvious.

As an initial matter, "structural bridge" has been construed to mean "a physical apparatus that connects other components."

Claim 8 recites, in part, "the structural bridge provides a void, the void disposed between the first end of the structural bridge and the second end of the structural bridge, the void having right, left, upper, and lower sides, each side of the void communicating with a material of the structural bridge." Nintendo contends that Dr. Cameron identified two separate voids in the PhoneJoy's bridge: (1) a series of small rectangular perforations that on the bottom side of the bridge that have left, right, upper, and lower sides that communicate with material of the structural bridge; and (2) holes in the middle section of the PhoneJoy's telescoping bridge. *See* Resps. Br. at 130-32 (citing RX-0059C (Cameron DWS) at Q/A 193). Regarding the first identified "series of small rectangular perforations", the administrative law judge finds that these indentations do not satisfy the claim limitation because Nintendo has not shown by clear and

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convincing evidence that the upper side of these indentations communicates with a material of the structural bridge.

Regarding the holes in the middle section of the PhoneJoy's telescoping bridge, Dr. Cameron's testimony regarding these newly-discovered through holes were not opined on in her expert report, and an expert's testimony is limited to the scope of her report. *See* Ground Rule 4.b. Moreover, even were this argument not waived, the administrative law judge finds that these voids are not in communication with a material of the structural bridge. Singhose Tr. 868-869.

The administrative law judge thus finds that Nintendo has not shown by clear and convincing evidence that the combination of PhoneJoy and iPhone renders claim 8 of the '393 patent obvious.

c. Claims 9-11

Nintendo argues, in part:

> PhoneJoy and iPhone disclose all limitations of dependent claims 9–11 when considering Gamevice's construction and interpretation. RX-59C, Q290–97. Gamevice only disputes claim 9b, arguing that the identified attachment support and attachment boss do not cooperate to secure the structural bridge because the components do not touch each other. CPBr.120; CX-182C, Q183–84; Tr. 870:16–22, 872:7–873:24, 874:21–876:14; RDX-600.4 (showing only disputed limitation, JX-1, claim 9). Not only is "touching" not required by claim 9b, Gamevice's argument also conflicts with its domestic industry position, so either the Razer Kishi does not practice claims 9–11 or PhoneJoy invalidates claims 9–11. Gamevice fails to show the Razer Kishi's attachment boss and attachment support touch, and therefore cooperate. CPBr.100; CX-1C, Q1231–33. Specifically, Gamevice alleges the Razer Kishi practices claim 9 even though the attachment boss does not touch the attachment support, as explained by Dr. Stern. RX-1824C, Q1046–47; RDX-3C.120 (comparing Kishi and PhoneJoy, CPX-6; RX-502C, RX-501C, RX-1715C.535). This is because the attachment boss is below and behind the structural bridge, as admitted by Dr. Singhose. Tr. 361:7–16, 362:3–8; CDX-1C.235 (CPX-6). Instead, Dr. Singhose testified that fins on the structural bridge (not the attachment boss) contact the attachment support on the Razer Kishi. Tr. 356:25–357:16 (attachment support strips on the printed circuit board line up with

fins), 359:23–360:1 (fins are on the bridge), 361:13–21 (attachment boss is below the identified fins). Under Gamevice's position, if the Razer Kishi practices claim 9b even though the attachment support and attachment boss do not touch, then the PhoneJoy and iPhone practice 9b.

Dr. Cameron explained how the PhoneJoy's attachment support and attachment boss cooperate to secure the structural bridge, because when assembled, the attachment support and attachment boss prevent the structural bridge from moving up and down, only allowing the bridge to move horizontally and maintain a level path during adjustment. RX-59C, Q292–95. Dr. Singhose admitted that when PhoneJoy is assembled, the structural bridge is between the attachment support and attachment boss. Tr. 878:2–879:6; RDX-610 (showing bridge over attachment boss, RPX-88). Dr. Cameron offered more explanation about operation of the PhoneJoy for this limitation than Dr. Singhose offered for the Razer Kishi. CX-1C, Q1231–33; RX-59C, Q292–95.

Gamevice does not contest that PhoneJoy in view of iPhone discloses the remaining limitations of claims 9–11. CPBr.120; Tr. 879:12–15; RPBr.151–52. Claim 9pre: PhoneJoy discloses a tensioning mechanism and positioning guide in the bottom cover of its left control module. RX-59C, Q292; RX-502C; RX-501C. Claim 9a: PhoneJoy discloses fins (attachment boss) in its control module that communicates with the bottom of the structural bridge as it moves. RX-59C, Q292–95; RX-502C. The fins are only included in the space where the structural bridge retracts, touch the structural bridge and cause it to maintain a level horizontal path. RX-59C, Q295. Claim 9b: PhoneJoy discloses a red plastic covering of the PCB that cooperates with the attachment boss to secure the structural bridge from moving vertically. RX-59C, Q292–95; RX-502C. Claim 9c: PhoneJoy discloses a series of springs that communicate with bosses of each attachment stay and provide tension when the bridge expands. RX-59C, Q292–95; RX-502C; RX-1651; RDX-11 (showing biasing spring operation, RX-59C, Q272, 300; RPX-4). Claim 10a: PhoneJoy discloses a groove (guide aperture) within the attachment stay that maintains alignment of the structural bridge when it moves. RX-59C, Q292–95; RX-502C; RX-1651. Claim 10b: PhoneJoy discloses that the grooves in the structural bridge interact with the position guide of the control module to maintain alignment of the structural bridge and control modules when the bridge moves. RX-59C, Q292–95; RX-502C; RX-501C; RX-1651. Claim 11: PhoneJoy has videogame control modules with buttons that pass signals to iPhone to control images on iPhone's display screen. RX-59C, Q296–97; RX-492C; RX-919; RX-878..

Resps. Br. at 132-34 (footnote omitted).

Gamevice argues, in part:

The evidence showed that claims 9-11 are valid over the PhoneJoy combination. *See* CX-0182C, Singhose Rebuttal WS Q/A 183. Claims 9-11

depend from claim 8, and thus, the PhoneJoy combination fails to render these claims obvious for the same reasons provided above for claim 8.

The PhoneJoy combination fails to disclose the "attachment boss" and "attachment support" limitations because they do not cooperate with each other to secure the structural bridge, as the claim requires. *See id.* at Q/A 184. The evidence showed that the components Nintendo identified as the "attachment boss" are fins that reinforce the control module and do not cooperate, whether directly or indirectly, with the attachment support. *See* Singhose Tr. 873:8-21, 877:21-879:11. Because Nintendo's purported "attachment boss" and "attachment support" do not cooperate, they also fail to meet the limitation "the attachment support in cooperation with the attachment boss secures the structural bridge" in claim 9. *See id*. Because the PhoneJoy combination fails to render claim 9 obvious, it also fails to render dependent claims 10-11 obvious.

Compl. Br. at 123.

The Staff argues, in part:

The Apple iPhone 5 ("iPhone") (RPX-0033; RPX-0035) is a smart phone device that was publicly available prior to February 2, 2015, and thus qualifies as prior art under 35 U.S.C. § 102(a)(1). *See* Resps. P.H. Br. at 141; RX-0059C (Cameron WS) at Q/A 168-173; JX-0013 (Bateman Decl.). Nintendo relies upon the iPhone for use as a computing device in combination with other prior art. *Id.*

* * *

PhoneJoy (RPX-0014; RPX-0013; RPX-0004; RPX-0015; RPX-0016; RPX-0017; RPX-0073; RPX-0087; RPX-0088; RPX-0089) is a game controller for iPhones and Android devices that was designed to removably clamp to a phone using tension from a spring-loaded bridge. Resps. P.H. Br. at 148. PhoneJoy was publicly available prior to February 2, 2015 and thus qualifies as prior art under 35 U.S.C. § 102(a)(1). RX-0059C (Cameron WS) at Q/A 248-66; JX-0036C (Schroeder Dep. Tr.). However, PhoneJoy fails to disclose various limitations of the asserted claims of the '393 patent. *See* Compl. P.H. Br. at 117-122. For example, PhoneJoy fails to teach the use of confinement structures having communication links, a rigid structural bridge, and a passageway. *Id.* (Singhose testimony cited therein).

* * *

To the extent that Respondents contend that certain combinations of references and/or knowledge common to one of ordinary skill in the art render one or more of the asserted claims obvious, Prof. Singhose testified that the asserted claims are not rendered obvious by the combinations relied upon by Respondents. Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337.

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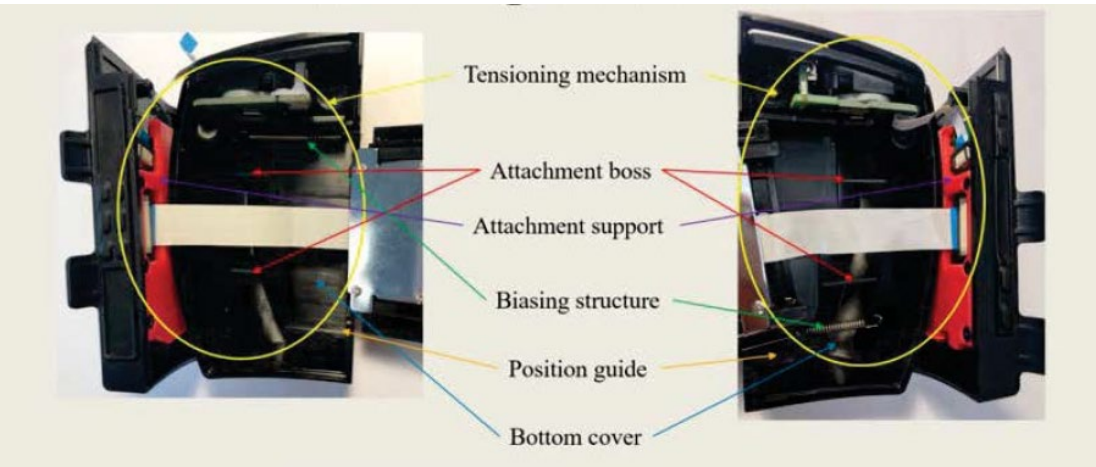
> Accordingly, Nintendo has failed to show by clear and convincing evidence that the asserted combinations would have been obvious.
>
> For example, none of the asserted combinations teaches or suggests "a combination" having: (1) "a pair of confinement structures, the pair of confinement structures interacting with the computing device and adjacent at least two opposing sides of the computing device, but not more than three sides of the sides of the computing device;" (2) "each of the pair of confinement structures comprising a communication link;" or (3) "each of the communication links configured for electronic communication with the computing device." Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337

Staff Br. at 89, 92-93.

Claims 9-11 depend on claim 8. As discussed above, PhoneJoy in view of iPhone fails to render obvious all limitations of independent claim 8.

Regarding claim 9, Gamevice argues that the PhoneJoy combination fails to disclose the "attachment boss" and "attachment support" limitations because they do not cooperate with each other to secure the structural bridge. *See* Compl. Br. at 123. As an initial matter, no party sought to construe "attachment boss" or "attachment support." *See* JX-0014.

Claim 9 recites, "an attachment support cooperating with the attachment boss, the attachment support in cooperation with the attachment boss secures the structural bridge, the structural bridge disposed between the attachment boss and the attachment support." Dr. Cameron identified the attachment support in the PhoneJoy in the modified RX-0502C and RX-0501C, reproduced below.



RX-0502C and RX-0501C (as modified by Dr. Cameron)

As shown in the modified RX-0502C and RX-0501C, PhoneJoy's attachment support and attachment boss cooperate to secure the structural bridge, because when assembled, the attachment support and attachment boss prevent the structural bridge from moving up and down, only allowing the bridge to move horizontally and maintain a level path during adjustment. *See* RX-0059C (Cameron DWS) at Q/A 292-95. Nintendo has thus shown by clear and convincing evidence that the PhoneJoy combination renders this limitation of claim 9 obvious.

However, as Nintendo has not shown by clear and convincing evidence that the PhoneJoy combination renders independent claim 8 obvious, the administrative law judge finds that Nintendo has not shown by clear and convincing evidence that the combination of PhoneJoy and iPhone renders claim 9 of the '393 patent obvious.

Claim 10 depends upon claim 9. As Nintendo has not shown that claim 9 is obvious, Nintendo has also failed to show that claim 10 is obvious. However, Nintendo has shown that the attachment stay comprises a guide aperture interacting with the position guide, and that the interaction of the guide aperture with the position guide maintains alignment between the structural bridge and the second of the pair of electronic game control modules. PhoneJoy

discloses a groove (guide aperture) within the attachment stay that maintains alignment of the structural bridge when it moves, and the grooves in the structural bridge interact with the position guide of the control module to maintain alignment of the structural bridge and control modules when the bridge moves. *See* RX-0059C (Cameron DWS) at Q/A 292-95; RX-502C; RX-501C; RX-1651.

Claim 11 depends upon claim 9. As Nintendo has not shown that claim 9 is obvious, Nintendo has also failed to show that claim 11 is obvious. However, Nintendo has shown that at least one of the pair of electronic game control modules is a video game control module, and that the video game control module passes signals to the computing device, the signals control images displayed on an electronic display screen of the computing device. PhoneJoy has videogame control modules with buttons that pass signals to iPhone to control images on iPhone's display screen. *See* RX-0059C (Cameron DWS) at Q/A 296-97; RX-492C; RX-0919; RX-0878.

The administrative law judge thus finds that Nintendo has not shown by clear and convincing evidence that the combination of PhoneJoy and iPhone renders claims 9-11 of the '393 patent obvious.

d. Claim 12

Nintendo argues, in part:

> PhoneJoy and iPhone disclose all limitations of independent claim 12 when considering Gamevice's construction and interpretation. RX-59C, Q300–2; RX-59C.A, Q300. Gamevice only disputes one element: that PhoneJoy fails to disclose an interaction of the spring member of the restraint with the boss of the retention mechanism that couples the structural bridge to a control module (claim 12h), allegedly because they are only involved in biasing the primary sections of PhoneJoy's bridge. CPBr.120; CX-182C, Q188–89; Tr. 884:22–885:5, RDX-600.5 (showing disputed limitation, JX-1, claim 12). Gamevice's argument conflicts with its domestic industry analysis, so either the DI products do not practice claims 19–

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22 or PhoneJoy invalidates claim 12.

As an initial matter, Dr. Singhose and Gamevice interpret coupling as secure coupling, which improperly adds a limitation to claim 12. Tr. 914:8–12. Dr. Cameron explained that PhoneJoy's structural bridge contains protrusions with a notch (retention mechanism with boss) that interacts with the spring of PhoneJoy's restraint to couple the bridge to the control module. RX-59C, Q302; RX-493C; RX-494C. To determine whether the identified spring members and boss couple the bridge to the control module, Dr. Singhose removed the springs and tested whether the bridge could be removed from the control module. Dr. Singhose argues that because PhoneJoy's bridge does not entirely pull out of the control module when the springs are removed, the springs do not couple the control modules to the structural bridge, and some other functionality is responsible for coupling. Tr. 885:13–886:6. First, the screws Dr. Singhose points to as coupling the bridge and control module only attach the metal plate to the plastic portion of the bridge—they serve no function in coupling the bridge to the control modules. Tr. 886:11–22; CDX-3C.11 (RPX-14); RDX-1.53 (annotated images RX-502C; RX-501C; RX-1651); RX-502C.

Second, Gamevice's argument conflicts with its position on the domestic industry products. Dr. Singhose identified similar springs as part of the functionality that restrained/secured the bridge to a control module for the DI products alleged to practice claims 19–22. Dr. Singhose testified that when these springs are removed in the DI products, the structural bridge was still secured or restrained to the control module. Applying the same test to the DI products that was applied to PhoneJoy here, none of the DI products would practice claims 19–22.

Claim 19f recites a retention mechanism that secures the structural bridge to a control module, and Claim 21f similarly recites an interaction of the fastening latch with the retention member that restrains the structural bridge to a control module. JX-1.55. For claim 19, Dr. Singhose identified a retention mechanism with a spring in the DI products. *See, e.g.*, CX-1C, Q1314–15, CDX-1C.258. For claim 21, the Dr. Singhose identified springs as part of the retention member. *See, e.g.*, CX-1C, Q1356, CDX-1C.269 (CPX-6). At the hearing, Dr. Singhose testified that if these springs are removed in the DI products, other functionality acts to restrain or secure the control module to the structural bridge. Tr. 355:13-23. Dr. Stern also confirmed this by removing similar springs in the Gamevice for iPhone and found the bridge would similarly not pull out of the control modules. RX-1824C, Q861–62; RDX-13 (Gamevice for iPhone with springs removed, RX-1824C, Q862; RPX-127).

Dr. Singhose admits that the retention mechanism of claim 19 or the fastening latch and retention member of claim 21 in the DI products are not the only components that secure or restrain the bridge to the control modules. *See, e.g.*, CX-1C, Q1121, 1318. Gamevice does not dispute that the PhoneJoy's restraint and

retention mechanism connect the bridge and control modules. CPBr.120. Under Gamevice's domestic industry analysis, PhoneJoy's restraint and retention mechanism are similarly one component that couple the bridge to the control modules, and therefore, meet this limitation. Under Gamevice's invalidity analysis, the springs in the DI products that Gamevice relies on for securing and restraining in claims 19 and 21, do not meet those limitations because they are admittedly not the only components performing that function. Therefore, either PhoneJoy invalidates claim 12 or the DI products do not practice claims 19–22.

Gamevice does not contest that PhoneJoy and iPhone disclose the remaining limitations of claim 12. CPBr.120; CX-182C, Q186–89; RPBr.152–53. Claim 12pre: PhoneJoy, used with iPhone, is a combination. RX-59C, Q274–75. Claim 12a: PhoneJoy discloses game control modules. RX-59C, Q285, 302; RX-544C. Claim 12b: PhoneJoy discloses that each control module includes buttons, joysticks, and a d-pad. RX-59C, Q285, 302; RX544C. Claim 12c: PhoneJoy's control modules contain springs that are connected to the control module on one side (restraint with spring member). RX-59C, Q302; RDX-11 (showing spring operation, RX-59C, Q272, 300; RPX-4); RX-502C; RX-501C. Claim 12d: PhoneJoy's structural bridge is interposed between its control modules. RX-59C, Q281, 302; RX-493C. Claim 12e, f: PhoneJoy's structural bridge has sides that are partially within, so next to and touching, the control modules. RX-59C, Q281, 302; RX-493C. Claim 12g: PhoneJoy's structural bridge contains protrusions with a notch (retention mechanism with boss), which interacts with PhoneJoy's spring of its restraint to couple the bridge to the control module (claim 12h). RX-59C, Q302; RX-493C; RX-494C.

Resps. Br. at 134-37.

Gamevice argues, in part:

The evidence showed that claim 12 is valid over the PhoneJoy combination. *See* CX-0182C at Q/A 186-87. The PhoneJoy combination fails to disclose "restraint" and "retention mechanism" limitations. *See id*. The spring and hook that Nintendo identified for this limitation do not couple the structural bridge to a control module because they are only involved in biasing the primary sections of PhoneJoy's telescoping bridge, as explained in Kessler. *See* CX-0182C at Q/A 188-89. Instead, the "coupling" function is completely carried out by the rails located on the bottom covers of the PhoneJoy's control modules and the clasping of the top and bottom covers of the control modules using screws. *See* Singhose Tr. 911:20-913:16. For the same reasons, Kessler fails to anticipate claim 12.

Nintendo will argue that Gamevice waived the opportunity to respond to Nintendo's anticipation argument based on Kessler. This is false. Gamevice clearly stated in its pre-hearing brief that claim 12 is valid over the PhoneJoy because "[t]he spring and hook that Nintendo identified for this limitation do not couple the structural bridge to a control module because they are only involved in

> biasing the primary sections of PhoneJoy's telescoping bridge, **as explained in Kessler."** Gamevice's PreHB at 120 (citations omitted) (emphasis added). That this argument appears in the PhoneJoy section rather than the Kessler section is irrelevant because the substance of the argument was preserved. Moreover, the PhoneJoy and Kessler have overlapping teachings—which Nintendo does not dispute—because the drawings in Kessler show controllers conspicuously labeled as the "PhoneJoy" (*see* Kessler at Figs. 1-2, 9-11). Therefore, Nintendo was on notice of Gamevice's position on this issue based on Gamevice's arguments for the PhoneJoy. Furthermore, the issue was never "waived" because the Staff expressly addressed this issue in its pre-hearing brief, arguing that Kessler fails to anticipate claim 12 for the same reasons explained in Gamevice's pre-hearing brief. *See* SPreHB at 84. Therefore, Nintendo's "waiver" argument with respect to claim 12 in view of Kessler should be rejected.

Compl. Br. at 124-25.

The Staff argues, in part:

> The Apple iPhone 5 ("iPhone") (RPX-0033; RPX-0035) is a smart phone device that was publicly available prior to February 2, 2015, and thus qualifies as prior art under 35 U.S.C. § 102(a)(1). *See* Resps. P.H. Br. at 141; RX-0059C (Cameron WS) at Q/A 168-173; JX-0013 (Bateman Decl.). Nintendo relies upon the iPhone for use as a computing device in combination with other prior art. *Id.*
>
> * * *
>
> PhoneJoy (RPX-0014; RPX-0013; RPX-0004; RPX-0015; RPX-0016; RPX-0017; RPX-0073; RPX-0087; RPX-0088; RPX-0089) is a game controller for iPhones and Android devices that was designed to removably clamp to a phone using tension from a spring-loaded bridge. Resps. P.H. Br. at 148. PhoneJoy was publicly available prior to February 2, 2015 and thus qualifies as prior art under 35 U.S.C. § 102(a)(1). RX-0059C (Cameron WS) at Q/A 248-66; JX-0036C (Schroeder Dep. Tr.). However, PhoneJoy fails to disclose various limitations of the asserted claims of the '393 patent. *See* Compl. P.H. Br. at 117-122. For example, PhoneJoy fails to teach the use of confinement structures having communication links, a rigid structural bridge, and a passageway. *Id.* (Singhose testimony cited therein).
>
> * * *
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> To the extent that Respondents contend that certain combinations of references and/or knowledge common to one of ordinary skill in the art render one or more of the asserted claims obvious, Prof. Singhose testified that the asserted claims are not rendered obvious by the combinations relied upon by Respondents. Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337. Accordingly, Nintendo has failed to show by clear and convincing evidence that

the asserted combinations would have been obvious.

> For example, none of the asserted combinations teaches or suggests "a combination" having: (1) "a pair of confinement structures, the pair of confinement structures interacting with the computing device and adjacent at least two opposing sides of the computing device, but not more than three sides of the sides of the computing device;" (2) "each of the pair of confinement structures comprising a communication link;" or (3) "each of the communication links configured for electronic communication with the computing device." Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337

Staff Br. at 89, 92-93.

The administrative law judge finds that Nintendo has not shown by clear and convincing evidence that the combination of PhoneJoy and iPhone renders independent claim 12 of the '393 patent obvious.

Regarding claim 12, Gamevice argues that the PhoneJoy combination fails to disclose the "restraint" and "retention mechanism" limitations. Compl. Br. at 124-25. As an initial matter, no party sought to construe "restraint," *see* JX-0014, and the administrative law judge has determined that the term "retention mechanism" is subject to § 112(f), and the relevant function is "securing the structural bridge to the control modules." Moreover, the corresponding structures are: (1) the mechanical arrangement, as shown in Figure 14, using a confinement boss 262 having a fastening detent 264 that interacts with a retention member 266 that is responsive to a catch 268 to secure the structural bridge 258 to the pair of control modules 252 (JX-0001 ('393 patent) at Fig. 14; col. 8, lns. 38-49); (2) the mechanical arrangement, as shown in Figures 27 and 29, using a boss 430 interacting with an adjustment structure 432 to adaptively secure the control module 402 to a structural bridge 422 (JX-0001 ('393 patent) at Figs. 27 & 29, col. 11, ln. 58 – col. 12, ln. 39); and (3) equivalents thereof.

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Nintendo only performed an analysis of whether claim 12 is invalid when construed according to Gamevice's construction. *See* Resps. Br. at 134-37.

The administrative law judge thus finds that Nintendo has not shown by clear and convincing evidence that the combination of PhoneJoy and iPhone renders claim 12 of the '393 patent obvious.

e. Claims 17-18

Nintendo argues, in part:

> PhoneJoy and iPhone disclose all limitations of claims 16–18 when considering Gamevice's construction and interpretations. RX-59C, Q310–14; RPBr.153–54. Gamevice does not contest that PhoneJoy and iPhone disclose all limitations of claim 16. CPBr.120; CX-182C, Q190. Claim 16pre: PhoneJoy, used with iPhone, is a combination. RX-59C, Q274–75. Claim 16a: PhoneJoy discloses control modules, confinement structures, and a structural bridge. PhoneJoy's control modules contain springs (retention mechanisms) that secure the control modules to the structural bridge. RX-59C, Q277, 281, 285, 312, 317; RX-502C; RX-501C. Claim 16b: iPhone provides a CPU and a plurality of sides. RX-59C, Q185, 312; RX-871. Claim 16c: iPhone discloses that each of its sides cooperate with the display screen. RX-59C, Q185, 312; RX-871. Claim 16d: PhoneJoy discloses control modules that control movement of a virtual object displayed on iPhone. RX-59C, Q297, 308, 312; RX-919. Claim 16e: The CPU of iPhone provides an electronic game. RX-59C, Q297, 312. Claim 16f: PhoneJoy's control modules are accommodated by the controller. RX-59C, Q285, 312.
>
> Gamevice only contests that PhoneJoy and iPhone do not render claims 17–18 obvious for the same reasons as claim 1. CPBr.120–21; CX-182C, Q190–91. For the reasons discussed above for claim 1 PhoneJoy and iPhone disclose all limitations that Gamevice disputes, as well as all remaining undisputed limitations of claim 1 and limitations of dependent claims 17 and 18. RX-59C, Q269–85, 303–4, 313–14. For claim 17, PhoneJoy's confinement structures are in pressing contact with the top and bottom of iPhone. RX-59C, Q277, 313; RX-492C. For claim 18, PhoneJoy's control modules include buttons, joysticks, and a d-pad that are adjacent to the top and bottom sides of iPhone and control movement of a virtual object on iPhone's display screen. RX-59C, Q285, 297, 314; RX-919. .

Resps. Br. at 137-38.

Gamevice argues, in part:

> The evidence showed that claim 17 is valid over the PhoneJoy combination.

See CX-0182C, Singhose Rebuttal WS Q/A 190. Many of the limitations in claim 17 overlap with the limitations in claim 1, such as "confinement structures," "communication links," "rigid structural bridge," and "passageway." *See id*. Therefore, the Moga combination fails to render claim 17 obvious for the same reasons explained above for claim 1. *See id*.

Claim 18 depends from claim 17, and therefore, the PhoneJoy combination fails to render claim 18 for the same reasons it cannot render claim 17 obvious. *See id*. Claim 18 further recites "each electronic game control module in electronic communication with the communication link of its corresponding confinement structure," and the PhoneJoy combination fails to disclose the "communication link of its corresponding confinement structure" for the reasons explained above in connection with claim 1. *See id*.

Compl. Br. at 125.

The Staff argues, in part:

The Apple iPhone 5 ("iPhone") (RPX-0033; RPX-0035) is a smart phone device that was publicly available prior to February 2, 2015, and thus qualifies as prior art under 35 U.S.C. § 102(a)(1). *See* Resps. P.H. Br. at 141; RX-0059C (Cameron WS) at Q/A 168-173; JX-0013 (Bateman Decl.). Nintendo relies upon the iPhone for use as a computing device in combination with other prior art. *Id.*

* * *

PhoneJoy (RPX-0014; RPX-0013; RPX-0004; RPX-0015; RPX-0016; RPX-0017; RPX-0073; RPX-0087; RPX-0088; RPX-0089) is a game controller for iPhones and Android devices that was designed to removably clamp to a phone using tension from a spring-loaded bridge. Resps. P.H. Br. at 148. PhoneJoy was publicly available prior to February 2, 2015 and thus qualifies as prior art under 35 U.S.C. § 102(a)(1). RX-0059C (Cameron WS) at Q/A 248-66; JX-0036C (Schroeder Dep. Tr.). However, PhoneJoy fails to disclose various limitations of the asserted claims of the '393 patent. *See* Compl. P.H. Br. at 117-122. For example, PhoneJoy fails to teach the use of confinement structures having communication links, a rigid structural bridge, and a passageway. *Id.* (Singhose testimony cited therein).

* * *

To the extent that Respondents contend that certain combinations of references and/or knowledge common to one of ordinary skill in the art render one or more of the asserted claims obvious, Prof. Singhose testified that the asserted claims are not rendered obvious by the combinations relied upon by Respondents. Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337. Accordingly, Nintendo has failed to show by clear and convincing evidence that

the asserted combinations would have been obvious.

> For example, none of the asserted combinations teaches or suggests "a combination" having: (1) "a pair of confinement structures, the pair of confinement structures interacting with the computing device and adjacent at least two opposing sides of the computing device, but not more than three sides of the sides of the computing device;" (2) "each of the pair of confinement structures comprising a communication link;" or (3) "each of the communication links configured for electronic communication with the computing device." Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337

Staff Br. at 89, 92-93.

The administrative law judge finds that Nintendo has not shown by clear and convincing evidence that the combination of PhoneJoy and iPhone renders claims 17 or 18 of the '393 patent obvious.

As noted above, the portion of the PCB where the ribbon cable ends is not "comprised" in any of the identified confinement structures. Hence, the PhoneJoy combination fails to disclose "each of the pair of confinement structures comprising a communication link." *See* CX-0182C (Singhose RWS) at Q/A 166.

Moreover, the administrative law judge finds that Nintendo has not shown by clear and convincing evidence that the combination of PhoneJoy and iPhone discloses the "passageway between the pair of confinement structures" because this would require that the confinement structure not be "separate and distinct" from the control module. Hence, the administrative law judge finds that the PhoneJoy combination fails to disclose the "passageway" limitation.

The administrative law judge thus finds that Nintendo has not shown by clear and convincing evidence that the combination of PhoneJoy and iPhone renders claims 17 or 18 of the '393 patent obvious.

f. Claims 19-20

Nintendo argues, in part:

PhoneJoy and iPhone disclose all limitations of dependent claims 19–20 when considering Gamevice's construction and interpretation. RX-59C, Q315–18. Gamevice contests that PhoneJoy and iPhone do not disclose three elements: (1) a retention mechanism that secures PhoneJoy's structural bridge to a control module (claim 19e/f); (2) that PhoneJoy's bridge accommodates iPhone's length (claim 19f); and (3) that PhoneJoy's bridge does not contain a void (claim 19g). CPBr.121; CX-182C, Q193–98; Tr. 880:14–24; RDX-600.6 (showing disputed limitations, JX-1, claim 19). Gamevice's arguments are inconsistent with its domestic industry contentions and disregard PhoneJoy's disclosure.

First, Gamevice argues that the springs in PhoneJoy, retention mechanism, Tr. 883:11–21, do not secure PhoneJoy's bridge to its control modules because they only bias the bridge. CPBr.121; CX-182C, Q193. Dr. Singhose reached this opinion by performing the same test described above for claim 12. Tr. 881:10–23, 885:6–12. As explained above in claim 12, this conflicts with Gamevice's domestic industry analysis, where Gamevice argues that the retention mechanism of the DI products does not need to be the only components that secure the bridge to the control modules. *See, e.g.*, CX-1C, Q1121, 1318; Tr. 350:5–352:3, 355:13–23. Either PhoneJoy and iPhone meet this limitation, or the DI products do not practice this limitation.

Second, Gamevice argues that PhoneJoy's retention mechanism does not allow the structural bridge to accommodate the computing device because it is only used for switching between open and closed configurations. CPBr.121; CX-182C, Q194. But Gamevice's analysis conflicts with the disclosure of PhoneJoy. As Dr. Singhose confirmed, the retention mechanism identified by Dr. Cameron allows the first bridge section to move in and out of the control module under tension. Tr. 884:16–21. Dr. Singhose also confirmed that when the bridge is expanded, PhoneJoy accommodates the length of iPhone. Tr. 882:5–15; RDX-611 (showing expanded bridge, RPX-89). PhoneJoy's retention mechanism, therefore, allows the sections of the bridge to move in and out, which allows iPhone to be accommodated by the expanded length of PhoneJoy's bridge and satisfies claim 19. Singhose Tr. 882:5–15, 884:16–21.

Third, Gamevice argues that PhoneJoy does not disclose a void in the midsection of the bridge. As discussed above, PhoneJoy discloses a series of voids and through holes, some in the midsection of PhoneJoy's bridge, which communicate with material of the bridge on four sides. Singhose Tr. 865:4–868:23; RDX-604–8 (voids, RPX-16); RX-59C, Q317.

Gamevice does not dispute that PhoneJoy and iPhone disclose each remaining limitation of claim 19. CPBr.121; RPBr.154. Claim 19pre: iPhone's length is greater than its width. RX-59C, Q185, 281, 283, 285, 317. Claim 19a: PhoneJoy is in electronic communication with iPhone's CPU. *Id.* Claim 19b: PhoneJoy's control modules are adjacent to and confine the computing device on two opposing sides. *Id.* Claim 19c: PhoneJoy's control modules are adapt to and

> in pressing contact with the opposing end points of iPhone. *Id.* Claim 19d: PhoneJoy's structural bridge secures the pair of control modules. *Id.* Gamevice does not raise any independent arguments rebutting that PhoneJoy and iPhone disclose all limitations of claim 20. CPBr.121; CX-182C, Q197–98. For the reasons discussed above for claim 19 and claim 1, PhoneJoy and iPhone disclose each undisputed limitation of claim 20. RX-59C, Q315–18. For claim 20, PhoneJoy's control modules are adjacent the top and bottom sides, and are in pressing contact with iPhone. RX-59C, Q285, 317; RX-492C.

Resps. Br. at 138-40.

Gamevice argues, in part:

> The evidence showed that claim 19 is valid over the PhoneJoy combination. First, the PhoneJoy combination fails to disclose the "retention mechanism" limitation. *See* CX-0182C, Singhose Rebuttal WS Q/A 193. Nintendo appears to argue that the springs and the hooks that it identified as the restraint and retention mechanism in claim 12 also satisfy the retention mechanism in claim 19. *See id*. But those components are only involved in biasing the primary sections of PhoneJoy's telescoping bridge to switch between PhoneJoy's open and closed configurations, not to secure the bridge to a control module as the claim requires. *See id*. Also, because those components are only used for switching between open and closed configurations, they do not allow PhoneJoy's structural bridge to accommodate the length of an iPhone. *See id.* at Q/A 194; Singhose Tr. 884:16-21.
>
> Second, the PhoneJoy combination fails to disclose the "void" limitation for the same reasons explained above for claim 8. *See* CX-0182C at Q/A 195. As explained above for claim 8, Nintendo should be barred from arguing that the holes in the middle section of the telescoping bridge satisfy the "void" limitation. Claim 19 further requires the void to be in the mid-section, but the indentations identified by Nintendo for this limitation are not in the mid-section of PhoneJoy's bridge. *See id.* at Q/A 195-96. Claim 20 depends from claim 19, so the PhoneJoy combination fails to render claim 20 obvious for the same reasons it cannot render claim 19 obvious, as explained above. *See id.* at Q/A 197-98.

Compl. Br. at 125-26.

The Staff argues, in part:

> The Apple iPhone 5 ("iPhone") (RPX-0033; RPX-0035) is a smart phone device that was publicly available prior to February 2, 2015, and thus qualifies as prior art under 35 U.S.C. § 102(a)(1). *See* Resps. P.H. Br. at 141; RX-0059C (Cameron WS) at Q/A 168-173; JX-0013 (Bateman Decl.). Nintendo relies upon the iPhone for use as a computing device in combination with other prior art. *Id.*

* * *

> PhoneJoy (RPX-0014; RPX-0013; RPX-0004; RPX-0015; RPX-0016; RPX-0017; RPX-0073; RPX-0087; RPX-0088; RPX-0089) is a game controller for iPhones and Android devices that was designed to removably clamp to a phone using tension from a spring-loaded bridge. Resps. P.H. Br. at 148. PhoneJoy was publicly available prior to February 2, 2015 and thus qualifies as prior art under 35 U.S.C. § 102(a)(1). RX-0059C (Cameron WS) at Q/A 248-66; JX-0036C (Schroeder Dep. Tr.). However, PhoneJoy fails to disclose various limitations of the asserted claims of the '393 patent. *See* Compl. P.H. Br. at 117-122. For example, PhoneJoy fails to teach the use of confinement structures having communication links, a rigid structural bridge, and a passageway. *Id.* (Singhose testimony cited therein).

* * *

> To the extent that Respondents contend that certain combinations of references and/or knowledge common to one of ordinary skill in the art render one or more of the asserted claims obvious, Prof. Singhose testified that the asserted claims are not rendered obvious by the combinations relied upon by Respondents. Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337. Accordingly, Nintendo has failed to show by clear and convincing evidence that the asserted combinations would have been obvious.
>
> For example, none of the asserted combinations teaches or suggests "a combination" having: (1) "a pair of confinement structures, the pair of confinement structures interacting with the computing device and adjacent at least two opposing sides of the computing device, but not more than three sides of the sides of the computing device;" (2) "each of the pair of confinement structures comprising a communication link;" or (3) "each of the communication links configured for electronic communication with the computing device." Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337

Staff Br. at 89, 92-93.

The administrative law judge finds that Nintendo has not shown by clear and convincing evidence that the combination of PhoneJoy and iPhone renders claims 19 or 20 of the '393 patent obvious.

Regarding claim 19, Gamevice argues that the PhoneJoy combination fails to disclose the "retention mechanism" limitation. Compl. Br. at 125. As an initial matter, the administrative law judge has determined that the term "retention mechanism" is subject to § 112(f), and the

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relevant function is "securing the structural bridge to the control modules." Furthermore, the corresponding structures are: (1) the mechanical arrangement, as shown in Figure 14, using a confinement boss 262 having a fastening detent 264 that interacts with a retention member 266 that is responsive to a catch 268 to secure the structural bridge 258 to the pair of control modules 252 (JX-0001 ('393 patent) at Fig. 14; col. 8, lns. 38-49); (2) the mechanical arrangement, as shown in Figures 27 and 29, using a boss 430 interacting with an adjustment structure 432 to adaptively secure the control module 402 to a structural bridge 422 (JX-0001 ('393 patent) at Figs. 27 and 29; col. 11, ln. 58 – col. 12, ln. 39); and (3) equivalents thereof.

Nintendo only performed an analysis of whether claim 19 is invalid when construed according to Gamevice's construction. *See* Resps. Br. at 138-40.

The administrative law judge thus finds that Nintendo has not shown by clear and convincing evidence that the combination of PhoneJoy and iPhone renders claims 19 or 20 of the '393 patent obvious.

g. Claims 21-22

Nintendo argues, in part:

> PhoneJoy and iPhone disclose all limitations of dependent claims 21–22 when considering Gamevice's construction and interpretation. RX-59C, Q319–22. Gamevice only contests one limitation: whether the identified fastening latch and retention member restrain PhoneJoy's structural bridge to the control module (claim 21f). CPBr.122; CX-182C, Q199–202; Tr. 879:16–21; RDX-600.12 (showing only disputed limitation, JX-1, claim 21). But Gamevice's argument conflicts with its domestic industry contentions, so either the DI products do not practice claim 21 or PhoneJoy and iPhone invalidate claim 21. To support Gamevice's argument that PhoneJoy's springs (fastening latch) and notches on the bridge (retention members) do not restrain PhoneJoy's bridge, Dr. Singhose performed the same test described above in Claim 12. Tr. 880:1–9. As explained in Claim 12, under this test, none of the DI products practice claim 21 because they admittedly have components other than the alleged fastening latch and retention member that restrain the structural bridge to the control module after the springs are removed. CX-1C, Q880; Tr. 350:5–352:3, 353:25–354:19, 355:13–23. Dr.

> Stern also confirmed this via testing of the Gamevice for iPhone. RX-1824C, Q861–62. Dr. Singhose also confirmed that nothing in the '393 patent requires the fastening latch and retention member be the only components that restrain the purported bridge to the control modules. CX-1C, Q880. Removing the inconsistency in Gamevice's argument, either PhoneJoy and iPhone invalidate claim 21 or the DI products do not practice claim 21.
>
> Gamevice does not dispute that PhoneJoy and iPhone disclose each remaining limitation of claim 21. CPBr.122. Claim 21pre: iPhone's length is greater than its width. RX-59C, Q185, 281, 285, 321. Claim 21a: PhoneJoy is in electronic communication with the CPU of iPhone. Id. Claim 21b: PhoneJoy provides control modules. *Id.* Claim 21c: PhoneJoy's control module comprises a spring (fastening latch). *Id.* Claim 21d: PhoneJoy's structural bridge is disposed between the control modules. *Id.* Claim 21e: The sides of PhoneJoy's structural bridge are in contact adjacency with the control modules. Gamevice does not raise any independent arguments rebutting that PhoneJoy and iPhone disclose all limitations of claim 22. CPBr.122; Tr. 880:10–13. For the reasons discussed above for claims 1 and 21, PhoneJoy and iPhone disclose the limitations of claim 22. RX-59C, Q185, 279, 285, 297, 322.

Resps. Br. at 140-41.

> Gamevice argues, in part:
>
> The evidence showed that claim 21 is valid over the PhoneJoy combination. *See* CX-0182C, Singhose Rebuttal WS Q/A 199. The PhoneJoy combination fails to disclose the "fastening latch" and "retention member" limitations in claim 21. *See id.* at Q/A 200-01. Nintendo identifies the springs and hooks it identified for the restraint and the retention mechanism in claim 12. *See id*. But the springs and the hooks do not "restrain[] the structural bridge to a control module" as required by claim 21 because they are only involved in switching the open and closed configuration of the PhoneJoy control modules, as explained above. *See id*.; CDX-0003C.0011. Claim 22 depends from claim 21, so the Moga combination fails to render claim 22 obvious for the same reasons it cannot render claim 21 obvious, as explained above. *See* CX-0182C at Q/A 202.

Compl. Br. at 126.

> The Staff argues, in part:
>
> The Apple iPhone 5 ("iPhone") (RPX-0033; RPX-0035) is a smart phone device that was publicly available prior to February 2, 2015, and thus qualifies as prior art under 35 U.S.C. § 102(a)(1). *See* Resps. P.H. Br. at 141; RX-0059C (Cameron WS) at Q/A 168-173; JX-0013 (Bateman Decl.). Nintendo relies upon the iPhone for use as a computing device in combination with other prior art. *Id.*

* * *

PhoneJoy (RPX-0014; RPX-0013; RPX-0004; RPX-0015; RPX-0016; RPX-0017; RPX-0073; RPX-0087; RPX-0088; RPX-0089) is a game controller for iPhones and Android devices that was designed to removably clamp to a phone using tension from a spring-loaded bridge. Resps. P.H. Br. at 148. PhoneJoy was publicly available prior to February 2, 2015 and thus qualifies as prior art under 35 U.S.C. § 102(a)(1). RX-0059C (Cameron WS) at Q/A 248-66; JX-0036C (Schroeder Dep. Tr.). However, PhoneJoy fails to disclose various limitations of the asserted claims of the '393 patent. *See* Compl. P.H. Br. at 117-122. For example, PhoneJoy fails to teach the use of confinement structures having communication links, a rigid structural bridge, and a passageway. *Id.* (Singhose testimony cited therein).

* * *

To the extent that Respondents contend that certain combinations of references and/or knowledge common to one of ordinary skill in the art render one or more of the asserted claims obvious, Prof. Singhose testified that the asserted claims are not rendered obvious by the combinations relied upon by Respondents. Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337. Accordingly, Nintendo has failed to show by clear and convincing evidence that the asserted combinations would have been obvious.

For example, none of the asserted combinations teaches or suggests "a combination" having: (1) "a pair of confinement structures, the pair of confinement structures interacting with the computing device and adjacent at least two opposing sides of the computing device, but not more than three sides of the sides of the computing device;" (2) "each of the pair of confinement structures comprising a communication link;" or (3) "each of the communication links configured for electronic communication with the computing device." Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337

Staff Br. at 89, 92-93.

The administrative law judge finds that Nintendo has not shown by clear and convincing evidence that the combination of PhoneJoy and iPhone renders claims 21 or 22 of the '393 patent obvious.

Regarding claim 21, Gamevice argues that the PhoneJoy combination fails to disclose the "fastening latch" and "retention member" limitations. Compl. Br. at 126. As an initial matter, no party argued for the construction of "fastening latch," *see* JX-0014, and the administrative law

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judge has determined that (1) the term "retention member" is subject to § 112(f); (2) the relevant function is "interacting with the fastening latch, the interaction of the fastening latch with the retention member restraining the structural bridge to a control module of the pair of control modules, and the pair of control modules to the computing device"; and (3) the corresponding structure is "a cylindrical post or column, including the recesses, depicted in Figure 14, at the interface between the confinement boss and the retention member."

Nintendo only performed an analysis of whether claim 21 is invalid when construed according to Gamevice's construction. *See* Resps. Br. at 140-41.

The administrative law judge thus finds that Nintendo has not shown by clear and convincing evidence that the combination of PhoneJoy and iPhone renders claims 21 or 22 of the '393 patent obvious.

4. Obviousness – MOGA in View of iPhone

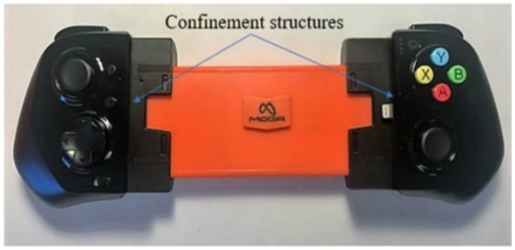
a. Claims 1-4 and 6-7

MOGA Ace Power ("MOGA") was publicly available prior to February 2, 2015, and is prior art to the '393 patent. *See* RX-0059C (Cameron WS) at Q/A 158-67; RX-0908C (receipt for sale of MOGA); RX-0897 (review of MOGA); RX-0909 (review of MOGA).

Nintendo argues, in part:

> MOGA discloses all limitations of claim 1 when considering Gamevice's construction and interpretation. RX-59C, Q174–97. Gamevice argues that MOGA in view of iPhone fails to disclose five elements: (1) claim 1c a pair of confinement structures interacting on not more than three sides of the computing device; (2) claim 1d each confinement structure comprising a communication link; (3) claim 1f a passageway; (4) claim 1k each control module being separate and distinct from each corresponding confinement structure; and (5) claim 1l each control module separate and distinct from the structural bridge. CPBr.111–14. Gamevice's arguments contradict its infringement contentions, disregard Dr. Cameron's testimony, and ignore obvious motivation of a POSA to modify MOGA. RX-59C, Q174–97.

First, Gamevice argues that MOGA does not disclose a pair of confinement structures because MOGA confines the computing device on more than three sides (claim 1c). CPBr.111–12; CX-182, Q109. Gamevice disregards Dr. Cameron's testimony that a POSA would be motivated to remove the lips of MOGA's confinement structures so that MOGA could accommodate computing devices of different widths and rendering of a modified MOGA showing its simplicity. RX-59C, Q187, 197; Tr. 683:14–685:8, 735:10–737:10; RX-486C; RDX-1.26 (showing RX-486C modified, right). Dr. Singhose agrees this would be a simple modification and would achieve the goal discussed by Dr. Cameron. CX-182C, Q111. But Gamevice disputes that a POSA would be motivated to make this modification because existing components already achieve this goal and the computing device would not be secured absent these lips. *Id.*, Q111–12. Dr. Singhose fails to identify any components that allow MOGA to achieve this goal—there are none. *Id.*, Q111; RX-59C, Q187; Cameron Tr. 681:14–682:19. Further, Gamevice ignores the fact that MOGA's confinement structures are not flat, but instead go over the top of the computing device to further secure it. CX-182C, Q112; RX-847C (showing that MOGA's confinement structure overhangs on top of the iPhone below the home button). Dr. Cameron further testified that the Lightning cable and the compressive force of MOGA would hold the computing device and that there may be a gap between the lip of MOGA and the iPhone. Tr. 680:24–682:19.



Second, Gamevice argues that MOGA does not disclose a communication link (claim 1d) because the ribbon cable is not comprised in any sides of MOGA. CPBr.112; CX-182C, Q114. Gamevice ignores the understanding of a POSA considering the '393 patent and disregard Dr. Cameron's testimony. Gamevice does not dispute that "confinement structures" is not a term of art. CPBr.112; Cameron Tr. 734:5–735:1; RX-59C, Q189. Dr. Cameron testified that what a confinement structure comprises is arbitrary and a POSA could designate part of the PCB where the ribbon cable ends as part of the confinement structure. Tr. 735:2–9; RX-59C, Q189; RX-472C. This follows the '393 patent's disclosure, which shows that the signal lands that Gamevice identifies as the communication links do not have to be on the same surface of the confinement structure that holds the computing device. JX-1.21–22. A POSA would understand that the part where the ribbon cable connects to the PCB in MOGA could also constitute part of MOGA's confinement structure. Cameron Tr. 735:2–9; RX-59C, Q138–46, 189. Gamevice does not dispute that each end of the ribbon cable in MOGA discloses the pair of communication links. CPBr.112; CX-182C, Q114; Tr. 887:9–12. Further, Dr. Cameron analyzed this limitation under Gamevice's interpretation of the Asserted Claims and Gamevice does not make any distinction between electronic and electrical communication. CPBr.112.

Third, Gamevice argues that MOGA fails to disclose control modules that

are separate and distinct from their corresponding confinement structures (claim 1k). CPBr.113; CX-182C, Q119–20. Gamevice's argument conflicts with its interpretation of separate and distinct. In the 1111 Investigation, Gamevice's expert opined that two plastic pieces molded together, such as in MOGA, are still separate and distinct. Cameron Tr. 737:15–738:23. This is consistent with Gamevice's infringement analysis here, where it argues that the rails of the Nintendo Switch are separate and distinct even though they are meant to stay connected to the console. Cameron Tr. 685:9–21. Under Gamevice's interpretation of this limitation, MOGA's confinement structures are separate and distinct from its control modules, or a POSA would be motivated to make this modification. Cameron Tr. 737:15–738:23; RX-59C, Q190; RX-59C.A, Q190.

Fourth, Gamevice argues that, in the alternative, MOGA's structural bridge is not separate and distinct from its confinement structures (claim 1l). CPBr.113; CX-182C, Q122–23. But Gamevice ignores MOGA's disclosure, showing that MOGA's bridge is separate and distinct from its confinement structures under Gamevice's interpretation because MOGA's bridge can be removed upon disassembly. RX-59C, Q192; RX-478C; RX-1642C.

Fifth, Gamevice argues that MOGA does not disclose a passageway (claim 1f) because MOGA does not disclose a pair of confinement structures. CPBr.113. As discussed above, MOGA discloses a pair of confinement structures and therefore discloses a passageway. RX-59C, Q187–89, 191–92; RX-478C. Gamevice alternatively argues that MOGA does not disclose a passageway because its communication link does not run from one confinement structure to the other. CPBr.113–14. This argument conflicts with Gamevice's infringement contentions: The FPCs in the Nintendo Switch do not run from one rail to the other, and so it does not contain a passageway under Gamevice's argument.

Gamevice does not contest that the combination of MOGA and iPhone discloses the remaining limitations of claim 1. CPBr.111–14; RPBr.142–44. Claim 1pre: MOGA, used with iPhone, is a combination. RX-59C, Q179–81; RX-470C, RX-847, RX-485C, RX-468C. Claim 1a: iPhone is electronic equipment controlled by a CPU. RX-59C, Q184–85; RX-871. Claim 1b: MOGA contains side structures that interact and hold the computing device. RX-59C, Q138, 186–87, 197; RX-486C. Claim 1e: MOGA discloses a rigid structural bridge secured to each confinement structure. RX-59C, Q189, 191–92, 197; RX-477C. Claim 1g: MOGA's passageway promotes electrical communication via the ribbon cable run between each control module's PCB. MOGA's Lightning connector communicates with iPhone. RX-59C, Q192, 194–95, 197; RX-472C. Claim 1h: MOGA discloses a pair of control modules. RX-59C, Q195, 197; RX-486C. Claim 1i: Each control module of MOGA is secured to and interacts with each confinement structure. RX-59C, Q187, 195, 197; RX-486C. Claim 1j: The PCB of each control module of MOGA is in communication with the ribbon cable. RX-59C, Q195, 197; RX-472C.

* * *

> Gamevice does not contest that MOGA and iPhone disclose claims 2–4 and 6–7, but instead relies on its arguments concerning claim 1. CPBr.114; CX-182C, Q127. MOGA and iPhone render claims 2–4 and 6–7 obvious. RX-59C, Q198–203; RPBr.144. MOGA and iPhone render claim 2 obvious because MOGA's rigid structural bridge supports iPhone's electronics. RX-59C, Q198; RX-871; RX-484C. MOGA and iPhone render claim 3 obvious because iPhone comprises a back with an internal surface and external surface that cooperates with at least two opposing sides of iPhone. RX-59C, Q185, 199; RX-871. MOGA and iPhone render claim 4 obvious because MOGA's rigid structural bridge cooperates with the back of iPhone. RX-59C, Q201; RX-484C. MOGA and iPhone render claim 6 obvious because MOGA's control modules pass signals to iPhone, where those signals control objects displayed on iPhone's display screen. RX-59C, Q185, 202. MOGA and iPhone render claim 7 obvious because iPhone contains a Murata 339S0171 Wi-Fi module supported by MOGA's bridge. RX-59C, Q203; RX-871.

Resps. Br. at 141-45.

Gamevice argues, in part:

> The evidence showed that claim 1 is valid over the Moga combination. *See id.* at Q/A 107. First, it is undisputed that the Moga combination fails to disclose "a pair of confinement structures . . . interacting with . . . not more than three sides of the sides of the computing device, each pair of the pair of confinement structures comprising a communication link, each of the communication links configured for electronic communication with the computing device." *See id.* at Q/A 108. The sides of the Moga control modules, which Nintendo identified as allegedly disclosing this limitation, interact with more than three sides (left, right, top, and bottom sides) of an iPhone. *See id.* at Q/A 109. A POSITA would not have modified the sides of the Moga to reduce the number of sides interacting with an iPhone from four to three or less because doing so would render the Moga device unable to sufficiently secure an iPhone. *See id.* at Q/A 110-12. At the hearing, Dr. Cameron admitted that the image of the Moga controller with "[c]onfinement structures confining on not more than three sides" shown in her demonstrative slide RDX-0001.26 (reproduced in Nintendo's prehearing brief on page 142) is a photoshopped image of the Moga controller and that such controller does not exist in reality. *See* Cameron Tr. 683:14-685:6.
>
> The evidence also showed that the sides of the Moga control modules do not have a communication link on each side because the flexible printed circuit in the Moga is not "comprised" in any of the sides, and the Lightning connector is provided only on one side, even if it is deemed to be a communication link. *See* CX-0182C. at Q/A 114; CDX-0003C.0005; Cameron Tr. 689:1-691:6. Nintendo argues that a POSITA would have combined the Moga with the audio jack 35 in Michael to arrive at this limitation, but the resulting combination would still fail to disclose the "communication link" limitation because the resulting combination

would have the Lightning link and the audio jack 35 on the same side of the Moga device. *See* CX-0182C at Q/A 113-15; CDX-0003C.0004. Further, Nintendo's argument that Moga's flexible printed circuit satisfies the "communication links configured for electronic communication" is inconsistent with Nintendo's non-infringement argument that the flexible printed circuits in the Nintendo Switch are not capable of electronic communication because they are "dumb" wires that only pass electrical signals. *See* RPreHB at 96; CX-0182C at Q/A 116. If Nintendo's non-infringement argument is correct, then the Moga fails to disclose this limitation, and vice versa. CX-0182C at Q/A 116. Nintendo also argues that a POSITA would combine the Moga combination with the iPega to arrive at this limitation, but the resulting combination would still fail to disclose this limitation because the iPega fails disclose this limitation as well. *See id.* at Q/A 117. The flexible printed circuit in the iPega only goes through the bridge, not the components that Nintendo identified as the "confinement structures." *See id.*; CDX-0003C.0006. Also, a POSITA would not make this combination because it would result in a Moga device with only two side structures that cannot sufficiently secure an iPhone. *See* CX-0182C at Q/A 118.

Second, the evidence showed that the Moga combination fails to disclose "each electronic game control module is a separate and distinct structure from each of their corresponding confinement structures, forming no structural portion of their corresponding confinement structures." *See id.* at Q/A 119; Cameron Tr. 686:5-22. Moga's side structures are integrated with the control modules, and therefore, they are part of and not separate and distinct from Moga's control modules. *See* CX-0182C at Q/A 119-20. A POSITA would not have modified the side structures to be "separate and distinct" from the control modules because doing so would destroy Moga's principle of operation, which depends on a semi-permanent connection between Moga's control modules and the bridge. *See id.* at Q/A 120-21.

Third, the evidence showed that the Moga combination fails to disclose "each of the pair of confinement structures are separate and distinct structures from the structural bridge, forming no structural portion of the structural bridge." *See id.* at Q/A 122-23. As explained above, the side structures of Moga's controllers interact with the top and bottom sides of an iPhone, so these portions of the side structures are part of the structural bridge under all parties' constructions. *See id.*

Fourth, as the evidence showed, the Moga combination fails to disclose the "passageway" limitation. As an initial matter, the Moga combination fails to disclose any confinement structures for the reasons explained above. Even if the side structures are assumed to be the "confinement structures" for the sake of argument, the Moga combination fails to disclose the claimed passageway because those confinement structures do not comprise any communication links. *See id.* at Q/A 124-25. The Moga combination fails to disclose other limitations in claim 1 that recite "confinement structure" and "communication link" for the same reasons. *See id.* at Q/A 126. Furthermore, the Moga combination fails to render dependent claims 2-4 and 6-7 obvious because it fails to render claim 1 obvious. *See id.* at

Q/A 127.

Compl. Br. at 114-16.

The Staff argues, in part:

> MOGA Ace Power ("MOGA") (RPX-0081; RPX-0006; PRX-0018; RPX-0001; RPX-0082) is a game controller for iPhones that was designed to removably clamp to an iPhone using a spring and lock mechanism to grip the phone. *See* Resps. P.H. Br. at 141. MOGA was publicly available prior to February 2, 2015 and thus qualifies as prior art under 35 U.S.C. § 102(a)(1). *See id.*; RX-0059C (Cameron WS) at Q/A 158-167; RX-0908C (receipt for sale of MOGA); RX-0897 (review of MOGA); RX-0909 (review of MOGA). However, MOGA fails to disclose various limitations claimed by the '393 patent. *See* Compl. P.H. Br. at 111-116. For example, MOGA fails to teach the use of confinement structures interacting with not more than three sides of the computing device, communication links, separate and distinct game control modules, separate and distinct confinement structures, and a passageway. *Id.* (Singhose testimony cited therein).
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> The Apple iPhone 5 ("iPhone") (RPX-0033; RPX-0035) is a smart phone device that was publicly available prior to February 2, 2015, and thus qualifies as prior art under 35 U.S.C. § 102(a)(1). *See* Resps. P.H. Br. at 141; RX-0059C (Cameron WS) at Q/A 168-173; JX-0013 (Bateman Decl.). Nintendo relies upon the iPhone for use as a computing device in combination with other prior art. *Id.*
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> To the extent that Respondents contend that certain combinations of references and/or knowledge common to one of ordinary skill in the art render one or more of the asserted claims obvious, Prof. Singhose testified that the asserted claims are not rendered obvious by the combinations relied upon by Respondents. Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337. Accordingly, Nintendo has failed to show by clear and convincing evidence that the asserted combinations would have been obvious.
>
> For example, none of the asserted combinations teaches or suggests "a combination" having: (1) "a pair of confinement structures, the pair of confinement structures interacting with the computing device and adjacent at least two opposing sides of the computing device, but not more than three sides of the sides of the computing device;" (2) "each of the pair of confinement structures comprising a communication link;" or (3) "each of the communication links configured for electronic communication with the computing device." Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337

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Staff Br. at 89, 92-93.

The administrative law judge finds that Nintendo has not shown by clear and convincing evidence that the combination of MOGA and iPhone renders independent claim 1 of the '393 patent obvious. For the same reasons, Nintendo has not shown by clear and convincing evidence that the combination of MOGA and iPhone renders dependent claims 2-4 and 6-7 obvious.

Regarding the limitation, "the pair of confinement structures interacting with the computing device and adjacent at least two opposing sides of the computing device, but not more than three sides of the sides of the computing device," Nintendo contends that one of ordinary skill in the that would be motivated to remove the lips of the MOGA's confinement structures so that the MOGA could accommodate computing devices of different widths. *See* Resps. Br. at 142. However, the sides of the MOGA control modules, which Nintendo identified as allegedly disclosing this limitation, interact with more than three sides (left, right, top, and bottom sides) of an iPhone. *See* CX-0182C (Singhose RWS) at Q/A 109. Moreover, one of ordinary skill in the art would not have modified the sides of the MOGA to reduce the number of sides interacting with an iPhone from four to three or less because doing so would render the MOGA device unable to sufficiently secure the iPhone. *See id.* at Q/A 110-12.

Nintendo further argues that each confinement structure comprises a communication link because one of ordinary skill in the art could designate the portion of the PCB where the ribbon cable ends as part of the confinement structure. *See* Resps. Br. at 142-43. However, the administrative law judge finds this argument unpersuasive. The flexible printed circuit in the MOGA is not "comprised" in any of the identified confinement structures. *See* CX-0182C (Singhose RWS) at Q/A 114.

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Nintendo further argues that the control modules are separate and distinct from their corresponding confinement structures, or that it would have been obvious to make this modification. *See* Resps. Br. at 143. However, as Dr. Cameron testified, "reducing the total number of parts in a product is preferable because it can lower manufacturing costs, such as through the use of part-count reduction based on one-piece structures created via injection molding." RX-0059C (Cameron DWS) at Q/A 190. The administrative law judge finds that Nintendo has not shown by clear and convincing evidence that the combination of MOGA and iPhone discloses that the control modules are separate and distinct from their corresponding confinement structures.

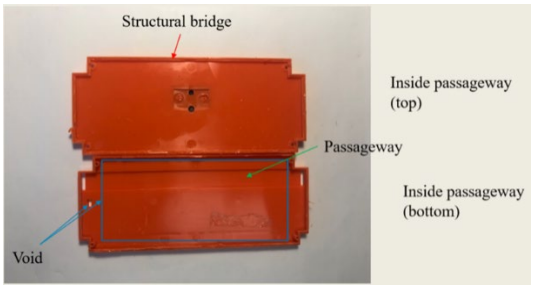
The administrative law judge thus finds that Nintendo has not shown by clear and convincing evidence that the combination of MOGA and iPhone renders claim 1 obvious, or claims 2-4 and 6-7, dependent thereupon.

b. Claim 8

Nintendo argues, in part:

> MOGA and iPhone disclose all limitations of claim 8 when considering Gamevice's construction and interpretation. RX-59C, Q204–8. Gamevice only contests one element: whether MOGA discloses a void (claim 8d). CPBr.114; CX-182C, Q129–31; Tr. 888:17–22, 889:9–890:7; RDX-600.9 (showing disputed limitation, JX-1, claim 8); RDX-613 (annotated RX-478C image of MOGA's bridge). Gamevice's argument is not supported by the '393 patent and conflicts with its domestic industry analysis. Dr. Cameron identified two separate voids in MOGA's bridge, (1) a small void in the left side of the bridge and (2) a large void comprising the empty space between the two covers of MOGA's bridge but Gamevice only addressed the first identified void. RX-59C, Q193; RDX-1.28 (annotated images of RX-468C; RX-478C; RX-477C); Tr. 739:3–13; CX-182C, Q129–31; CPBr.114. Gamevice, therefore, waived any argument that the second void identified by Dr. Cameron (the large rectangular void inside of MOGA's bridge) fails to meet claim 8d. CPBr.114; Tr. 692:23–693:5. Gamevice fails to dispute that it would be obvious to add a through hole to MOGA's bridge, waiving this argument. CPBr.114. Gamevice has, therefore, waived its argument that MOGA discloses a void, and that it would be obvious to add regardless.

Gamevice contends that the first identified void in MOGA's bridge—that is, small void in the left side of the bottom cover of MOGA's bridge—does not disclose claim 8d because it does not go through both the top and bottom cover of MOGA's bridge. CPBr.114; CX-182C, Q129–30. But nothing in the '393 patent states that a void must be a through hole. Cameron Tr. 742:21–743:2. The plain meaning of "void" is an "empty space," RX-1541, and the specification does not say that the empty space has to have any particular configuration. Dr. Singhose is making up this requirement. Moreover, Dr. Singhose admits that the void limitation of claim 8 is satisfied "if you start in the void, move left, right, up, and down and run into the bridge." Tr. 857:4–8. Both this void, as well as the second void (i.e., the rectangular void on the inside of the bridge resulting from closing the top piece over the bottom), identified by Dr. Cameron meet this test. RX-59C, Q193; RX-59C.A, Q193; RDX-1.28 (annotated image RX-478C, right). Dr. Singhose also admitted that the first void identified by Dr. Cameron satisfies this test. Tr. 889:18–890:21; RDX-613 (annotated image of RX-478C). But Gamevice is ignoring Dr. Singhose's test for the void and improperly importing a limitation into claim 8. Gamevice's argument that a through hole is required also conflicts with its domestic industry analysis of the Razer Kishi, which has cover plates on the bridge that cover the alleged void. CPBr.100; Cameron Tr. 743:3–18. Under Gamevice's interpretation of claim 8 both structures identified by Dr. Cameron are voids.



If a through hole is required, Dr. Cameron testifies, and Gamevice does not dispute, that it would be obvious to add a through hole to MOGA's bridge. RX-59C, Q193, 208; Tr. 691:18–692:4, 739:20–741:3. Dr. Singhose acknowledged that a plastic part with a hole was a known alternative to a solid plastic piece. Tr. 852:9–12. Dr. Cameron explained that a POSA would recognize a large through hole could be included because MOGA's bridge is empty except the passageway in the top portion. Tr. 739:20–741:3. A POSA would be motivated to add a through hole for heat dissipation and to allow access to functionalities on iPhone's back. *Id.*; RX-59C, Q137, 193, 298; RX-478C. Gamevice does not dispute this. CPBr.114; CX-182C, Q129–31.

Gamevice does not contest that MOGA in view of iPhone discloses the remaining limitations of claim 8. CPBr.114; RPBr.144–45. Claim 8pre: MOGA, used with iPhone, is a combination. RX-59C, Q180–81. Claim 8a: MOGA discloses a structural bridge with ends associated with each control module. RX-59C, Q192, 207; RX-59C.A, Q207. Claim 8b: MOGA's structural bridge is configured for adaptation because it adjusts to accommodate the length of iPhone. RX-59C, Q192, 207; RX-59C.A, Q207. Claim 8c: MOGA's structural bridge accommodates iPhone's length, which is greater than its width. RX-59C, Q185, 192, 207; RX-847; RX-871[.]

Resps. Br. at 145-47.

Gamevice argues, in part:

> The evidence showed that claim 8 is valid over the Moga combination. *See* CX-0182C, Singhose Rebuttal WS Q/A 128. As the evidence showed, the Moga lacks any through hole that qualifies as the "void" limitation in claim 8 because the "holes" in Moga's bridge identified by Nintendo and Dr. Cameron are only on one cover in a two-covered bridge structure, and therefore, fail to go through the entire thickness of the bridge. *See id.* at Q/A 129-31.

Compl. Br. at 116-17.

The Staff argues, in part:

> MOGA Ace Power ("MOGA") (RPX-0081; RPX-0006; PRX-0018; RPX-0001; RPX-0082) is a game controller for iPhones that was designed to removably clamp to an iPhone using a spring and lock mechanism to grip the phone. *See* Resps. P.H. Br. at 141. MOGA was publicly available prior to February 2, 2015 and thus qualifies as prior art under 35 U.S.C. § 102(a)(1). *See id.*; RX-0059C (Cameron WS) at Q/A 158-167; RX-0908C (receipt for sale of MOGA); RX-0897 (review of MOGA); RX-0909 (review of MOGA). However, MOGA fails to disclose various limitations claimed by the '393 patent. *See* Compl. P.H. Br. at 111-116. For example, MOGA fails to teach the use of confinement structures interacting with not more than three sides of the computing device, communication links, separate and distinct game control modules, separate and distinct confinement structures, and a passageway. *Id.* (Singhose testimony cited therein).
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> The Apple iPhone 5 ("iPhone") (RPX-0033; RPX-0035) is a smart phone device that was publicly available prior to February 2, 2015, and thus qualifies as prior art under 35 U.S.C. § 102(a)(1). *See* Resps. P.H. Br. at 141; RX-0059C (Cameron WS) at Q/A 168-173; JX-0013 (Bateman Decl.). Nintendo relies upon the iPhone for use as a computing device in combination with other prior art. *Id.*
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> To the extent that Respondents contend that certain combinations of references and/or knowledge common to one of ordinary skill in the art render one or more of the asserted claims obvious, Prof. Singhose testified that the asserted claims are not rendered obvious by the combinations relied upon by Respondents. Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337. Accordingly, Nintendo has failed to show by clear and convincing evidence that the asserted combinations would have been obvious.

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> For example, none of the asserted combinations teaches or suggests "a combination" having: (1) "a pair of confinement structures, the pair of confinement structures interacting with the computing device and adjacent at least two opposing sides of the computing device, but not more than three sides of the sides of the computing device;" (2) "each of the pair of confinement structures comprising a communication link;" or (3) "each of the communication links configured for electronic communication with the computing device." Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337

Staff Br. at 89, 92-93.

The administrative law judge finds that Nintendo has shown by clear and convincing evidence that the combination of MOGA and iPhone renders independent claim 8 of the '393 patent obvious.

As an initial matter, "structural bridge" has been construed to mean "a physical apparatus that connects other components."

Claim 8 recites, in part, "the structural bridge provides a void, the void disposed between the first end of the structural bridge and the second end of the structural bridge, the void having right, left, upper, and lower sides, each side of the void communicating with a material of the structural bridge." Nintendo contends that Dr. Cameron identified two separate voids in the MOGA's bridge: (1) a small void in the left side of the bridge, and (2) a large void comprising the empty space between the two covers of MOGA's bridge. *See* Resps. Br. at 145-47 (citing RX-0059C (Cameron DWS) at Q/A 193. Regarding the first identified "small void", Dr. Cameron testified that the void is a "small hole on the bottom cover." RX-0059C (Cameron DWS) at Q/A 193. The administrative law judge finds that this "small void" does not satisfy the claim limitation because the upper side of the "small void" does not communicate with a material of the structural bridge.

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Regarding the second "large void", as shown in RX-0478C, reproduced below, MOGA's bridge contains a void, the void disposed between the first end of the structural bridge and the second end of the structural bridge, the void having right, left, upper, and lower sides, each side of the void communicating with a material of the structural bridge. No party sought to construe "void", and the plain meaning of "void" is "empty space." RX-1541.



RX-0478C

The administrative law judge finds that the "large void" satisfies the claim limitation, "the structural bridge provides a void, the void disposed between the first end of the structural bridge and the second end of the structural bridge, the void having right, left, upper, and lower sides, each side of the void communicating with a material of the structural bridge." The "large void" has right, left, upper, and lower sides, as shown in RX-0478C. Each of these sides in turn "communicat[es] with a material of the structural bridge" because each such side is in contact with the structural bridge.

Gamevice does not specifically argue any of the remaining limitations of claim 8. *See* Compl. Br. at 116-17. Moreover, MOGA, when used with iPhone, constitutes a combination. *See* RX-0059C (Cameron DWS) at Q/A 180-81. MOGA discloses a structural bridge with ends

associated with each control module. *See id.* at Q/A 192, 207. MOGA's structural bridge is configured for adaptation because it adjusts to accommodate the length of iPhone. *See id.* MOGA's structural bridge accommodates iPhone's length, which is greater than its width. *See id.* at Q/A 185, 192, 207; RX-0847; RX-0871.

The administrative law judge thus finds that Nintendo has shown by clear and convincing evidence that the combination of MOGA and iPhone renders claim 8 of the '393 patent obvious.

c. Claims 9-11

Nintendo argues, in part:

> MOGA discloses all limitations of dependent claims 9–11 when considering Gamevice's construction and interpretation. RX-59C, Q209–21. Gamevice argues that MOGA fails to disclose three elements: (1) claim 9b an attachment support; (2) claim 9b the attachment boss and attachment support securing the structural bridge; (3) claim 10a, b a guide aperture; and a position guide. CPBr.114–15; CX-182C, Q133–36. Gamevice and Dr. Singhose are improperly importing preferred embodiments as additional limitations of claims 9 and 10.
>
> First, Gamevice argues that MOGA fails to disclose the attachment support (claim 9b) because it is not a circuit board. CPBr.114–15; CX-182C, Q134. Claim 9 does not contain any such requirement. JX-1, 19:3–7. Gamevice is improperly importing a preferred embodiment. JX-1, 13:24–28, 16:28–32 (describing a preferred embodiment). Gamevice complains that Nintendo imports preferred embodiments into the claims—Nintendo does not—yet Gamevice seeks to do just that. As Dr. Cameron testified, MOGAs attachment support cooperates with the attachment boss to secure the bridge disposed between these components—the only requirements of claim 9b. RX-59C, Q216–19.
>
> Second, Gamevice argues that MOGA fails to disclose the attachment support and attachment boss because they do not confine the structural bridge vertically (*e.g.*, sandwich the bridge) (claim 9b). CPBr.115; CX-182C, Q134. Again, Gamevice is improperly importing a preferred embodiment into claim 9. Claim 9b only requires that the attachment support and attachment boss secure the structural bridge disposed between them. JX-1, 16:6–10 (describing a preferred embodiment). Claim 9 does not require the structural bridge to be secured vertically. JX-1, 19:3–7. As Dr. Cameron testified, the tab of MOGA's bridge fits between the attachment boss and attachment support, which work together to secure the structural bridge. RX-59C, Q216–19; RDX-10 at 0:30–1:20 (showing the attachment boss and attachment support securing the structural bridge, RX-59C,

Q178, 214, 223, 234; RPX-81). MOGA discloses claim 9b.

Third, Gamevice argues that MOGA does not disclose a guide aperture (claim 10a) or position guide (claim 10b) because they are physically separated and therefore cannot interact. CPBr.115; CX-182C, Q135; Tr. 891:15–24. Gamevice ignores Dr. Cameron's testimony where she describes that grooves in the control module (position guide) together with the rectangular depression (guide aperture) maintain alignment of the structural bridge and control module as the bridge adjusts. RX-59C, Q216–19; RX-491C; RX-483C. Gamevice's analysis conflicts with its infringement analysis of claim 12 that the spring member and boss (physically separated components) interact indirectly. CX-1C, Q643.

Gamevice does not contest that MOGA in view of iPhone discloses the remaining limitations of claims 9–11. CPBr.114–15; RPBr.145–46. Claim 9pre: MOGA discloses a tensioning mechanism and position guide. RX-59C, Q216–19; RX-491C; RX-483C. Claim 9a: MOGA discloses a notch (attachment boss) at the end of the rectangle in the left control module that communicates with the structural bridge to prevent it from overextending. RX-59C, Q216–19; RX-491C; RX-483C. Claim 9c: MOGA discloses a spring (biasing structure) that communicates with a slidable plastic rectangle (attachment stay) and provides tension between the bridge and control module. RX-59C, Q216–19; RX-491C; RX-483C; RDX-10 at 0:30–1:20 (showing operation of biasing structure, RX-59C, Q178, 214, 223, 234; RPX-81). Claim 11: MOGA has videogame control modules with buttons that pass signals through the Lightning connector to control images on iPhone's display screen. RX-59C, Q185, 202, 220; RX-470C.

Resps. Br. at 147-49.

Gamevice argues, in part:

The evidence showed that claims 9-11 are valid over the Moga combination. As an initial matter, claims 9-11 depend from claim 8, and thus, the Moga combination fails to render these claims obvious for the same reasons provided above for claim 8.

As the evidence showed, the Moga combination fails to render claims 9-11 obvious for additional reasons. *See* CX-0182C at Q/A 133. First, the Moga combination fails to disclose the "attachment support" because the component identified by Nintendo for this element, which is just an empty plastic piece, does not comport with the '393 patent, which defines the "attachment support" as a circuit board with control switches. *See id.* at Q/A 134. Also, the '393 patent defines the 'attachment support" and the "attachment boss" as confining the structural bridge vertically while allowing a lateral movement, but the components identified by Nintendo for these elements are provided on the same bottom cover, and therefore, they cannot vertically confine the structural bridge. *See id*.

> The evidence also showed that the Moga combination fails to disclose the claimed "guide aperture" and the "position guide." *See id.* at Q/A 135. Claim 10 requires these elements to interact with each other, but the components that Nintendo identified for these elements do not interact with each other because they are physically separated from each other without any other component connecting them. *See id.* at Q/A 135.
>
> Furthermore, claim 9 requires the "attachment boss" and the "attachment support" to cooperate with each other to secure the structural bridge, with the structural bridge disposed between them. But the components that Nintendo and Dr. Cameron identified for these elements do not cooperate with each other, and the structural bridge is not "disposed between" them because the structural bridge sits on top of both components. *See id.* at Q/A 136. Because the Moga combination fails to render claims 9-10 obvious, it also fails to render claim 11 obvious. *See id.* at Q/A 137.

Compl. Br. at 117-18.

The Staff argues, in part:

> MOGA Ace Power ("MOGA") (RPX-0081; RPX-0006; PRX-0018; RPX-0001; RPX-0082) is a game controller for iPhones that was designed to removably clamp to an iPhone using a spring and lock mechanism to grip the phone. *See* Resps. P.H. Br. at 141. MOGA was publicly available prior to February 2, 2015 and thus qualifies as prior art under 35 U.S.C. § 102(a)(1). *See id.*; RX-0059C (Cameron WS) at Q/A 158-167; RX-0908C (receipt for sale of MOGA); RX-0897 (review of MOGA); RX-0909 (review of MOGA). However, MOGA fails to disclose various limitations claimed by the '393 patent. *See* Compl. P.H. Br. at 111-116. For example, MOGA fails to teach the use of confinement structures interacting with not more than three sides of the computing device, communication links, separate and distinct game control modules, separate and distinct confinement structures, and a passageway. *Id.* (Singhose testimony cited therein).
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> The Apple iPhone 5 ("iPhone") (RPX-0033; RPX-0035) is a smart phone device that was publicly available prior to February 2, 2015, and thus qualifies as prior art under 35 U.S.C. § 102(a)(1). *See* Resps. P.H. Br. at 141; RX-0059C (Cameron WS) at Q/A 168-173; JX-0013 (Bateman Decl.). Nintendo relies upon the iPhone for use as a computing device in combination with other prior art. *Id.*
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> To the extent that Respondents contend that certain combinations of references and/or knowledge common to one of ordinary skill in the art render one or more of the asserted claims obvious, Prof. Singhose testified that the asserted

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> claims are not rendered obvious by the combinations relied upon by Respondents. Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337. Accordingly, Nintendo has failed to show by clear and convincing evidence that the asserted combinations would have been obvious.
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> For example, none of the asserted combinations teaches or suggests "a combination" having: (1) "a pair of confinement structures, the pair of confinement structures interacting with the computing device and adjacent at least two opposing sides of the computing device, but not more than three sides of the sides of the computing device;" (2) "each of the pair of confinement structures comprising a communication link;" or (3) "each of the communication links configured for electronic communication with the computing device." Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337.

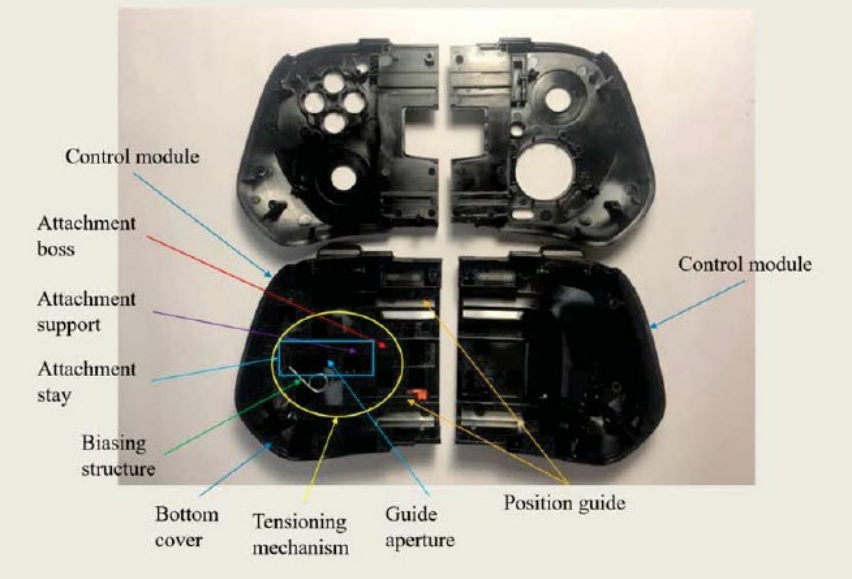
Staff Br. at 89, 92-93.

Claims 9-11 depend on claim 8. As discussed above, MOGA in view of iPhone renders obvious all limitations of independent claim 8.

Regarding claim 9, Gamevice argues that the MOGA combination fails to disclose the "attachment support" because the plastic piece identified by Nintendo "does not comport with the '393 patent, which defines the 'attachment support' as a circuit board with control switches." Compl. Br. at 117. As an initial matter, no party sought to construe "attachment support," *see* JX-0014, and the administrative law judge finds that the plain meaning of an "attachment support" does not require a circuit board with control switches.

Claim 9 recites, "an attachment support cooperating with the attachment boss, the attachment support in cooperation with the attachment boss secures the structural bridge, the structural bridge disposed between the attachment boss and the attachment support." Dr. Cameron identified the attachment support in the MOGA in the modified RX-0491C, reproduced below.

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RX-0491C (as modified by Dr. Cameron)

As shown in the modified RX-0491C, the purported attachment support and the attachment boss identified by Dr. Cameron are both found on the bottom cover of the MOGA control module. However, claim 9 recites, "the structural bridge disposed between the attachment boss and the attachment support." It is unclear how this limitation is satisfied when the attachment support and the attachment boss are both located on the bottom cover of the MOGA control module. Nintendo has not shown by clear and convincing evidence that the MOGA combination renders claim 9 obvious.

Claim 10 depends upon claim 9. As Nintendo has not shown that claim 9 is obvious, Nintendo has also failed to show that claim 10 is obvious. Claim 10 recites, "the attachment support comprises a guide aperture interacting with the position guide, the interaction of the guide aperture with the position guide maintains alignment between the structural bridge and the second of the pair of electronic game control modules." Nintendo argues that grooves in the control module (position guide) together with the rectangular depression (guide aperture)

maintain alignment of the structural bridge and control module as the bridge adjusts. Resps. Br. at 148. However, Dr. Cameron's alleged guide aperture and position guide do not interact with each other, and indeed cannot physically interact with each other because they are provided on the same cover, but physically separated from each other. *See* CX-0182C (Singhose RWS) at Q/A 135. The administrative law judge thus finds that Nintendo has failed to show that the MOGA combination discloses this limitation.

Claim 11 depends upon claim 9. As Nintendo has not shown that claim 9 is obvious, Nintendo has also failed to show that claim 11 is obvious. However, Nintendo has shown that at least one of the pair of electronic game control modules is a video game control module, and that the video game control module passes signals to the computing device, the signals control images displayed on an electronic display screen of the computing device. The MOGA has videogame control modules with buttons that pass signals through the Lightning connector to control images on iPhone's display screen. *See* RX-0059C (Cameron DWS) at Q/A 185, 202, 220; RX-0470C.

The administrative law judge thus finds that Nintendo has not shown by clear and convincing evidence that the combination of MOGA and iPhone renders claims 9-11 of the '393 patent obvious.

d. Claim 12

Nintendo argues, in part:

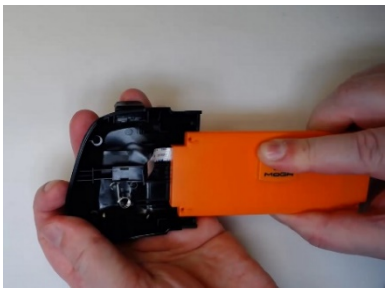
> MOGA discloses all limitations of independent claim 12 when considering Gamevice's construction and interpretation. RX-59C, Q221–25. Gamevice only disputes one element: an interaction of the spring member and boss that couples the structural bridge to a control module (claim 12h) because the components are physically separated and do not interact to secure the structural bridge. CPBr.115; CX-182C, Q138–40; Tr. 892:7–13; RDX-600.5 (showing disputed limitation, JX-1, claim 12). But this is incorrect. In fact, MOGA discloses two restraints with

spring members, one on the left control module and one on the right. RX-59C, Q221–25; Tr. 695:10–696:21. Both spring members interact with a boss of separate retention mechanisms on the structural bridge, one directly under Nintendo's interpretation of "interact," and the other indirectly under Gamevice's apparent interpretation of "interact," to couple MOGA's bridge to a control module. MOGA, therefore, invalidates claim 12.

Interaction of the restraint in MOGA's right control module. Dr. Cameron testified that the spring member in the right control module (a leaf spring) interacts with the retention mechanism Dr. Cameron identified on MOGA's structural bridge. RX-59C, Q225; RDX-10 (showing leaf spring, RX-59C, Q178, 214, 223, 234; RPX-81); RX-491C; Tr. 744:15–749:1; RDX-502–6 (showing leaf spring operation). In its Prehearing Brief, Gamevice misconstrued Dr. Cameron's analysis and failed to analyze the correct component. CPBr.115. At the hearing, Dr. Singhose confirmed that MOGA has a leaf spring. Tr. 901:21–902:5; RDX-621 (showing leaf spring, RPX-81). Dr. Singhose also confirmed that this spring directly interacts with the notches on the bridge Dr. Cameron identified as the retention mechanism. Tr. 902:9–903:6, 904:7–25; RDX-622 (showing operation of restraint and retention mechanism, RX-81); RDX-623 (same). As Dr. Cameron testified, this interaction couples the bridge to the right control module when the spring drops into indentations (boss under Gamevice's construction) of the retention mechanism on the bridge. RX-59C, Q221–25; Tr. 744:11–745:3, 748:2–749:1; RDX-501 (showing retention mechanism, RPX-81); RDX-506 (showing operation of MOGA restraint and retention mechanism, RPX-81); Singhose Tr. 904:7–15; RX-483C. Gamevice did not address whether this interaction meets the coupling limitation of claim 12h, waving any challenge here.

Interaction of the restraint in MOGA's left control module. Dr. Cameron also testified that MOGA's left control module discloses a restraint with a spring member. RX-59C, Q225; RDX-1.39 (annotated images RX-491C, RX-483C); RDX-618 (showing operation of restraint and retention mechanism, near right); RDX-619 (same, far right). Dr. Singhose confirmed that the spring in MOGA's left control module is a restraint with a spring member. Tr. 894:18–895:4; RDX-617 (identifying restraint in left control module, RPX-81). Dr. Singhose also agreed that MOGA's bridge has a retention mechanism with a boss (claim 12g) in the form of a hook on its right side. Tr. 892:19–893:7; RDX-614 (showing retention mechanism, RPX-81). Dr. Singhose also testified about the interaction of these components. Dr. Singhose confirmed that the spring member is connected to MOGA's attachment boss. Tr. 893:9–





894:16; RDX-615 (showing attachment boss, RPX-81); RDX-616 (showing connection of spring to attachment boss, RPX-81).

When MOGA is assembled, the boss of the retention mechanism is placed into the attachment boss. Tr. 895:6–23; RDX-618 (showing spring not under tension, RPX-81). When the bridge is extended, the spring member provides tension on the attachment boss, which provides tension on the boss of the bridge, to pull the structural bridge back into the control module. Singhose Tr. 895:25–896:19; RDX-618 (showing spring not under tension, RPX-81); RDX-619 (showing bridge extended and spring under tension, RPX-81). Dr. Singhose also testified that the interaction between the hook on the bridge and the attachment boss on the control module, in part, secure the bridge to a control module. CX-182C, Q140. His testimony at the hearing changed in two ways.

First, Dr. Singhose now argues that the interaction can be indirect, such that the spring can interact with the boss of the retention mechanism via the attachment boss. Tr. 896:23–897:8. This change in position is apparently to conform to his infringement position, where he argues that the interaction can be indirect and still satisfy the limitation. CPBr.62; CX-1C, Q648–49. If this interpretation is correct, MOGA invalidates claim 12. If, on the other hand, the interpretation is incorrect (and it is), then that is one additional reason that the Joy-Con Grip cannot infringe claim 12. Yet MOGA *still* invalidates claim 12, because MOGA discloses *both* direct and indirect interaction. Second, Dr. Singhose now argues that the operation of the spring member, attachment boss, and boss of the retention mechanism does not couple the control module to the bridge, testifying that these components are merely biasing structures and that other components are responsible for the coupling. Tr. 897:9–24. But this changed testimony is directly contradicted by his prior testimony in his witness statement, where he (accurately) testifies that the interaction of the attachment boss and boss of the retention mechniams contributes to securing the bridge to the left control module. CX-182C, Q140 (interaction of hook on bridge and attachment boss secure). Finally, Dr. Singhose's position that coupling in claim 12h requires "secure coupling" imports limitations into the claim. Tr. 914:8–12.

MOGA discloses the remaining limitations of claim 12. Gamevice does not contest that MOGA in view of iPhone discloses the remaining limitations of claim 12. CPBr.115; CX-182C, Q138–40; RPBr.146. Claim 12pre: MOGA, when used with iPhone, is a combination. RX-59C, Q180–81. Claim 12a: MOGA discloses first and second control modules. RX-59C, Q195, 225; RX-486C. Claim 12b: MOGA discloses that each control module includes buttons, joysticks, and a d-pad. RX-59C, Q195, 225; RX-486C. Claim 12d: MOGA's structural bridge is interposed between its control modules. RX-59C, Q192, 225; RX-486C. Claim 12e, f: MOGA's structural bridge has a first and second side that is partially within, next to and touching, the control modules. RX-59C, Q192, 225; RX-486C.

Resps. Br. at 149-52.

Gamevice argues, in part:

> The evidence showed that claim 12 is valid over the Moga combination. *See* CX-0182C, Singhose Rebuttal WS Q/A 138. The Moga combination fails to disclose the "restraint" and "retention mechanism" limitations. *See id*. First, claim 12 requires the spring member of the restraint to interact with the boss of the retention mechanism, but the components that Nintendo and Dr. Cameron identified for these elements do not interact with each other because they are physically separated from each other without any other component connecting them. *See id.* at Q/A 139; Cameron Tr. 699:6-700:23. Because these components do not interact, they also cannot secure the structural bridge to a control module as claimed. *See* CX-0182C at Q/A 140; Singhose Tr. 896:21-898:9.

Compl. Br. at 118.

The Staff argues, in part:

> MOGA Ace Power ("MOGA") (RPX-0081; RPX-0006; PRX-0018; RPX-0001; RPX-0082) is a game controller for iPhones that was designed to removably clamp to an iPhone using a spring and lock mechanism to grip the phone. *See* Resps. P.H. Br. at 141. MOGA was publicly available prior to February 2, 2015 and thus qualifies as prior art under 35 U.S.C. § 102(a)(1). *See id.*; RX-0059C (Cameron WS) at Q/A 158-167; RX-0908C (receipt for sale of MOGA); RX-0897 (review of MOGA); RX-0909 (review of MOGA). However, MOGA fails to disclose various limitations claimed by the '393 patent. *See* Compl. P.H. Br. at 111-116. For example, MOGA fails to teach the use of confinement structures interacting with not more than three sides of the computing device, communication links, separate and distinct game control modules, separate and distinct confinement structures, and a passageway. *Id.* (Singhose testimony cited therein).
>
> * * *
>
> The Apple iPhone 5 ("iPhone") (RPX-0033; RPX-0035) is a smart phone device that was publicly available prior to February 2, 2015, and thus qualifies as prior art under 35 U.S.C. § 102(a)(1). *See* Resps. P.H. Br. at 141; RX-0059C (Cameron WS) at Q/A 168-173; JX-0013 (Bateman Decl.). Nintendo relies upon the iPhone for use as a computing device in combination with other prior art. *Id.*
>
> * * *
>
> To the extent that Respondents contend that certain combinations of references and/or knowledge common to one of ordinary skill in the art render one or more of the asserted claims obvious, Prof. Singhose testified that the asserted claims are not rendered obvious by the combinations relied upon by Respondents. Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337. Accordingly, Nintendo has failed to show by clear and convincing evidence that

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the asserted combinations would have been obvious.

> For example, none of the asserted combinations teaches or suggests "a combination" having: (1) "a pair of confinement structures, the pair of confinement structures interacting with the computing device and adjacent at least two opposing sides of the computing device, but not more than three sides of the sides of the computing device;" (2) "each of the pair of confinement structures comprising a communication link;" or (3) "each of the communication links configured for electronic communication with the computing device." Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337

Staff Br. at 89, 92-93.

The administrative law judge finds that Nintendo has not shown by clear and convincing evidence that the combination of MOGA and iPhone renders independent claim 12 of the '393 patent obvious.

Regarding claim 12, Gamevice argues that the MOGA combination fails to disclose the "restraint" and "retention mechanism" limitations. Compl. Br. at 118. As an initial matter, no party sought to construe "restraint," *see* JX-0014, and the administrative law judge has determined that the term "retention mechanism" is subject to § 112(f), and the relevant function is "securing the structural bridge to the control modules." The corresponding structures are: (1) the mechanical arrangement, as shown in Figure 14, using a confinement boss 262 having a fastening detent 264 that interacts with a retention member 266 that is responsive to a catch 268 to secure the structural bridge 258 to the pair of control modules 252 (JX-0001 ('393 patent) at Fig. 14; col. 8, lns. 38-49); (2) the mechanical arrangement, as shown in Figures 27 and 29, using a boss 430 interacting with an adjustment structure 432 to adaptively secure the control module 402 to a structural bridge 422 (JX-0001 ('393 patent) at Figs. 27 and 29; col. 11, ln. 58 – col. 12, ln. 39); and (3) equivalents thereof.

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Nintendo only performed an analysis of whether claim 12 is invalid when construed according to Gamevice's construction. *See* Resps. Br. at 149-52.

The administrative law judge thus finds that Nintendo has not shown by clear and convincing evidence that the combination of MOGA and iPhone renders claim 12 of the '393 patent obvious.

e. Claims 17-18

Nintendo argues, in part:

> MOGA and iPhone disclose all limitations of claims 16–18 when considering Gamevice's construction and interpretations. RX-59C, Q226–30; RPBr.146–47. Gamevice does not contest that MOGA and iPhone disclose all claim 16 limitations. CPBr.115; CX-182C, Q141. Claim 16pre: MOGA, used with iPhone, is a combination. RX-59C, Q180–81. Claim 16a: MOGA discloses control modules, confinement structures, and a structural bridge. MOGA's control modules contain grooves (retention mechanism) securing the bridge to the control modules. RX-59C, Q187, 192, 195, 228, 232; RX-491C. Claim 16b: iPhone provides a CPU and a plurality of sides. RX-59C, Q185, 228; RX-871. Claim 16c: iPhone discloses that each side cooperates with the display screen. RX-59C, Q185, 228; RX-871. Claim 16d: MOGA discloses control modules controlling movement of a virtual object displayed on iPhone. RX-59C, Q202, 228. Claim 16e: iPhone's CPU provides an electronic game. RX-59C, Q202, 228; RX-871. Claim 16f: MOGA's control modules accommodate the controller. RX-59C, Q195, 228.
>
> Gamevice only contests that MOGA and iPhone do not render claims 17–18 obvious for the same reasons as claim 1. CPBr.116; CX-182C, Q141–42. For the reasons discussed above for claim 1, MOGA and iPhone disclose all limitations that Gamevice disputes, as well as all remaining undisputed limitations of claim 1 and limitations of dependent claims 17 and 18. RX-59C, Q185–95, 229–30. For claim 17, MOGA's confinement structures are in pressing contact with the top and bottom of iPhone. RX-59C, Q229; RX-468C. For claim 18, MOGA's control module include buttons, joysticks, and a d-pad that are adjacent to the top and bottom sides of iPhone, and control movement of a virtual object on iPhone's display screen. RX-59C, Q230; RX-468C.

Resps. Br. at 152-53.

Gamevice argues, in part:

> The evidence showed that claim 17 is valid over the Moga combination. *See* CX-0182C at Q/A 141. Many of the limitations in claim 17 overlap with the

limitations in claim 1, such as "confinement structures" and "communication links." Therefore, the Moga combination fails to render claim 17 obvious for the same reasons provided above for claim 1. *See id*.

Claim 18 depends from claim 17, and therefore, the Moga combination fails to render claim 18 obvious for the same reasons it cannot render claim 17 obvious. *See id*. Claim 18 further recites "each electronic game control module in electronic communication with the communication link of its corresponding confinement structure," and the Moga combination fails to disclose the "communication link of its corresponding confinement structure" for the reasons explained above in connection with claim 1. *See id*.

Compl. Br. at 118-19.

The Staff argues, in part:

MOGA Ace Power ("MOGA") (RPX-0081; RPX-0006; PRX-0018; RPX-0001; RPX-0082) is a game controller for iPhones that was designed to removably clamp to an iPhone using a spring and lock mechanism to grip the phone. *See* Resps. P.H. Br. at 141. MOGA was publicly available prior to February 2, 2015 and thus qualifies as prior art under 35 U.S.C. § 102(a)(1). *See id.*; RX-0059C (Cameron WS) at Q/A 158-167; RX-0908C (receipt for sale of MOGA); RX-0897 (review of MOGA); RX-0909 (review of MOGA). However, MOGA fails to disclose various limitations claimed by the '393 patent. *See* Compl. P.H. Br. at 111-116. For example, MOGA fails to teach the use of confinement structures interacting with not more than three sides of the computing device, communication links, separate and distinct game control modules, separate and distinct confinement structures, and a passageway. *Id.* (Singhose testimony cited therein).

* * *

The Apple iPhone 5 ("iPhone") (RPX-0033; RPX-0035) is a smart phone device that was publicly available prior to February 2, 2015, and thus qualifies as prior art under 35 U.S.C. § 102(a)(1). *See* Resps. P.H. Br. at 141; RX-0059C (Cameron WS) at Q/A 168-173; JX-0013 (Bateman Decl.). Nintendo relies upon the iPhone for use as a computing device in combination with other prior art. *Id.*

* * *

To the extent that Respondents contend that certain combinations of references and/or knowledge common to one of ordinary skill in the art render one or more of the asserted claims obvious, Prof. Singhose testified that the asserted claims are not rendered obvious by the combinations relied upon by Respondents. Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337. Accordingly, Nintendo has failed to show by clear and convincing evidence that the asserted combinations would have been obvious.

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> For example, none of the asserted combinations teaches or suggests "a combination" having: (1) "a pair of confinement structures, the pair of confinement structures interacting with the computing device and adjacent at least two opposing sides of the computing device, but not more than three sides of the sides of the computing device;" (2) "each of the pair of confinement structures comprising a communication link;" or (3) "each of the communication links configured for electronic communication with the computing device." Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337

Staff Br. at 89, 92-93.

The administrative law judge finds that Nintendo has not shown by clear and convincing evidence that the combination of MOGA and iPhone renders claims 17 or 18 of the '393 patent obvious.

As noted above, the flexible printed circuit in the MOGA is not "comprised" in any of the identified confinement structures. Hence, the MOGA combination fails to disclose "each of the pair of confinement structures comprising a communication link." *See* CX-0182C (Singhose RWS) at Q/A 114.

Moreover, the administrative law judge finds that Nintendo has not shown by clear and convincing evidence that the combination of MOGA and iPhone discloses that each control module is a separate and distinct structure from the pair of confinement structures.

The administrative law judge thus finds that Nintendo has not shown by clear and convincing evidence that the combination of MOGA and iPhone renders claims 17 or 18 of the '393 patent obvious.

f. Claims 19-20

Nintendo argues, in part:

> MOGA and iPhone disclose all limitations of dependent claims 19–20 when considering Gamevice's construction and interpretation. RX-59C, Q231–33; RX-59C.A, Q231–32; RPBr.147–48. Gamevice only contests whether MOGA in view of iPhone discloses two elements; (1) a retention mechanism that secures MOGA's

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bridge to a control module and (2) a void. CPBr.116; CX-182C, Q143–46. Gamevice's arguments are inconsistent with its domestic industry contentions, and the '393 patent, and disregard Dr. Cameron's testimony.

First, Gamevice argues that the grooves in the top and bottom cover of MOGA's control modules (retention mechanism) do not secure the bridge to the control modules because they only facilitate lateral movement. CPBr.116; CX-182C, Q143. Gamevice disregards Dr. Cameron's testimony and MOGA's disclosure. As Dr. Cameron testified, the grooves in MOGA's control modules contain lips at the end, which work with four protrusions on each corner of MOGA's structural bridge (on each side of the bridge) to act as a fail-safe mechanical stop and prevent the bridge from being removed from the control modules. RX-59C, Q232; RX-59C.A, Q232. Dr. Singhose testified that MOGA's attachment boss and some "end stops" are what "securely" couples MOGA's bridge to its control modules. Tr. 897:9–16, 914:8–12. Dr. Singhose, therefore, agrees that the interaction between a protrusion (here four protrusions in the corners of each side of MOGA's structural bridge) and end stops (here the end of the grooves identified as MOGA's retention mechanism) secures the bridge to the control modules.

Further, Gamevice's argument that MOGA's retention mechanism does not secure the bridge to the control modules because it is secured through other means conflicts with its domestic industry analysis, where it acknowledges that the DI products' alleged retention mechanism is not the only component that secures the purported bridge to the control modules, yet argues still satisfy the securing limitation. CPBr.116; CX-182C, Q143; CX-1C, Q1121, 1318.

Second, MOGA discloses a void for the same reasons discussed for claim 8 above. RX-59C, Q193, 232. Further, the second void, not contested by Dr. Singhose, is in the mid-section of the bridge. RX-59C, Q193, 232; RX-59C.A, Q193; CPBr.116; CX-182C, Q144.

Gamevice does not dispute that MOGA and iPhone disclose each remaining limitation of claim 19. CPBr.116. For the reasons discussed above for claim 1, MOGA and iPhone disclose each remaining, undisputed limitation of claim 19. RX-59C, Q231–33; RX-59C.A, Q231–32. Gamevice does not raise any independent argument rebutting that MOGA and iPhone disclose all limitations of claim 20. For the reasons discussed above for claim 19 and claim 1, MOGA and iPhone disclose each undisputed limitation of claim 20. RX-59C, Q231–33. For claim 20, MOGA's control modules are adjacent the top and bottom sides of iPhone and are in pressing contact with iPhone. RX-59C, Q185, 192, 195, 232; RX-468C.

Resps. Br. at 153-54.

Gamevice argues, in part:

> The evidence showed that claim 19 is valid over the Moga combination. First, the Moga combination fails to disclose the "retention mechanism" limitation. *See* CX-0182C, Singhose Rebuttal WS Q/A 143. Nintendo and Dr. Cameron appear to argue that protrusions on the inner portions of the bottom covers of the Moga disclose this limitation, but the evidence showed that those protrusions do not secure Moga's bridge to a control module. *See id*. Second, the Moga combination fails to disclose the "void" limitation for the same reasons explained above for claim 8. *See id.* at Q/A 144. Claim 19 further requires the void to be in the mid-section, but the "holes" identified by Nintendo for this limitation are not in the mid-section of Moga's bridge. *See id*. Claim 20 depends from claim 19, so the Moga combination fails to render claim 20 obvious for the same reasons it cannot render claim 19 obvious, as explained above. *See id.* at Q/A 146.

Compl. Br. at 119.

The Staff argues, in part:

> MOGA Ace Power ("MOGA") (RPX-0081; RPX-0006; PRX-0018; RPX-0001; RPX-0082) is a game controller for iPhones that was designed to removably clamp to an iPhone using a spring and lock mechanism to grip the phone. *See* Resps. P.H. Br. at 141. MOGA was publicly available prior to February 2, 2015 and thus qualifies as prior art under 35 U.S.C. § 102(a)(1). *See id.*; RX-0059C (Cameron WS) at Q/A 158-167; RX-0908C (receipt for sale of MOGA); RX-0897 (review of MOGA); RX-0909 (review of MOGA). However, MOGA fails to disclose various limitations claimed by the '393 patent. *See* Compl. P.H. Br. at 111-116. For example, MOGA fails to teach the use of confinement structures interacting with not more than three sides of the computing device, communication links, separate and distinct game control modules, separate and distinct confinement structures, and a passageway. *Id.* (Singhose testimony cited therein).
>
> * * *
>
> The Apple iPhone 5 ("iPhone") (RPX-0033; RPX-0035) is a smart phone device that was publicly available prior to February 2, 2015, and thus qualifies as prior art under 35 U.S.C. § 102(a)(1). *See* Resps. P.H. Br. at 141; RX-0059C (Cameron WS) at Q/A 168-173; JX-0013 (Bateman Decl.). Nintendo relies upon the iPhone for use as a computing device in combination with other prior art. *Id.*
>
> * * *
>
> To the extent that Respondents contend that certain combinations of references and/or knowledge common to one of ordinary skill in the art render one or more of the asserted claims obvious, Prof. Singhose testified that the asserted claims are not rendered obvious by the combinations relied upon by Respondents. Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337. Accordingly, Nintendo has failed to show by clear and convincing evidence that

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the asserted combinations would have been obvious.

> For example, none of the asserted combinations teaches or suggests "a combination" having: (1) "a pair of confinement structures, the pair of confinement structures interacting with the computing device and adjacent at least two opposing sides of the computing device, but not more than three sides of the sides of the computing device;" (2) "each of the pair of confinement structures comprising a communication link;" or (3) "each of the communication links configured for electronic communication with the computing device." Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337

Staff Br. at 89, 92-93.

The administrative law judge finds that Nintendo has not shown by clear and convincing evidence that the combination of MOGA and iPhone renders claims 19 or 20 of the '393 patent obvious.

Regarding claim 19, Gamevice argues that the MOGA combination fails to disclose the "retention mechanism" limitation. Compl. Br. at 118. As an initial matter, the administrative law judge has determined that the term "retention mechanism" is subject to § 112(f), and the relevant function is "securing the structural bridge to the control modules." The corresponding structures are: (1) the mechanical arrangement, as shown in Figure 14, using a confinement boss 262 having a fastening detent 264 that interacts with a retention member 266 that is responsive to a catch 268 to secure the structural bridge 258 to the pair of control modules 252 (JX-0001 ('393 patent) at Fig. 14; col. 8, lns. 38-49); (2) the mechanical arrangement, as shown in Figures 27 and 29, using a boss 430 interacting with an adjustment structure 432 to adaptively secure the control module 402 to a structural bridge 422 (JX-0001 ('393 patent) at Figs. 27 and 29; col. 11, ln. 58 – col. 12, ln. 39); and (3) equivalents thereof.

Nintendo only performed an analysis of whether claim 19 is invalid when construed according to Gamevice's construction. *See* Resps. Br. at 153-54.

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The administrative law judge thus finds that Nintendo has not shown by clear and convincing evidence that the combination of MOGA and iPhone renders claims 19 or 20 of the '393 patent obvious.

g. Claims 21-22

Nintendo argues, in part:

> MOGA and iPhone disclose all limitations of dependent claims 21–22 when considering Gamevice's construction and interpretation. RX-59C, Q234–38. Gamevice only contests one limitation: whether MOGA discloses a fastening latch and retention member that restrain the bridge to the control modules. CPBr.117; CX-182C, Q147–49. Gamevice's argument ignores both Dr. Cameron's testimony and the disclosure of MOGA.
>
> Gamevice only disputes whether the interaction of MOGA's S.M.R.T. lock feature (fastening latch, undisputed) and grooves in MOGA's bridge (retention member, undisputed) secure MOGA's bridge to the control modules. CPBr.117; CX-182C, Q148. As Dr. Cameron testified, the S.M.R.T. lock interacts with the retention member of the bridge to lock it into place. RX-59C, Q237; RX-59C.A, Q237; RX-847C; RX-1459. Engaging the S.M.R.T. lock restrains the bridge to the control module, so that the bridge is unable to move. RX-59C, Q237; RX-1459; RX-847.2 ("To prevent your MOGA ACE POWER from sliding open when there is no device installed, simply close it and slide the S.M.R.T. LOCK switch to LOCK"). Dr. Singhose testified that when the lock is in the "release" position, the bridge can move. Tr. 899:4–900:15. Dr. Singhose also agreed that when the lock is engaged, it sets the bridge at a certain extension, where the bridge cannot move or be pulled out of the control module. Tr. 899:4–901:14; RDX-620 (showing fastening latch, RPX-6). Dr. Singhose gives no reasoning to support how locking the bridge in a single position to the control module does not restrain it to the control module. CPBr.117; CX-182C, Q148.
>
> Dr. Singhose further argues that the S.M.R.T. lock cannot restrain the bridge to the control module because the bridge is already secured by another component. CX-182C, Q148. Dr. Singhose's analysis conflicts with his domestic industry analysis, where he argues the DI products' alleged fastening latch and retention member do not need to be the only components that restrain the bridge to the control modules. CX-1C, Q880. Nothing in the '393 patent requires that the fastening latch and retention member be the only components that restrain the structural bridge to the control modules. *Id.* If MOGA does not disclose this limitation, none of the DI products meet this limitation.
>
> Gamevice does not dispute that MOGA and iPhone disclose each remaining limitation of claim 21. CPBr.117. For the reasons discussed above for claim 1,

> MOGA and iPhone disclose each remaining, undisputed limitation of claim 21. RX-59C, Q234–38. Gamevice does not raise any independent argument rebutting that MOGA and iPhone disclose all limitations of claim 22. CPBr.117; CX-182C, Q149. For the reasons discussed above for claim 21 and claim 1, MOGA and iPhone disclose each limitation of claim 22. RX-59C, Q185, 195, 202, 238.

Resps. Br. at 154-55.

Gamevice argues, in part:

> The evidence showed that claim 21 is valid over the Moga combination. *See* CX-0182C, Singhose Rebuttal WS Q/A 145. The Moga combination fails to disclose the "fastening latch" and "retention member" limitations in claim 21. *See id.* at Q/A 147-48. Nintendo identifies the S.M.R.T. lock feature in the Moga as disclosing this limitation, but fails to explain how that feature "restrains the structural bridge to a control module," as claimed. *See id.* at Q/A 148. The S.M.R.T. lock feature locks the Moga bridge at a certain length, but it does not restrain the structural bridge to a control module. *See id.*; Singhose Tr. 899:4-901:11. Claim 22 depends from claim 21, so the Moga combination fails to render claim 22 obvious for the same reasons it cannot render claim 21 obvious, as explained above.

Compl. Br. at 119.

The Staff argues, in part:

> MOGA Ace Power ("MOGA") (RPX-0081; RPX-0006; PRX-0018; RPX-0001; RPX-0082) is a game controller for iPhones that was designed to removably clamp to an iPhone using a spring and lock mechanism to grip the phone. *See* Resps. P.H. Br. at 141. MOGA was publicly available prior to February 2, 2015 and thus qualifies as prior art under 35 U.S.C. § 102(a)(1). *See id.*; RX-0059C (Cameron WS) at Q/A 158-167; RX-0908C (receipt for sale of MOGA); RX-0897 (review of MOGA); RX-0909 (review of MOGA). However, MOGA fails to disclose various limitations claimed by the '393 patent. *See* Compl. P.H. Br. at 111-116. For example, MOGA fails to teach the use of confinement structures interacting with not more than three sides of the computing device, communication links, separate and distinct game control modules, separate and distinct confinement structures, and a passageway. *Id.* (Singhose testimony cited therein).
>
> * * *
>
> The Apple iPhone 5 ("iPhone") (RPX-0033; RPX-0035) is a smart phone device that was publicly available prior to February 2, 2015, and thus qualifies as prior art under 35 U.S.C. § 102(a)(1). *See* Resps. P.H. Br. at 141; RX-0059C (Cameron WS) at Q/A 168-173; JX-0013 (Bateman Decl.). Nintendo relies upon the iPhone for use as a computing device in combination with other prior art. *Id.*

* * *

> To the extent that Respondents contend that certain combinations of references and/or knowledge common to one of ordinary skill in the art render one or more of the asserted claims obvious, Prof. Singhose testified that the asserted claims are not rendered obvious by the combinations relied upon by Respondents. Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337. Accordingly, Nintendo has failed to show by clear and convincing evidence that the asserted combinations would have been obvious.
>
> For example, none of the asserted combinations teaches or suggests "a combination" having: (1) "a pair of confinement structures, the pair of confinement structures interacting with the computing device and adjacent at least two opposing sides of the computing device, but not more than three sides of the sides of the computing device;" (2) "each of the pair of confinement structures comprising a communication link;" or (3) "each of the communication links configured for electronic communication with the computing device." Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337

Staff Br. at 89, 92-93.

The administrative law judge finds that Nintendo has not shown by clear and convincing evidence that the combination of MOGA and iPhone renders claims 21 or 22 of the '393 patent obvious.

Regarding claim 21, Gamevice argues that the MOGA combination fails to disclose the "fastening latch" and "retention member" limitations. Compl. Br. at 119. As an initial matter, no party argued for the construction of "fastening latch," *see* JX-0014, and the administrative law judge has determined that (1) the term "retention member" is subject to § 112(f); (2) the relevant function is "interacting with the fastening latch, the interaction of the fastening latch with the retention member restraining the structural bridge to a control module of the pair of control modules, and the pair of control modules to the computing device"; and (3) the corresponding structure is "a cylindrical post or column, including the recesses, depicted in Figure 14, at the interface between the confinement boss and the retention member."

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Nintendo only performed an analysis of whether claim 21 is invalid when construed according to Gamevice's construction. *See* Resps. Br. at 154-55.

The administrative law judge thus finds that Nintendo has not shown by clear and convincing evidence that the combination of MOGA and iPhone renders claims 21 or 22 of the '393 patent obvious.

5. Obviousness – Schoenith in View of Kessler

U.S. Patent No. 9,539,507 ("Schoenith") was filed on July 11, 2014 and published on January 15, 2015. RX-0115 (Schoenith). As discussed above with respect to anticipation, Kessler was published on May 30, 2013, and therefore qualifies as prior art to the '393 patent. *See* RX-0116 (Kessler).

a. Claims 1-4 and 6-7

Nintendo argues, in part:

> Schoenith and Kessler disclose all limitations of claim 1 when considering Gamevice's construction and interpretation. RX-59C, Q336–46. Gamevice argues that Schoenith in view of Kessler fails to disclose five elements: (1) claim 1b a pair of confinement structures; (2) claim 1d a communication link; (3) claim 1e a rigid structural bridge; (4) claim 1f a passageway; and (5) claim 1l a pair of confinement structures separate and distinct from the structural bridge. CPBr.122–25. Gamevice's arguments are directly contradicted by the Schoenith and Kessler's disclosure, the knowledge of a POSA, the PTAB's findings, or are only directed at a single reference instead of Nintendo's proposed combination. RX-59C, Q336–46; RX-115; RX-116.
>
> First, Gamevice argues that Schoenith's raised walls (identified by Dr. Cameron as the recited confinement structures) do not disclose a pair of confinement structures (claim 1b) because they are part of a single cradle structure. CPBr.122–23; CX-182C, Q223. Gamevice is improperly importing a limitation because there is no requirement that the pair of confinement structures be separate and distinct from each other or that components must be separate and distinct to constitute a pair, as confirmed by the PTAB. RX-1732.14–15. Gamevice continues its argument that Schoenith's raised walls do not disclose the pair of confinement structures because they interact with the computing device on four sides (claim 1c). CPBr.122–23; CX-182C, Q227. This argument ignores Schoenith's disclosure (the exact disclosure the PTAB relied on) that the raised walls may be on less than four

sides of the computing device. RX-115, 6:51–62, 9:66–10:3; RX-1731.12–13; RX-59C, Q338. Schoenith, therefore, discloses a pair of confinement structures. RX-59C, Q338.

Second, Gamevice argues that Schoenith does not disclose a pair of confinement structures comprising a communication link (claim 1d) because Schoenith teaches that its preferred embodiment uses Bluetooth. CPBr.123; CX-182C, Q225–26. Schoenith does not disclaim using any other communication method and states that a wired connection is possible. RX-59C, Q340, 346; RX-115, 7:34–48. Gamevice improperly limits the prior art to a preferred embodiment and ignores the holding of the PTAB, which found that Schoenith discloses a communication link. RX-1731.12; RX-115, 1:6–62, 6:1–62, 7:34–48.

Third, Gamevice argues that Schoenith fails to disclose a rigid structural bridge (claim 1e) because Schoenith's cradle has a large opening, which could render the cradle flexible. CPBr.123; CX-182C, Q230–31. This argument ignores Nintendo's proposed combination that would utilize Kessler's adjustable bridge, which is made of rigid sheet steel. RX-59C, Q147, 341; RX-116 ¶¶ 20, 89. Gamevice does not dispute that Kessler's telescoping bridge is a rigid structural bridge and has waived that argument.

Fourth, Gamevice argues that Schoenith in combination with Kessler fails to disclose a passageway (claim 1f) because Schoenith's cradle does not have space that accommodates or holds a communication wire. CPBr.124; CX-182C, Q235–38. This argument ignores Nintendo's proposed combination that would utilize Kessler's adjustable bridge, which contains a passageway. RX-59C, Q341, 346; RX-116 ¶¶ 26–27. Gamevice does not dispute that Kessler discloses a passageway and has waived that argument.

Fifth, Gamevice argues that Schoenith fails to disclose a pair of confinement structures that are separate and distinct from the structural bridge (claim 1l) because Schoenith's raised walls are part of a unitary cradle. CPBr.125; CX-182C, Q240. Gamevice's argument ignores Nintendo's proposed combination that would utilize Kessler's adjustable bridge and Schoenith's raised walls. RX-59C, Q341, 346. A POSA would be motivated to incorporate Kessler's bridge into Schoenith's controller, retaining Schoenith's raised walls to keep the computing device secure. RX-59C, Q116–18, 136–38, 147, 327.

Gamevice does not contest that the combination of Schoenith and Kessler discloses the remaining limitations of claim 1. CPBr.122–25; RPBr.156–57. Claim 1pre: The input device of Schoenith and Kessler, used with a computing device, discloses a combination. RX-59C, Q336–37. Claim 1a: Schoenith discloses that its controller is compatible with a computing device. RX-59C, Q337, 346; RX-115, 4:32–39. Claim 1g: Kessler discloses that its control modules are electrically connected by a connection means that passes through the interior of its structural bridge. RX-59C, Q341, 346; RX-116 ¶¶ 26–27. Claim 1h: Schoenith discloses a

pair of control modules. RX-59C, Q345–46; RX-115.12. Claim 1i: Each control module of Schoenith is secured to and interacts with Schoenith's raised walls. RX-59C, Q345–46; RX-115.6, 12. Claim 1j: A POSA would understand that Schoenith's control modules are in electronic communication with each communication link, so they can communicate with each other and the computing device. RX-59C, Q345–46. Claim 1k: Schoenith's control modules are detachable, *i.e.*, separate and distinct from its raised walls. RX-59C, Q339, 346; RX-115.6.

* * *

Gamevice does not contest that Schoenith and Kessler disclose claims 2–4 and 6–7, but instead solely relies on its arguments concerning claim 1. CPBr.125; CX-182C, Q241. The combination of Schoenith and Kessler renders claims 2–4 and 6–7 obvious. RX-59C, Q347–51; RPBr.157. Schoenith and Kessler render claim 2 obvious because Kessler's rigid structural bridge supports a computing device, which contains electronics. RX-59C, Q347; RX-116.34. Schoenith and Kessler render claim 3 obvious because Schoenith's computing device comprises a back with an internal surface and external surface that cooperates with at least two opposing sides of the computing device. RX-59C, Q337, 348; RX-115.6. Schoenith and Kessler render claim 4 obvious because Kessler's rigid structural bridge cooperates with the back of a computing device. RX-59C, Q349; RX-116.34. Schoenith and Kessler render claim 6 obvious because Schoenith's control modules pass signals through their communication links and through a wired connection to the computing device, where the signals control images on the display screen. RX-59C, Q337, 350; RX-115, 4:32–39, 7:34–48. Schoenith and Kessler render claim 7 obvious because computing devices contain communication modules that are supported by Kessler's rigid structural bridge. RX-59C, Q351; RX-116.34.

Resps. Br. at 168-71.

Gamevice argues, in part:

The evidence showed that claim 1 is valid over the Schoenith combination. *See id.* at Q/A 221. First, the Schoenith combination fails to disclose "a pair of confinement structures" because both Schoenith and Kessler fail to disclose this limitation. *See id.* at Q/A 222-23. Schoenith fails to disclose this limitation because the left and right sides of the raised walls, what Nintendo identified as the confinement structures, are part of a single cradle structure, and therefore, fail to satisfy the "pair of" limitation. *See id.*; CDX-0003C.0012. The cradle also fails to meet the requirement that the "pair of confinement structures" must interact with not more than three sides of a computing device because it interacts with all four sides of a computing device. *See* CX-0182C at Q/A 223, 227. Kessler also fails to disclose the "confinement structures" limitation because the gripping studs do not comprise any communication links for the same reasons explained above for

PhoneJoy. *See id.* at Q/A 224; CDX-0003C.0013.

Second, the Schoenith combination fails to disclose "a pair of confinement structures comprising a communication link, each of the communication links configured for electronic communication with the computing device." *See id.* at Q/A 225. A POSITA would not attempt to add a communication link in the cradle because Schoenith expressly teaches that its preferred embodiment uses Bluetooth connectivity. *See id.* at Q/A 225. Also, a POSITA would not add Lightning connectors to the cradle because one of the connectors would have nothing to communicate with. *See id.* at Q/A 226. Similarly, adding Michael's audio jack to the Schoenith combination fails to remedy this deficiency because both the audio jack and the Lightning connector would have to be provided on the same side, given the configuration of an iPhone. *See id.* at Q/A 227-28.

Third, the Schoenith combination fails to disclose "a rigid structural bridge" limitation because Schoenith teaches that it has a large opening in the middle with very slim top and bottom edges, which could render the cradle flexible, depending on the material used. *See id.* at Q/A 230. Schoenith also teaches using "polymeric and elastomeric materials" for the cradles, which are not rigid materials when used in slim sections. *See id.* Furthermore, Schoenith's cradle is not "disposed between and secured to the pair of confinement structures" because the cradle is a unitary structure, so it cannot be disposed between purported confinement structures because it is the "confinement structures" under Nintendo's argument. *See id.* 233-234.

Nintendo instead argues that a POSITA would have combined the raised side walls of Schoenith's cradle with Kessler's telescoping bridge. *See id.* at Q/A 231. The evidence showed that a POSITA would not combine Schoenith with Kessler in this manner because the resulting device would be unsatisfactory for its intended purpose. *See id.* at Q/A 216. For example, combining an adjustable structural bridge with detachable game control modules would make the connections between the cradle, the game control modules, and the computing device unstable, reducing the device's ability to hold a computing device in place. *See id.* Furthermore, when a user pulls the controllers apart to open the Kessler device, the controllers would disengage, rendering the device unusable for its intended purpose. *See id.* Also, Nintendo appears to have removed the springs from Kessler in its proposed combination, but doing so would destroy the principle of operation of Kessler. *See id.* Kessler relies on the tension in the bridge to clamp a computing device between two controllers. *See id.* Therefore, removing the springs would remove Kessler's ability to hold a computing device. *See id.*

Fourth, the Schoenith combination fails to disclose the "passageway" limitation because Schoenith's cradle does not have any space that accommodates or holds a communication wire, as required by the parties' constructions for the term. *See id.* at Q/A 235-36. A POSITA would not add a wire to the cradle, given that Schoenith expressly indicates preference for Bluetooth connectivity. *See id.*

> Also, any statement indicating that Schoenith may have a wired connection is not sufficiently enable a person of ordinary skill in the art to practice this limitation. *See id.* at Q/A 237.
>
> A POSITA would not have combined Schoenith and Kessler to arrive at the "passageway" limitation because doing so would destroy the principles of operation of Schoenith and Kessler. *See id.* at Q/A 238-39. Schoenith is a modular device, in which its cradle is completely separate from the controllers, so adding a ribbon cable that runs from one controller to another, as in Kessler, would effectively connect the controllers and the structural bridge in a permanent manner, destroying Schoenith's modularity. *See id.* Also, adding a communication wire between Schoenith's controllers would contravene Schoenith's preferred embodiment that uses Bluetooth connectivity. *See id.*
>
> Fifth, the Schoenith combination fails to disclose that the "pair of confinement structures are separate and distinct from the structural bridge, forming no structural portion of the structural bridge." *See id.* 240. As explained above, the raised side walls are part of the unitary cradle, which Nintendo identified as the structural bridge. *See id.* Therefore, Nintendo's purported confinement structures are not separate and distinct from the structural bridge because they form structural portion of the cradle. *See id.* The Schoenith combination fails to render other limitations in claim 1 that recite "confinement structure," "communication link," "rigid structural bridge," and "passageway" for the reasons explained above. Furthermore, the Schoenith combination fails to render dependent claims 2-4 and 6-7 obvious because it fails to render claim 1 obvious. *See id.* at Q/A 241.

Compl. Br. at 127-29.

> The Staff argues, in part:
>
> . . . Kessler describes a handheld apparatus for communicating control signals to an information processing device, such as a phone, as shown below. . . .
>
> * * *
>
> . . . Kessler, however, fails to satisfy various limitations claimed by the '393 patent. *See* Compl. P.H. Br. at 122-128. For example, Kessler fails to teach the use of confinement structures and a passageway. *Id.* (Singhose testimony cited therein).
>
> * * *
>
> . . . Schoenith discloses a controller for hand-held smart devices, as shown in the figure below. *Id.*
>
> * * *

> . . . Schoenith, however, fails to disclose various limitations claimed by the '393 patent. *See* Compl. P.H. Br. at 122-128. For example, Schoenith fails to teach the use of confinement structures, a rigid structural bridge, and a passageway. *Id.* (Singhose testimony cited therein).
>
> * * *
>
> To the extent that Respondents contend that certain combinations of references and/or knowledge common to one of ordinary skill in the art render one or more of the asserted claims obvious, Prof. Singhose testified that the asserted claims are not rendered obvious by the combinations relied upon by Respondents. Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337. Accordingly, Nintendo has failed to show by clear and convincing evidence that the asserted combinations would have been obvious.
>
> For example, none of the asserted combinations teaches or suggests "a combination" having: (1) "a pair of confinement structures, the pair of confinement structures interacting with the computing device and adjacent at least two opposing sides of the computing device, but not more than three sides of the sides of the computing device;" (2) "each of the pair of confinement structures comprising a communication link;" or (3) "each of the communication links configured for electronic communication with the computing device." Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337.

Staff Br. at 88, 89-90, 92-93.

The administrative law judge finds that Nintendo has shown by clear and convincing evidence that the combination of Schoenith and Kessler renders independent claim 1 of the '393 patent obvious. Nintendo has also shown by clear and convincing evidence that the combination of Schoenith and Kessler renders dependent claims 2-4 and 6-7 obvious.

The administrative law judge finds that one of ordinary skill in the art would have been motivated to combine the disclosures of Schoenith and Kessler. *See* RX-0059C (Cameron DWS) at Q/A 327. A skilled artisan would be motivated to substitute Kessler's adjustable bridge for Schoenith's non-adjustable cradle to have a single-controller that is compatible with different-sized computing devices. *See id.*; RX-1741 at 7-9.

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Gamevice argues that the Schoenith combination fails to disclose "a pair of confinement structures" because both Schoenith and Kessler fail to disclose this limitation. *See* Compl. Br. at 127. However, Schoenith discloses a game controller having a cradle with raised walls for securely holding a smart device along its perimeter. Indeed, as taught by Schoenith the cradle is used with "gaming controls" that connect to opposite sides of the cradle. RX-0015 (Schoenith) at col. 5, lns. 45-47, col. 6, lns. 1-14, col. 7, lns. 14-29, Fig. 3. The cradle has "a depression portion, one or more slots, and one or more raised walls . . . [with] dimensions to accommodate a specific smart device so that the smart device fits snugly and can be securely placed in the depression portion, against the one or more raised walls, or a combination thereof, without being able to change location within the cradle." *Id.* at col. 6, lns. 30-43. Importantly, Schoenith teaches that the raised wall may be "on the cradle's right side, left side, front side, back side, and/or a combination thereof" so as to "provide support along the whole perimeter of the smart device or along certain parts of the perimeter of the smart device." *Id.* at col. 6, lns. 48-58. Those disclosures by Schoenith that the raised walls may extend along the right and left sides of the smart device's perimeter and may accommodate different-sized smart devices satisfies the claim 1 limitation of a "pair of confinement structures . . . adjacent at least two opposing sides of the computing device, but not more than three sides of the sides of the computing device."

Gamevice further argues that the Schoenith combination fails to disclose "a pair of confinement structures comprising a communication link, each of the communication links configured for electronic communication with the computing device." *See* Compl. Br. at 127. However, Schoenith discloses a pair of game control modules which are connected to a smart phone through a communication link so as to improve the experience of playing video games on the smart phone. Schoenith recites:

> The controller may include at least one power connector to provide a wired connection between the smart device and the controller in the right side panel, left side panel, the cradle, or a combination thereof. The at least one power connector may be any connector typically utilized to connect a smart device to a host device, such as a 30-pin dock connector or Apple Lightning® connector.

RX-0015 (Schoenith) at col.7, lns. 42-48. One of ordinary skill in the art would understand that Schoenith's raised walls can each comprise a communication link.

Gamevice further argues that the Schoenith combination fails to disclose "a rigid structural bridge" limitation because Schoenith teaches that it has a large opening in the middle with very slim top and bottom edges, which could render the cradle flexible, depending on the material used. *See* Compl. Br. at 127-28. However, the Schoenith combination would utilize Kessler's adjustable bridge, which is made of rigid sheet steel. RX-0059C (Cameron DWS) at Q/A 147, 341; RX-0116 (Kessler), ¶ 89.

Gamevice further argues that the Schoenith combination fails to disclose the "passageway" limitation because Schoenith's cradle does not have any space that accommodates a communication wire. *See* Compl. Br. at 128. However, Kessler's structural bridge discloses "a space that accommodates a communication wire." Kessler discloses that its control modules are "electrically connected by an electrical connection means" that "is preferably arranged to pass through the interior of the extension mechanism." RX-0116 (Kessler), ¶¶ 26-27. In the combination, Kessler's structural bridge provides a space for the ribbon cables that connect Schoenith's wired connection. The passageway also "promotes electrical communication" because it uses Kessler's structural bridge "as a form of conduit for the electrical connection means" that "not only provides some protection for said electrical connection means [], but also saves space." *Id*.

Gamevice further argues that the Schoenith combination fails to disclose that the "pair of confinement structures are separate and distinct from the structural bridge, forming no structural portion of the structural bridge." *See* Compl. Br. at 129. However, Kessler's structural bridge is separate and distinct from the other components disclosed in Kessler, just as Schoenith's control modules are detachable from its cradle. *See* RX-0116 (Kessler) at Fig. 10; RX-0015 (Schoenith) at Fig. 3. A person of ordinary skill in the art considering the disclosure of both Schoenith and Kessler would bring in this design choice of modularity to the combination of Schoenith and Kessler. Kessler's structural bridge would, therefore, be separate and distinct from Schoenith's confinement structures.

Gamevice does not specifically argue any of the remaining limitations of claim 1, and any of the limitations of dependent claims 2-4 and 6-7. *See* Compl. Br. at 129. Moreover, Schoenith and Kessler render claim 2 obvious because Kessler's rigid structural bridge supports a computing device, which contains electronics. *See* RX-0059C (Cameron DWS) at Q/A 347; RX-0116 (Kessler) at FIG. 12. Schoenith and Kessler render claim 3 obvious because Schoenith's computing device comprises a back with an internal surface and external surface that cooperates with at least two opposing sides of the computing device. *See* RX-0059C (Cameron DWS) at Q/A 337, 348; RX-0115 (Schoenith) at FIG. 3. Schoenith and Kessler render claim 4 obvious because Kessler's rigid structural bridge cooperates with the back of a computing device. *See* RX-0059C (Cameron DWS) at Q/A 349; RX-0116 (Kessler) at FIG. 12. Schoenith and Kessler render claim 6 obvious because Schoenith's control modules pass signals through their communication links and through a wired connection to the computing device, where the signals control images on the display screen. *See* RX-0059C (Cameron DWS) at Q/A 337, 350; RX-0115 (Schoenith) at col. 4, lns. 32-39, col. 7, lns. 34-48. Schoenith and Kessler render claim

7 obvious because computing devices contain communication modules that are supported by Kessler's rigid structural bridge. *See* RX-0059C (Cameron DWS) at Q/A 351; RX-0116 (Kessler) at FIG. 12.

The administrative law judge thus finds that Nintendo has shown by clear and convincing evidence that the combination of Schoenith and Kessler renders claims 1-4 and 6-7 of the '393 patent obvious.

b. Claim 8

Nintendo argues, in part:

> Schoenith and Kessler disclose all limitations of claim 8 when considering Gamevice's construction and interpretation. RX-59C, Q352–54; RPBr.157–58. Gamevice only contests one element: whether Schoenith and Kessler disclose a void (claim 8d). CPBr.125–26; CX-182C, Q242–47. Gamevice's argument is not supported by the specification of the '393 patent and conflicts with its domestic industry analysis.
>
> Gamevice first argues that Kessler does not depict a void because the description for the certain figures in Kessler only state that it is a figure with the metal cover plates of Kessler's bridge removed. CPBr.125; CX-182C, Q243. A POSA would understand that Kessler discloses a void in its bridge when the top and bottom metal plates are removed. RX-59C, Q342–43; RX-116 ¶¶ 88–89. Kessler discloses that its bridge is made of molded plastics with a sheet metal cover plate. RX-116 ¶¶ 88–89. Dr. Cameron testified that it is difficult to make a thick piece of plastic via injection molding, so it is common to add voids for easier manufacturing. Tr. 758:23–759:18. A POSA would recognize that the molded plastic bridge of Kessler contains voids. RX-59C, Q342–43; RX-116.36–38.
>
> Gamevice next argues that Kessler does not disclose a void because any void in the plastic portion of Kessler's bridge would be covered by Kessler's metal plates. CPBr.125–26; CX-182C, Q244. Gamevice's argument conflicts with its domestic industry of analysis where the cover plates on the Razer Kishi's bridge cover the alleged void. CPBr.100. The Kishi's cover plates support the ribbon cable and make the bridge more foldable for storage, similar to the metal plates of Kessler and, therefore, are integral portions of the Kishi's bridge. RX-1824C, Q1012–13, 1025–30; CPBr.125–26. If Kessler does not disclose a void, the Kishi cannot disclose a void.
>
> Finally, Gamevice argues that a POSA would not be motivated to add a void to Kessler's bridge because it would (1) increase production cost, (2) reduce the

strength of the cover plate, and (3) expose the flexible printed circuit. CPBr.126; CX-182C, Q246–47. Gamevice does not dispute that Schoenith discloses a void. CPBr.126; RX-115, 6:51–62. Further, Dr. Singhose acknowledged that a POSA would not be prevented from making a modification if the positive attributes (*e.g.*, providing heat dissipation) outweigh the negative attributes (minor increase in cost or a slight reduction in strength). Tr. 851:10–15; RX-59C, Q137, 342–44. Adding a void to Kessler's bridge, as taught in Schoenith, would not expose the ribbon cable because the ribbon cable in Kessler's bridge does not run through the entire width of the bridge. RX-59C, Q344. A POSA, therefore, would be motivated to incorporate Schoenith's teachings of a void into Kessler's bridge to assist with heat dissipation and to allow access to functionalities on the back of the computing device. RX-59C, Q137, 342–44, 354; RX-115, 6:51–62.

Gamevice does not contest that Schoenith in view of Kessler discloses the remaining limitations of claim 8. CPBr.125–26; RPBr.157–58. Claim 8pre: Schoenith and Kessler's input device, used with the disclosed computing device, is a combination. RX-59C, Q336–37. Claim 8a: Kessler discloses an adjustable bridge with first and second ends associated with Schoenith's control modules. RX-59C, Q341, 353; RX-116.34. Claim 8b: Kessler's bridge is configured for adaptation because it expands and contracts to accommodate the length of the computing device. RX-59C, Q341, 353; RX-59C.A, Q353; RX-116 ¶ 20. Claim 8c: Schoenith discloses a computing device that has a length greater than its width. RX-59C, Q337, 353; RX-115.6.

Resps. Br. at 171-73.

Gamevice argues, in part:

The evidence showed that claim 8 is valid over the Schoenith combination. *See* CX-0182C, Singhose Rebuttal WS Q/A 242. The Schoenith combination fails to disclose the "void" limitation in claim 8 because figure 16 of Kessler, which Nintendo points to for this limitation, is a picture of a solid metal plate without a void. *See id.* at Q/A 243. Figure 18, another figure Nintendo points to for this limitation, does not disclose any void because the specification description for this figure states that it is a picture of Kessler's telescoping bridge without its metal plate covers. *See id.* at Q/A 243. Even if figure 18 is assumed to disclose a void, that void would be covered by a metal cover plate, and therefore, does not satisfy the claimed void. *See id.* Nintendo concedes this point. *See* RPreHB at 158. Nintendo argues that this argument is inconsistent with Gamevice's technical domestic industry analysis for the Kishi because the voids in the Kishi are covered by plates. *See* CX-0182C at Q/A 244. Nintendo is wrong because the plates covering the voids in the Kishi's structural bridge are not part of the structural bridge because they do not perform the functions of the structural bridge, as explained above in the DI analysis of the Kishi. *See id.* On the other hand, the metal plates covering Kessler's telescoping bridge are integral components of the

bridge, and therefore, any holes covered by those metal plates do not satisfy the void limitation. *See id.* Also, the opening in Schoenith's cradle fails to disclose the claimed void because if the cradle is the pair of confinement structures, as Nintendo alleges, then the opening belongs to the confinement structures, not the structural bridge. *See id.* at Q/A 245.

A POSITA would not add a void to Kessler's structural bridge because doing so would reduce the strength of the cover plate 96 and increase the production cost of cutting a void in the metal sheet. *See id.* at Q/A 246. Also, a POSITA would not have had a reasonable expectation of success of adding a void to Kessler's telescoping bridge because doing so would expose the flexible printed circuit to a mechanically active environment, increasing the risk of damage, malfunction, contamination, and hazards to the user. *See id.* at Q/A 246-47.

Compl. Br. at 129-30.

The Staff argues, in part:

. . . Kessler describes a handheld apparatus for communicating control signals to an information processing device, such as a phone, as shown below. . . .

* * *

. . . Kessler, however, fails to satisfy various limitations claimed by the '393 patent. *See* Compl. P.H. Br. at 122-128. For example, Kessler fails to teach the use of confinement structures and a passageway. *Id.* (Singhose testimony cited therein).

* * *

. . . Schoenith discloses a controller for hand-held smart devices, as shown in the figure below. *Id.*

* * *

. . . Schoenith, however, fails to disclose various limitations claimed by the '393 patent. *See* Compl. P.H. Br. at 122-128. For example, Schoenith fails to teach the use of confinement structures, a rigid structural bridge, and a passageway. *Id.* (Singhose testimony cited therein.

* * *

To the extent that Respondents contend that certain combinations of references and/or knowledge common to one of ordinary skill in the art render one or more of the asserted claims obvious, Prof. Singhose testified that the asserted claims are not rendered obvious by the combinations relied upon by Respondents. Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337.

> Accordingly, Nintendo has failed to show by clear and convincing evidence that the asserted combinations would have been obvious.
>
> For example, none of the asserted combinations teaches or suggests "a combination" having: (1) "a pair of confinement structures, the pair of confinement structures interacting with the computing device and adjacent at least two opposing sides of the computing device, but not more than three sides of the sides of the computing device;" (2) "each of the pair of confinement structures comprising a communication link;" or (3) "each of the communication links configured for electronic communication with the computing device." Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337.

Staff Br. at 88, 89-90, 92-93.

The administrative law judge finds that Nintendo has not shown by clear and convincing evidence that the combination of Schoenith and Kessler renders independent claim 8 of the '393 patent obvious.

As an initial matter, "structural bridge" has been construed to mean "a physical apparatus that connects other components."

Claim 8 recites, in part, "the structural bridge provides a void, the void disposed between the first end of the structural bridge and the second end of the structural bridge, the void having right, left, upper, and lower sides, each side of the void communicating with a material of the structural bridge." Nintendo contends that one of ordinary skill in the art would understand that Kessler discloses a void in its bridge when the top and bottom metal plates are removed. *See* Resps. Br. at 172. However, Nintendo has not shown that Kessler's bridge contains a void. *See* CX-0182C (Singhose RWS) at Q/A 243. Dr. Cameron refers to element 86 in Kessler as a void. *See* RX-0059C (Cameron DWS) at Q/A 343. However, the element labeled as 86 in figures 13, 14, and 16 cited by Dr. Cameron is a "slide section" of the telescoping bridge. *See* RX-0115 (Kessler), ¶ 86.

Nintendo further argues that one of ordinary skill in the art would be motivated to incorporate Schoenith's teachings of a void into Kessler's bridge to assist with heat dissipation and to allow access to functionalities on the back of the computing device. *See* Resps. Br. at 172-73. However, introducing this void into Kessler's structural bridge would reduce the strength of the cover plate 96 and increase the production cost of cutting a void in the metal sheet. *See* CX-0182C (Singhose RWS) at Q/A 246-47. Moreover, Kessler discloses that the telescoping bridge comprises a flexible circuit 114 that spans from one controller to another. *See* RX-0115 (Kessler), ¶¶ 93-97. Creating a void in the middle of the telescoping bridge would expose this wire to a mechanically active environment, increasing the risk of damage, malfunction, contamination, and hazards to the user. *See* CX-0182C (Singhose RWS) at Q/A 246-47.

The administrative law judge thus finds that Nintendo has not shown by clear and convincing evidence that the combination of Schoenith and Kessler renders claim 8 of the '393 patent obvious.

c. Claim 12

Nintendo argues, in part:

> Schoenith and Kessler disclose all limitations of claim 12 when considering Gamevice's construction and interpretation. RX-59C, Q356–60; RPBr.158–59. Gamevice does not dispute that Schoenith and Kessler disclose all limitations of claim 12. They only argue that a POSA would not be motivated to incorporate Kessler's bridge into Schoenith's controller. CPBr.126–27; CX-182C, Q248–53. Specific to claim 12, Gamevice argues that a POSA would not be motivated to add Kessler's spring members to Schoenith's controller because (1) Schoenith's cradle already has a shape to fit a computing device, (2) adding springs would make the connection between the cradle and side panels of Schoenith unstable, and (3) the modification would destroy Schoenith's modularity. CPBr.126–27; CX-182C, Q248–53. Gamevice's arguments are contrary to the motivation of a POSA, as also already found by the PTAB, and ignore Nintendo's proposed combination. First, a POSA would be motivated to combine Schoenith and Kessler so that Schoenith's

controller could accommodate computing devices of different sizes, confirmed by the PTAB. Cameron Tr. 728:9–732:10; RX-59C, Q327; RX-1741.7–9. Second, Nintendo's proposed combination does not include Schoenith's entire cradle, but instead includes the raised walls of Schoenith's cradle and Kessler's adjustable bridge. RX-59C, Q327, 336. Gamevice and Dr. Singhose do not provide any support for their conclusory position that the combination would make the connection in Schoenith less secure. CPBr.126–27; CX-182C, Q251. The use of Schoenith's raised walls to confine the computing device and the tension applied by Kessler's spring members would render the controller and the computing device secure. RX-59C, Q327, 336. Further, Kessler's adjustable bridge would be secured to Schoenith's raised walls for added stability. RX-59C, Q327, 336. Third, a POSA would be motivated to incorporate Kessler's adjustable bridge into Schoenith's controller because the positive attributes of the modification would outweigh the negative attributes of the modification, as stated above. Singhose Tr. 851:10–15; RX-59C, Q148, 327, 336, 340–41, 345.

Gamevice does not dispute that Schoenith and Kessler disclose each limitation of claim 12. CPBr.126–27; CX-182C, Q248–53. Claim 12pre: Schoenith and Kessler's input device, when used with a computing device, is a combination. Claim 12a: Schoenith discloses control modules on each side of its controller. RX-59C, Q345, 357; RX-115.6. Claim 12b: Schoenith discloses that each control module includes buttons, joysticks, and a d-pad. RX-59C, Q345, 357; RX-115.6. Claim 12c: Kessler discloses coil springs (restraint with spring member) that are attached to its control modules. RX-116.34–37, ¶ 99. A POSA would be motivated to make this same connection to keep Kessler's bridge in tension with Schoenith's control modules. RX-59C, Q302, 327, 341, 345, 357. Claim 12d: Kessler's adjustable bridge is interposed between Schoenith's control modules. RX-59C, Q327, 341, 345, 357. Claim 12e, f: Kessler's bridge is next to and touching Schoenith's control modules. RX-59C, Q327, 341, 345, 357. Claim 12g: The primary section of Kessler's adjustable bridge contains a cylindrical component (retention mechanism with a boss). RX-59C, Q375; RX-116 ¶ 99. Claim 12h: Kessler's coil springs interact with the boss on its structural bridge to secure the bridge to Schoenith's control modules. RX-59C, Q302, 357; RX-116 ¶ 99.

Resps. Br. at 173-74.

Gamevice argues, in part:

The evidence showed that claim 12 is valid over the Schoenith combination. *See* CX-0182C, Singhose Rebuttal WS Q/A 248. Nintendo does not dispute that the combination fails to disclose the "restraint" and "retention mechanism" limitations. *See id.* at Q/A 249. Instead, Nintendo argues that a POSITA would add Kessler's springs between Schoenith's controllers and cradle to "keep the computing device secure in the controller during gameplay." *See id.* As an initial

matter, the springs 162 in Kessler are not used to "couple" the structural bridge to a control module because it is only used to bias the primary sections of the telescoping bridge to alternate between the open and closed configurations, as explained above for the PhoneJoy combination. *See id*. at Q/A 188.

Moreover, Nintendo's obviousness argument based on the Schoenith combination is flawed for several reasons. First, a POSITA would not make the proposed combination because Schoenith already achieved this alleged motivation through the cradle that has the shape and dimensions of a computing device. *See id.* at Q/A 250. Also, the proposed combination would render Schoenith unsatisfactory for its intended purpose because adding springs between Schoenith's cradle and side panels would make the connection between the cradle and the side panels unstable, negatively affecting user experience during gameplay. *See id.* at Q/A 251; Singhose Tr. 913:5-16. Also, making Nintendo's suggested modification would destroy Schoenith's modular principle of operation because Kessler's springs would connect the cradle and the side panels. *See* CX-0182C at Q/A 252. Similarly, Nintendo argues that a POSITA would add Kessler's "cylindrical component" to Schoenith to satisfy the retention mechanism limitation, but a POSITA would not combine Schoenith and Kessler for the reasons explained above. *See id.* at Q/A 253. Furthermore, the evidence showed that Schoenith lists Kessler in the "References Cited" section of the patent, demonstrating that the inventor of Schoenith was aware of Kessler and its telescoping bridge configuration, but decided against adopting it. *See* RX-115.3; Cameron Tr. 730:11-731:4.

Compl. Br. at 131-32.

The Staff argues, in part:

. . . Kessler describes a handheld apparatus for communicating control signals to an information processing device, such as a phone, as shown below. . . .

* * *

. . . Kessler, however, fails to satisfy various limitations claimed by the '393 patent. *See* Compl. P.H. Br. at 122-128. For example, Kessler fails to teach the use of confinement structures and a passageway. *Id.* (Singhose testimony cited therein).

* * *

. . . Schoenith discloses a controller for hand-held smart devices, as shown in the figure below. *Id.*

* * *

. . . Schoenith, however, fails to disclose various limitations claimed by the '393

> patent. *See* Compl. P.H. Br. at 122-128. For example, Schoenith fails to teach the use of confinement structures, a rigid structural bridge, and a passageway. *Id.* (Singhose testimony cited therein.
>
> * * *
>
> To the extent that Respondents contend that certain combinations of references and/or knowledge common to one of ordinary skill in the art render one or more of the asserted claims obvious, Prof. Singhose testified that the asserted claims are not rendered obvious by the combinations relied upon by Respondents. Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337. Accordingly, Nintendo has failed to show by clear and convincing evidence that the asserted combinations would have been obvious.
>
> For example, none of the asserted combinations teaches or suggests "a combination" having: (1) "a pair of confinement structures, the pair of confinement structures interacting with the computing device and adjacent at least two opposing sides of the computing device, but not more than three sides of the sides of the computing device;" (2) "each of the pair of confinement structures comprising a communication link;" or (3) "each of the communication links configured for electronic communication with the computing device." Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337.

Staff Br. at 88, 89-90, 92-93.

The administrative law judge finds that one of ordinary skill in the art would have been motivated to combine the disclosures of Schoenith and Kessler.

Gamevice argues that one of ordinary skill in the art would not make the proposed combination because Schoenith already achieved this alleged motivation through the cradle that has the shape and dimensions of a computing device. *See* Compl. Br. at 131. However, Schoenith and Kessler are both designed to hold a smart phone or tablet in place and provide external control modules for use in gaming. *See* RX-0059C (Cameron DWS) at Q/A 327. A skilled artisan would have been motivated to improve Schoenith's bridge design with the structural bridge from Kessler which is a more robust adjustable design in that it can accommodate different size smart devices. *See id.*; RX-1741 at 7-9.

Gamevice further argues that adding springs between Schoenith's cradle and side panels would make the connection between the cradle and the side panels unstable, negatively affecting user experience during gameplay. *See* Compl. Br. at 131. However, the use of Schoenith's raised walls to confine the computing device and the tension applied by Kessler's spring members would render the controller and the computing device secure. *See* RX-0059C (Cameron DWS) at Q/A 327, 336.

Gamevice further argues that the combination would destroy Schoenith's modular principle of operation because Kessler's springs would connect the cradle and the side panels. *See* Compl. Br. at 131. However, one of ordinary skill in the art would be motivated to incorporate Kessler's adjustable bridge into Schoenith's controller because the positive attributes of the modification would outweigh the negative attributes of the modification. Singhose Tr. 851; RX-0059C (Cameron DWS) at Q/A 327, 341.

Gamevice does not specifically argue any of the remaining limitations of claim 12. *See* Compl. Br. at 131. Moreover, Schoenith and Kessler's input device, when used with a computing device, is a combination. Schoenith discloses control modules on each side of its controller, and that each control module includes buttons, joysticks, and a d-pad. *See* RX-0059C (Cameron DWS) at Q/A 345, 357; RX-0115 (Schoenith) at FIG. 6. Kessler discloses coil springs (restraint with spring member) that are attached to its control modules. *See* RX-0116 (Kessler), ¶ 99. One of ordinary skill in the art would be motivated to make this same connection to keep Kessler's bridge in tension with Schoenith's control modules, where Kessler's adjustable bridge is interposed between Schoenith's control modules, *see id.* at Q/A 327, 341, 345, 357. Kessler's bridge is next to and touching Schoenith's control modules. *See* RX-0059C (Cameron DWS) at Q/A 302, 327, 341, 345, 357.

The administrative law judge has determined that the term "retention mechanism" is subject to § 112(f), and the relevant function is "securing the structural bridge to the control modules." Moreover, the corresponding structures are: (1) the mechanical arrangement, as shown in Figure 14, using a confinement boss 262 having a fastening detent 264 that interacts with a retention member 266 that is responsive to a catch 268 to secure the structural bridge 258 to the pair of control modules 252 (JX-0001 ('393 patent) at Fig. 14; col. 8, lns. 38-49); (2) the mechanical arrangement, as shown in Figures 27 and 29, using a boss 430 interacting with an adjustment structure 432 to adaptively secure the control module 402 to a structural bridge 422 (JX-0001 ('393 patent) at Figs. 27 and 29; col. 11, ln. 58 – col. 12, ln. 39); and (3) equivalents thereof.

Nintendo contends that the primary section of Kessler's adjustable bridge contains a cylindrical component, which corresponds to the claimed retention mechanism with a boss. *See* Resps. Br. at 174. However, Nintendo only performed the analysis according to Gamevice's construction. *See id.* at 173-74. Nintendo has not shown that Kessler's cylindrical component discloses the mechanical arrangement of Figure 14 or that of Figures 27 and 29, which are required under the claim construction adopted herein. Hence, Nintendo has not shown that Kessler discloses a corresponding structure of the claimed "retention mechanism."

The administrative law judge thus finds that Nintendo has not shown by clear and convincing evidence that the combination of Schoenith and Kessler renders claim 12 of the '393 patent obvious.

d. Claims 17-18

Nintendo argues, in part:

> Schoenith and Kessler disclose all limitations of claims 16–18 when

considering Gamevice's construction and interpretation. RX-59C, Q361–65; RX-59C.A, Q363; RPBr.159–60. Gamevice does not contest that Schoenith and Kessler disclose all limitations of claim 16. CPBr.126; CX-182C, Q254. Claim 16pre: Schoenith and Kessler's input device, when used with the disclosed computing device, is a combination. RX-59C, Q336–37. Claim 16a: Schoenith discloses control modules and confinement structures, and Kessler discloses a structural bridge. Kessler's coil springs (retention mechanism) secure Schoenith's control modules to Kessler's bridge. RX-59C, Q338, 341, 354, 363, 366–67; RX-116 ¶ 99. Claim 16b: Schoenith's computing device provides a CPU and plurality of sides. RX-59C, Q337, 363. Claim 16c: The sides of the computing device cooperate with the electronic display screen. RX-59C, Q337, 363. Claim 16d: Schoenith's control modules control movement of a virtual object displayed on the computing device. RX-59C, Q337, 350, 363. Claim 16e: Schoenith's computing device provides an electronic game. RX-59C, Q337, 350, 363; RX-115, 2:60–3:5. Claim 16f: Schoenith's control modules are accommodated by the controller. RX-59C, Q345, 363.

Gamevice only contests that Schoenith and Kessler do not render claims 17–18 obvious for the same reasons as claim 1. CPBr.127; CX-182C, Q254–56. For the reasons discussed above for claim 1 Schoenith and Kessler disclose all limitations that Gamevice disputes, as well as all undisputed limitations of claim 1 and limitations dependent claims 17 ad 18. RX-59C, Q336–45, 364. For claim 17, Schoenith's raised walls are in pressing contact with the top and bottom of the computing device due to the tension provided by Kessler's structural bridge and spring members. RX-59C, Q327, 338, 341, 364; RX-59C.A, Q364. For claim 18, Schoenith's control modules include buttons, joy sticks, and a d-pad that are adjacent to the top and bottom sides of the computing device, and control movement of a virtual object on the computing device's display screen. RX-59C, Q337, 345, 350, 365; RX-115, 2:60–3:5.

Resps. Br. at 175.

Gamevice argues, in part:

The evidence showed that claim 17 is valid over the Schoenith combination. *See* CX-0182C at Q/A 254. Many of the limitations in claim 17 overlap with the limitations in claim 1, such as "confinement structures," "communication links," "rigid structural bridge," and "passageway." Therefore, the Schoenith combination fails to render claim 17 obvious for the same reasons provided above for claim 1. *See id.* at Q/A 255.

Claim 18 depends from claim 17, and therefore, the Schoenith combination fails to render claim 18 obvious for the same reasons it cannot render claim 17 obvious. *See id.* at Q/A 256. Claim 18 further recites "each electronic game control module in electronic communication with the communication link of its corresponding confinement structure," and the Schoenith combination fails to

> disclose the "communication link of its corresponding confinement structure" for the reasons explained above in connection with claim 1. *See id*.

Compl. Br. at 132.

> The Staff argues, in part:
>
> . . . Kessler describes a handheld apparatus for communicating control signals to an information processing device, such as a phone, as shown below. . . .
>
> * * *
>
> . . . Kessler, however, fails to satisfy various limitations claimed by the '393 patent. *See* Compl. P.H. Br. at 122-128. For example, Kessler fails to teach the use of confinement structures and a passageway. *Id.* (Singhose testimony cited therein).
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> * * *
>
> . . . Schoenith discloses a controller for hand-held smart devices, as shown in the figure below. *Id.*
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> * * *
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> . . . Schoenith, however, fails to disclose various limitations claimed by the '393 patent. *See* Compl. P.H. Br. at 122-128. For example, Schoenith fails to teach the use of confinement structures, a rigid structural bridge, and a passageway. *Id.* (Singhose testimony cited therein.
>
> * * *
>
> To the extent that Respondents contend that certain combinations of references and/or knowledge common to one of ordinary skill in the art render one or more of the asserted claims obvious, Prof. Singhose testified that the asserted claims are not rendered obvious by the combinations relied upon by Respondents. Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337. Accordingly, Nintendo has failed to show by clear and convincing evidence that the asserted combinations would have been obvious.
>
> For example, none of the asserted combinations teaches or suggests "a combination" having: (1) "a pair of confinement structures, the pair of confinement structures interacting with the computing device and adjacent at least two opposing sides of the computing device, but not more than three sides of the sides of the computing device;" (2) "each of the pair of confinement structures comprising a communication link;" or (3) "each of the communication links configured for electronic communication with the computing device." Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337.

Staff Br. at 88, 89-90, 92-93.

Gamevice argues that the Schoenith combination fails to render claims 17 and 18 obvious for the same reasons provided above for claim 1. *See* Compl. Br. at 132. However, as noted above, the Schoenith combination renders claim 1 obvious.

Moreover, the Schoenith combination renders claim 17 obvious because Schoenith's raised walls are in pressing contact with the top and bottom of the computing device due to the tension provided by Kessler's structural bridge and spring members. *See* RX-0059C (Cameron DWS) at Q/A 327, 338, 341, 364.

Regarding claim 18, as ruled above, the administrative law judge has determined that (1) the term "second means for controlling movement of the virtual object displayed on said electronic display" is subject to § 112(f); (2) the relevant function is "controlling a movement of a virtual object displayed on said electronic display screen of said computing device"; and (3) there is no corresponding structure, rendering claims 16, 18, 20 and 22 indefinite.

Nintendo argues that under Gamevice's proposed construction of claim 18, it would be obvious. *See* Resps. Br. at 175. Indeed, under that proposal, which was not adopted herein, the term "second means for controlling movement of the virtual object displayed on said electronic display" is construed so that the second means refers to a pair of control modules providing a plurality of instructional input devices (*e.g.*, joysticks, keys, button, triggers, switches), where each of the pair of control modules is in electronic communication with the communication link of its corresponding confinement structure and is configured for electronic communication with the central processing unit, where the instructional input devices in conjunction with the central processing unit control movement of the virtual object displayed on the electronic display screen. Then, Nintendo has shown by clear and convincing evidence that the Schoenith combination

renders claim 18 obvious because Schoenith's control modules include buttons, joy sticks, and a d-pad that are adjacent to the top and bottom sides of the computing device, and control movement of a virtual object on the computing device's display screen. *See* RX-0059C (Cameron DWS) at Q/A 337, 345, 350, 365; RX-0115 (Schoenith) at col. 2, ln. 60 – col. 3, ln. 5.

The administrative law judge thus finds that Nintendo has shown by clear and convincing evidence that the combination of Schoenith and Kessler renders claim 17 of the '393 patent obvious.

e. Claims 19-20

Nintendo argues, in part:

> Schoenith and Kessler disclose all limitations of dependent claims 19–20 when considering Gamevice's construction and interpretation. RX-59C, Q366–68; RPBr.160. Gamevice only contests whether Schoenith in view of Kessler discloses a void, relying on its arguments for claim 8. CPBr.127–28. For the reasons explained above, Schoenith in view of Kessler discloses a void or it would be obvious to a POSA to add a void. RX-59C, Q137, 342–44, 354; RX-115, 6:51–62.
>
> Gamevice mistakenly argues that Nintendo points to the cylindrical component from Kessler as disclosing the retention mechanism. CPBr.127–28; CX-182C, Q258. This is incorrect. Dr. Cameron clearly identifies the spring of Kessler as the retention mechanism, which connects Kessler's control modules and bridge. RX-116 ¶¶ 99–100; RX-59C, Q367. A POSA would be motivated to include this spring attachment in the combination of Schoenith and Kessler. RX-59C, Q327, 363, 367; RX-116.34. For the reasons discussed above for claim 1, Schoenith and Kessler disclose each remaining, undisputed limitation of claim 19. Gamevice does not raise any independent argument rebutting that Schoenith and Kessler disclose all limitations of claim 20. CPBr.128; CX-182C, Q259. For the reasons discussed above for claim 19 and claim 1, Schoenith and Kessler disclose each undisputed limitation of claim 20. For claim 20, Schoenith's control modules are adjacent the top and bottom sides of the computing device and are in pressing contact with the computing device due to the tension of Kessler's bridge. RX-59C, Q327, 341, 345, 367.

Resps. Br. at 176.

Gamevice argues, in part:

> The evidence showed that claim 19 is valid over the Schoenith combination.

> *See* CX-0182C, Singhose Rebuttal WS Q/A 257. First, the Schoenith combination fails to disclose the "retention mechanism" limitation. *See id.* at Q/A 258. Nintendo does not dispute that the Schoenith combination fails to disclose this limitation. Instead, Nintendo argues that a POSITA would combine the "cylindrical component" in Kessler and Schoenith to arrive at this limitation. *See id.* at Q/A 258. But this "cylindrical component" is provided on the structural bridge, not on the electronic game control module, as the claim requires, and therefore, fails to disclose the retention mechanism recited in claim 19. *See id*. Second, the Schoenith combination fails to disclose the "void" limitation for the reasons explained above for claim 8. Moreover, Nintendo's purported "retention mechanism" from Kessler does not "secure" the telescoping bridge to a control module because the springs 162 and the "cylindrical component" are only involved in allowing the Kessler controller to alternate between its open and closed configurations, as explained above for the PhoneJoy combination. *See id*. at Q/A 188.
>
> The evidence showed that claim 20 depends from claim 19, so the Schoenith combination fails to render claim 20 obvious for the same reasons it cannot render claim 19 obvious, as explained above. *See id.* at Q/A 259. Claim 20 also requires "a communication link," which Schoenith or Kessler fails to disclose, as explained above for claim 1.

Compl. Br. at 132-33.

> The Staff argues, in part:
>
> . . . Kessler describes a handheld apparatus for communicating control signals to an information processing device, such as a phone, as shown below. . . .
>
> * * *
>
> . . . Kessler, however, fails to satisfy various limitations claimed by the '393 patent. *See* Compl. P.H. Br. at 122-128. For example, Kessler fails to teach the use of confinement structures and a passageway. *Id.* (Singhose testimony cited therein).
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> . . . Schoenith discloses a controller for hand-held smart devices, as shown in the figure below. *Id.*
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> . . . Schoenith, however, fails to disclose various limitations claimed by the '393 patent. *See* Compl. P.H. Br. at 122-128. For example, Schoenith fails to teach the use of confinement structures, a rigid structural bridge, and a passageway. *Id.* (Singhose testimony cited therein.

* * *

> To the extent that Respondents contend that certain combinations of references and/or knowledge common to one of ordinary skill in the art render one or more of the asserted claims obvious, Prof. Singhose testified that the asserted claims are not rendered obvious by the combinations relied upon by Respondents. Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337. Accordingly, Nintendo has failed to show by clear and convincing evidence that the asserted combinations would have been obvious.
>
> For example, none of the asserted combinations teaches or suggests "a combination" having: (1) "a pair of confinement structures, the pair of confinement structures interacting with the computing device and adjacent at least two opposing sides of the computing device, but not more than three sides of the sides of the computing device;" (2) "each of the pair of confinement structures comprising a communication link;" or (3) "each of the communication links configured for electronic communication with the computing device." Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337.

Staff Br. at 88, 89-90, 92-93.

The administrative law judge finds that Nintendo has not shown by clear and convincing evidence that the combination of Schoenith and Kessler renders claims 19 or 20 of the '393 patent obvious.

Claim 19 recites, in part, "a retention mechanism communicating with the structural bridge, and wherein the retention mechanism secures the structural bridge to the first of the pair of control modules." As ruled above, the term "retention mechanism" is subject to § 112(f), and the relevant function is "securing the structural bridge to the control modules." Moreover, the corresponding structures are: (1) the mechanical arrangement, as shown in Figure 14, using a confinement boss 262 having a fastening detent 264 that interacts with a retention member 266 that is responsive to a catch 268 to secure the structural bridge 258 to the pair of control modules 252 (JX-0001 ('393 patent) at Fig. 14; col. 8, lns. 38-49); (2) the mechanical arrangement, as shown in Figures 27 and 29, using a boss 430 interacting with an adjustment structure 432 to

adaptively secure the control module 402 to a structural bridge 422 (JX-0001 ('393 patent) at Figs. 27 and 29; col. 11, ln. 58 – col. 12, ln. 39); and (3) equivalents thereof.

Nintendo contends that the primary section of Kessler's adjustable bridge contains a cylindrical component, which corresponds to the claimed retention mechanism with a boss. *See* Resps. Br. at 174. However, Nintendo has not shown that Kessler's cylindrical component discloses the mechanical arrangement of Figure 14 or that of Figures 27 and 29. Hence, Nintendo has not shown that Kessler discloses a corresponding structure of the claimed "retention mechanism."

Claim 19 further recites, in part, "the structural bridge provides a void in the mid-section of the structural bridge, the void having right, left, upper, and lower sides, each side communicating with a material of the structural bridge." As ruled above, Nintendo has not shown that Kessler's bridge contains a void. *See* CX-0182C (Singhose RWS) at Q/A 243. Moreover, Nintendo has not shown that one of ordinary skill in the art would be motivated to incorporate Schoenith's teachings of a void into Kessler's bridge. *See* CX-0182C (Singhose RWS) at Q/A 246-47. Kessler discourages creating a void in the structural bridge because doing so would reduce the strength and rigidity of the cover plate 96 and increase the cost of production of cutting a void in the metal sheet. Kessler specifically teaches that the metal cover plate 96 is preferably made with sheet metal, such as sheet steel due to its "high strength" and relatively low cost. *See* RX-0116 (Kessler), ¶ 89.

Claim 20 depends on claim 19. As Nintendo has not shown that the combination of Schoenith and Kessler renders claim 19 obvious, Nintendo has also failed to show that the combination of Schoenith and Kessler renders claim 20 obvious.

Regarding claim 20, as ruled above, the administrative law judge has determined that (1) the term "second means for controlling a movement of a virtual object displayed on said electronic display" is subject to § 112(f); (2) the relevant function is "controlling a movement of a virtual object displayed on said electronic display screen of said computing device"; and (3) there is no corresponding structure, rendering claims 16, 18, 20 and 22 indefinite.

However, if the term "second means for controlling a movement of a virtual object displayed on said electronic display" is construed according to Gamevice's construction, where the second means refers to a pair of control modules providing a plurality of instructional input devices (*e.g.*, joysticks, keys, button, triggers, switches), where each of the pair of control modules is in electronic communication with the communication link of its corresponding confinement structure and is configured for electronic communication with the central processing unit, where the instructional input devices in conjunction with the central processing unit control movement of the virtual object displayed on the electronic display screen, then Nintendo has shown that the combination of Schoenith and Kessler discloses a communication link facilitating communication between the pair of control modules and the central processing unit, each of the pair of control modules providing instructional input devices, wherein said instructional input devices are adjacent each of the at least two opposing sides of the computing device. Schoenith's control modules are adjacent the top and bottom sides of the computing device and are in pressing contact with the computing device. *See* RX-0059C (Cameron DWS) at Q/A 327, 341, 345, 367.

The administrative law judge thus finds that Nintendo has not shown by clear and convincing evidence that the combination of Schoenith and Kessler renders claims 19 or 20 of the '393 patent obvious.

6. Obviousness – Willner in View of Park

U.S. Patent Publication No. 2001/0045938 ("Willner") was published on November 29, 2001. RX-0112 (Willner). Korean Patent Publication No. KR 10-2011-0116892 ("Park") was published on October 26, 2011. RX-0134 (Park). Willner and Park both qualify as prior art to the '393 patent.

a. Claims 1-4 and 6-7

Nintendo argues, in part:

> Willner and Park disclose all limitations of claim 1 when considering Gamevice's construction and interpretation. RX-59C, Q382–92; RDX-1.72–78. Gamevice argues that Willner and Park fail to disclose four elements: (1) claim 1b a pair of confinement structures; (2) claim 1e a rigid structural bridge; (3) claim 1f a passageway; and (4) claim 1k control modules that are separate and distinct from each confinement structure. CPBr.128–30. Gamevice's arguments ignore the disclosure of Willner and Park, disregard Dr. Cameron's analysis, and import a requirement that is not supported by any disclosure in the '393 patent.
>
> First, Gamevice argues that Willner's connectors do not interact with the computing device and therefore do not disclose a pair of confinement structures (claim 1b). CPRBr.128; CX-182C, Q280–81. But Gamevice's ignores a number of elements that Dr. Cameron identified as confinement structures, including the left and right side walls of Willner's adaptor. RX-59C, Q384. Gamevice does not meaningfully dispute that Willner's sidewalls and their corresponding connectors—which collectively constitute the confinement structures as identified by Dr. Cameron—are adjacent to and confine opposite sides of the computing device, and interact with the computing device. RX-59C, Q382, 384, 392; RX-112 ¶ 50; CPBr.128; CX-182C, Q280. Willner's sidewalls and corresponding connectors disclose the recited confinement structures that interact with the computing device as recited in claim 1b.
>
> Second, Gamevice argues that Park's bridge is not rigid (claim 1e) because it is telescoping. CPBr.128–29; CX-182C, Q283–85. Gamevice's argument is inconsistent with the '393 patent and contradicted by the PTAB, which held that the combination of Willner and Park rendered obvious claims 9 and 10 of the '119 patent that recite a rigid structural bridge. RX-1732.22; RX-219, 10:56–59; JX-1, 9:8–15, 11:51–57, 15:51–54. Dr. Cameron identified Park's structural bridge, comprising panels 30 and 40, as satisfying this limitation. RX-59C, Q387, 391–92. A POSA would understand that Park's structural bridge is rigid because it supports the computing device. A POSA would understand that the material of the bridge can render it rigid regardless of whether the bridge is telescoping. RX-59C, Q147,

387, 392; RX-134 ¶¶ 13, 40. Dr. Singhose's argument that a telescoping structure cannot be rigid is inconsistent with the disclosure in the '393 patent. Tr. 887:13–15. The only use of "rigid" in the '393 patent pertains to the material used to make the structural bridge, which is wholly unrelated to Dr. Singhose's argument. JX-1, 9:8–15, 11:51–57, 15:51–54; Tr. 887:13–15. Park's bridge is rigid, as understood by a POSA.

Third, Gamevice argues that Park fails to disclose a passageway (claim 1f) because it does not disclose a wire inside its telescoping bridge. CPBr.129; CX-182C, Q286. Park clearly discloses that its electrical connecting cable connects the first and second control modules and that it "extends along a certain portion of the inside of the bridge." RX-134 ¶ 36; RX-59C, Q387, 392. The PTAB relied on this exact disclosure to hold that Park disclosed a conduit that physically protected the communication wire. RX-1732.19–20. Park discloses a passageway.

Fourth, Gamevice argues that Willner does not disclose separate and distinct control modules (claim 1k) because the connectors are blended into the control module. CPBr.129–30; CX-182C, Q288–89. Gamevice ignores Dr. Cameron's testimony that Willner's sidewalls of adaptor 212, which include connecting portions 214 and 216, disclose the confinement structures while Willner's control modules 102 and 104, which include connectors 178 and 180, disclose the pair of control modules. RX-112 ¶¶ 50–51; RX-59C, Q384–85, 390. Willner describes how control modules 102 and 104 are separate and distinct from adaptor 210, which Gamevice also admitted when it notes Willner's modularity. RX-59C, Q385, 392; RX-112 ¶¶ 50–51; Cameron Tr. 713:21–714:8; CPBr.129. Willner's control modules are, therefore, separate and distinct from the sidewalls of its adaptor.

Gamevice does not contest that the combination of Willner and Park discloses the remaining limitations of claim 1. RPBr.162–63; RX-59C, Q382–92. Claim 1pre: The input device of Willner and Park, used with a computing device, is a combination. RX-59C, Q382–83. Claim 1a: Park discloses that its controller is compatible with a computing device. RX-59C, Q383, 392; RX-134 ¶ 1. Claim 1c: Willner discloses that its sidewalls confine the computing device on at least two but not more than three sides of the computing device. RX-59C, Q384, 392; RX-112.7; RX-1732.15–16 (PTAB final written decision). Claim 1d: Willner discloses that its controller communicates with the computing device through a hard wire connection via connectors 214' and 216' of its sidewalls. RX-59C, Q386, 392; RX-112 ¶¶ 50–51. Claim 1g: A POSA would understand that Park's passageway would facilitate the electrical communication between the connectors of Willner's sidewalls. RX-59C, Q387, 392; RX-134 ¶ 36. Claim 1h: Willner discloses a pair of control modules. RX-59C, Q390, 392; RX-112.7. Claim 1i: Willner discloses that each control module is secured to and interacts with Willner's sidewalls via connectors 214', 216', 178, and 180. RX-59C, Q390, 392; RX-112 ¶¶ 50–51. Claim 1j: Willner's control modules are in electronic communication with each connector, communicating with each other and the computing device. RX-59C,

Q390, 392. Claim 1l: Park's structural bridge is separate and distinct from Park's other components; Willner's sidewalls would be separate and distinct from Park's structural bridge. RX-59C, Q387, 392.

* * *

Gamevice does not contest that the combination of Willner and Park discloses dependent claims 2–4 and 6–7, but instead relies solely on its arguments concerning claim 1. CPBr.130; CX-182C, Q290. The combination of Willner and Park renders obvious claims 2–4 and 6–7. RX-59C, Q393–97. Willner and Park render claim 2 obvious because Park's rigid structural bridge supports the computing device, where the computing device contains electronics. RX-59C, Q393; RX-134 ¶ 40. Willner and Park render claim 3 obvious because Park's computing device comprises a back with an internal surface and external surface that cooperates with at least two opposing sides. RX-59C, Q383, 394; RX-134.12. Willner and Park render claim 4 obvious because Park's rigid structural bridge cooperates with the back of the computing device. RX-59C, Q395; RX-134.12. Willner and Park render claim 6 obvious because Willner's control modules generate signals representing game control codes that are converted into a format understood by a computing device and control movement of objects on the display screen. RX-59C, Q383, 396; RX-112 ¶¶ 47–49. Willner and Park render claim 7 obvious because Park's structural bridge supports communication modules within a computing device. RX-59C, Q383, 397; RX-134 ¶ 40.

Resps. Br. at 157-60.

Gamevice argues, in part:

The evidence showed that claim 1 is valid over the Willner combination. *See id.* at Q/A 279. First, the Willner combination fails to disclose "a pair of confinement structures." The connecting portions in Willner fail to satisfy this limitation because they only interact with the adaptor and do not interact with the computing device, as the claim requires. *See id.* at Q/A 280; CDX-0003C.0014. The computing device slides into the adaptor and never interacts with the connecting portions. Also, Nintendo failed to show that the connecting portions satisfy the parties' constructions of the term in this investigation, which is why Nintendo cannot rely on the PTAB's decision in the '119 IPR. *See* CX-0182C at Q/A 281. Moreover, to the extent Nintendo is relying on the side portions of the adaptor, Nintendo failed to explain why or how a POSITA would cut off portions of the adaptor that are molded into one integrated piece (allegedly with wires in them, according to Nintendo) and add them to Park's bridge structure.

Second, the Willner combination fails to disclose "a rigid structural bridge." *See id.* at Q/A 283. Nothing in Willner discloses that the adaptor is rigid. *See id*. Also, the bridge disclosed in Park is a telescoping bridge with two panels, rendering it non-rigid. *See id.* at Q/A 285; CDX-0003C.0015. A POSITA would not have

modified Willner's non-adjustable adaptor with Park's telescoping bridge to accommodate computing devices of different sizes. *See* CX-0182C at Q/A 284. Willner already addressed the alleged motivation because it relies on modularity, in which the adaptor can be replaced with another one of a different size to accommodate computing devices of different sizes. *See id.* at Q/A 272. Also, combining Willner and Park would render both devices unsatisfactory for their intended purpose because Willner requires the adaptor to communicate with the computing device but Nintendo's combination does not have any adaptor or any component that performs a similar functionality. *See id.* at Q/A 273. Modifying Willner or Park to make this combination work would require significantly changing the principle of operation of Willner or Park. *See id.* at Q/A 274. Also, Nintendo's combination of Willner and Park would not sufficiently secure the computing device in place because it is missing the cradle portion of Willner's adaptor and Park's cushioning pad or connecting assembly that are required to achieve that function. *See id.*

Third, the Willner combination fails to disclose the "passageway" limitation. *See id.* at Q/A 283. Nintendo does not dispute that the Willner combination fails to disclose this limitation. *See id.* Instead, Nintendo argues that a POSITA would have combined Willner and Park to arrive at this limitation, but a POSITA would not have done so for the reasons explained above. *See id.* Furthermore, the Willner combination fails to disclose any passageway under the parties' construction of "passageway." *See id.* The parties' constructions require the passageway to accommodate or hold a communication wire, but neither Willner nor Park discloses any communication wire in the purported structural bridge. *See id.* at Q/A 285. Indeed, a POSITA would not put a communication wire in Park's telescoping bridge because the communication wire would get caught between the panels of the telescoping bridge. *See id.* at Q/A 286-87.

Fourth, the Willner combination fails to disclose that "each electronic game control module is a separate and distinct structure from each of their corresponding confinement structures, forming no structural portion of their corresponding confinement structures." *See id.* at Q/A 289. The connecting portions of Willner are not separate and distinct from the housing (i.e., Willner's electronic game control modules) because the figures in Willner show that the connecting portions blend into and form structural portion of the housing (i.e., electronic game control modules). *See id.*; CDX-0003C.0016. Moreover, Park does not disclose that its bridge is separate and distinct from the control modules, so Nintendo failed to establish that this limitation is disclosed in Park by clear and convincing evidence. The Willner combination fails to render other limitations in claim 1 that recite "confinement structure," "rigid structural bridge," and "passageway." *See* CX-0182C at Q/A 282, 287. Furthermore, the Willner combination fails to render dependent claims 2-4 and 6-7 obvious because it fails to render claim 1 obvious. *See id.* at Q/A 290.

Compl. Br. at 133-35.

The Staff argues, in part:

> Willner discloses a hand grippable combined keyboard and game controller system that provides a docking port for coupling to a palm/tablet sized computing device as shown below. *Id.*
>
> * * *
>
> . . . Willner fails to disclose various limitations claimed by the '393 patent, including, for example, confinement structures, interaction with a computing device, and a rigid structural bridge. *See* Compl. P.H. Br. at 128-131.
>
> * * *
>
> Park discloses a game controller for a mobile phone device as shown below. *Id.*
>
> * * *
>
> . . . Park, however, fails to disclose various limitations claimed by the '393 patent. *See* Compl. P.H. Br. at 128-131. For example, Park fails to disclose a "rigid structural bridge." *Id.* Park also fails to disclose a "passageway," as claimed by the '393 patent. *Id.* (Singhose testimony cited therein).
>
> * * *
>
> To the extent that Respondents contend that certain combinations of references and/or knowledge common to one of ordinary skill in the art render one or more of the asserted claims obvious, Prof. Singhose testified that the asserted claims are not rendered obvious by the combinations relied upon by Respondents. Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337. Accordingly, Nintendo has failed to show by clear and convincing evidence that the asserted combinations would have been obvious.
>
> For example, none of the asserted combinations teaches or suggests "a combination" having: (1) "a pair of confinement structures, the pair of confinement structures interacting with the computing device and adjacent at least two opposing sides of the computing device, but not more than three sides of the sides of the computing device;" (2) "each of the pair of confinement structures comprising a communication link;" or (3) "each of the communication links configured for electronic communication with the computing device." Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337.

Staff Br. at 90-93.

The administrative law judge finds that Nintendo has shown by clear and convincing evidence that the combination of Willner and Park renders independent claim 1 of the '393 patent obvious. Nintendo has also shown by clear and convincing evidence that the combination of Willner and Park renders dependent claims 2-4 and 6-7 obvious.

The administrative law judge finds that one of ordinary skill in the art would have been motivated to combine the disclosures of Willner and Park. *See* RX-0059C (Cameron DWS) at Q/A 378. A skilled artisan would be motivated to improve Willner's bridge design with an adjustable bridge taught by Park so that the controller could accommodate different-sized computing devices. *See id.*; RX-1732 at 13.

Gamevice argues that the Willner combination fails to disclose "a pair of confinement structures" because they only interact with the adaptor and do not interact with the computing device. *See* Compl. Br. at 133. However, Willner's sidewalls and their corresponding connectors are adjacent to and confine opposite sides of the computing device, and interact with the computing device. *See* RX-0059C (Cameron DWS) at Q/A 382, 384, 392; RX-0112 (Willner), ¶ 50.

Gamevice further argues that the Willner combination fails to disclose "a rigid structural bridge." *See* Compl. Br. at 134. However, Dr. Singhose's argument that a telescoping structure cannot be rigid is inconsistent with the understanding of one of ordinary skill in the art. *See* CX-0182C (Singhose RWS) at Q/A 283, 285. Dr. Cameron identified Park's structural bridge, comprising panels 30 and 40, as satisfying this limitation. *See* RX-0059C (Cameron DWS) at Q/A 387, 391-92. One of ordinary skill in the art would understand that Park's structural bridge is rigid because it supports the computing device, and that the material of the bridge can render it rigid regardless of whether the bridge is telescoping. *See id.* at Q/A 147, 387, 392. The

administrative law judge notes that the PTAB found that the combination of Willner and Park rendered obvious claims 9 and 10 of the '119 patent that recite a rigid structural bridge. *See* RX-1732 at 22.

Gamevice further argues that Park fails to disclose a passageway because it does not disclose a wire inside its telescoping bridge. *See* Compl. Br. at 134-35. As ruled above, "passageway" is construed to mean "a space that accommodates a communication wire." However, Park teaches that its first and second bodies "are electrically connected by a connecting cable" that "extends along a certain portion of the inside of the bridge." RX-0134 (Park), ¶ 8, 13, 36; RX-1732 at 19-20; RX-0059C (Cameron DWS) at Q/A 387, 392.

Gamevice further argues that Willner does not disclose that "each electronic game control module is a separate and distinct structure from each of their corresponding confinement structures, forming no structural portion of their corresponding confinement structures." *See* Compl. Br. 135. However, Willner's control modules are detachable from the sidewalls of its adaptor via connectors on each control module, as shown in FIG. 4 of Willner, reproduced below.

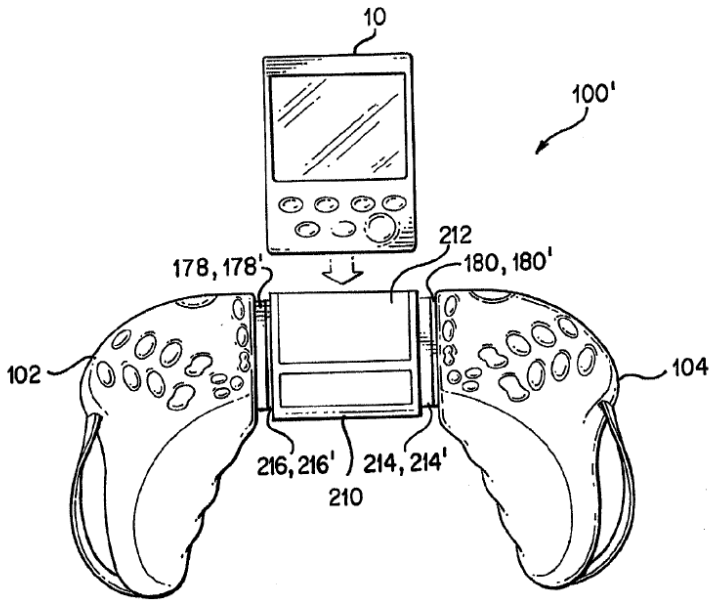


FIG. 4 of RX-0112 (Willner)

Willner's sidewalls of adaptor 212, which include connecting portions 214 and 216, disclose the confinement structures while Willner's control modules 102 and 104, which include connectors 178 and 180, disclose the pair of control modules. Hence, Willner's control modules are separate and distinct from the sidewalls of its adaptor. Moreover, Willner discloses that its controller communicates with the computing device through a hard wire connection via connectors 214' and 216' of its sidewalls. *See* RX-0059C (Cameron DWS) at Q/A 386, 392; RX-0112 (Willner), ¶¶ 50-51.

Gamevice does not specifically argue regarding the remaining limitations of claim 1, and any of the limitations of dependent claims 2-4 and 6-7. *See* Compl. Br. at 133-35. Moreover, Willner and Park render claim 2 obvious because Park's rigid structural bridge supports the computing device, where the computing device contains electronics. *See* RX-0059C (Cameron DWS) at Q/A 393; RX-0134 (Park), ¶ 40. Willner and Park render claim 3 obvious because Park's computing device comprises a back with an internal surface and external surface that

cooperates with at least two opposing sides. *See* RX-0059C (Cameron DWS) at Q/A 383, 394; RX-0134 (Park) at FIG. 3. Willner and Park render claim 4 obvious because Park's rigid structural bridge cooperates with the back of the computing device. *See* RX-0059C (Cameron DWS) at Q/A 395; RX-0134 (Park) at FIG. 3. Willner and Park render claim 6 obvious because Willner's control modules generate signals representing game control codes that are converted into a format understood by a computing device and control movement of objects on the display screen. *See* RX-0059C (Cameron DWS) at Q/A 383, 396; RX-0112 (Willner), ¶¶ 47-49. Willner and Park render claim 7 obvious because Park's structural bridge supports communication modules within a computing device. *See* RX-0059C (Cameron DWS) at Q/A 383, 397; RX-0134 (Park), ¶ 40.

The administrative law judge thus finds that Nintendo has shown by clear and convincing evidence that the combination of Willner and Park renders claims 1-4 and 6-7 of the '393 patent obvious.

b. Claims 17-18

Nintendo argues, in part:

> Gamevice does not contest that Willner and Park disclose all limitations of claims 16–18 when considering Gamevice's construction and interpretation. RPBr.164–65; RX-59C, Q401–5; CPBr.131; CX-182C, Q294–97. Claim 16pre: Willner and Park's input device, when used with the disclosed computing device, is a combination. RX-59C, Q382–83. Claim 16a: Willner discloses control modules and confinement structures, and Park discloses a structural bridge. RX-59C, Q384, 387, 403. Claim 16b: Park's computing device provides a CPU and plurality of sides. RX-59C, Q383, 403. Claim 16c: The sides of Park's computing device cooperate with the electronic display screen. RX-59C, Q383, 403. Claim 16d: Willner's control modules control movement of a virtual object displayed on the computing device. RX-59C, Q396, 403; RX-112 ¶¶ 47–49. Claim 16e: The CPU of Park's computing device provides an electronic game. RX-59C, Q383, 396, 403. Claim 16f: Willner's control modules are accommodated by the controller. RX-59C, Q390, 403.

> Gamevice only argues that Willner and Park do not invalidate claims 17 and 18 for the same reasons it puts forth for claim 1. CPBr.131; CX-182C, Q294–97. For the reasons discussed above for claim 1, Willner and Park disclose the limitations Gamevice disputes, as well as all remaining undisputed limitations of Claim 1 and limitations of dependent claims 17 and 18. For claim 17 Willner's sidewalls are in pressing contact with the top and bottom of Park's computing device. RX-59C, Q384, 404; RX-112 ¶ 50. For claim 18, Willner's control modules include buttons, joysticks, and a d-pad adjacent to the top and bottom sides of Park's computing device and control movement of a virtual object on the computing device's display screen. RX-59C, Q390, 396, 405; RX-112 ¶¶ 47–49.

Resps. Br. at 160-61.

Gamevice argues, in part:

> The evidence showed that claim 17 is valid over the Willner and Park combination. *See* CX-0182C, Singhose Rebuttal WS Q/A 294. Many of the limitations in claim 17 overlap with the limitations in claim 1, such as "confinement structures," "communication links," "rigid structural bridge," and "passageway." Therefore, the Willner combination fails to render claim 17 obvious for the same reasons provided above for claim 1. *See id.* at Q/A 294-25.
>
> Claim 18 depends from claim 17, and therefore, the Willner combination fails to render claim 18 obvious for the same reasons it cannot render claim 17 obvious. Claim 18 further recites "each electronic game control module in electronic communication with the communication link of its corresponding confinement structure," and the Willner combination fails to disclose the "communication link of its corresponding confinement structure" for the reasons explained above in connection with claim 1. *See id.* at Q/A 296-97.

Compl. Br. at 135-36.

The Staff argues, in part:

> Willner discloses a hand grippable combined keyboard and game controller system that provides a docking port for coupling to a palm/tablet sized computing device as shown below. *Id.*
>
> * * *
>
> . . . Willner fails to disclose various limitations claimed by the '393 patent, including, for example, confinement structures, interaction with a computing device, and a rigid structural bridge. *See* Compl. P.H. Br. at 128-131.
>
> * * *

> Park discloses a game controller for a mobile phone device as shown below. *Id.*
>
> * * *
>
> . . . Park, however, fails to disclose various limitations claimed by the '393 patent. *See* Compl. P.H. Br. at 128-131. For example, Park fails to disclose a "rigid structural bridge." *Id.* Park also fails to disclose a "passageway," as claimed by the '393 patent. *Id.* (Singhose testimony cited therein).
>
> * * *
>
> To the extent that Respondents contend that certain combinations of references and/or knowledge common to one of ordinary skill in the art render one or more of the asserted claims obvious, Prof. Singhose testified that the asserted claims are not rendered obvious by the combinations relied upon by Respondents. Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337. Accordingly, Nintendo has failed to show by clear and convincing evidence that the asserted combinations would have been obvious.
>
> For example, none of the asserted combinations teaches or suggests "a combination" having: (1) "a pair of confinement structures, the pair of confinement structures interacting with the computing device and adjacent at least two opposing sides of the computing device, but not more than three sides of the sides of the computing device;" (2) "each of the pair of confinement structures comprising a communication link;" or (3) "each of the communication links configured for electronic communication with the computing device." Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337.

Staff Br. at 90-93.

Gamevice argues, "Many of the limitations in claim 17 overlap with the limitations in claim 1, such as 'confinement structures,' 'communication links,' 'rigid structural bridge,' and 'passageway.'" Compl. Br. at 135. However, as determined above, the combination of Willner and Park renders obvious each of these limitations.

Gamevice further argues that the combination of Willner and Park fails to render obvious "each electronic game control module in electronic communication with the communication link of its corresponding confinement structure," and "communication link of its corresponding confinement structure." *See* Compl. Br. at 136. However, Willner's control modules are in

electronic communication with each connector, communicating with each other and the computing device. *See* RX-0059C (Cameron DWS) at Q/A 390, 392.

Gamevice does not specifically argue any of the remaining limitations of dependent claims 17 and 18. *See* Compl. Br. at 135-36. Moreover, the Willner combination renders claim 17 obvious because Willner's sidewalls are in pressing contact with the top and bottom of Park's computing device. *See* RX-0059C (Cameron DWS) at Q/A 384, 404; RX-0112 (Willner), ¶ 50.

Regarding claim 18, as ruled above, the administrative law judge has determined that (1) the term "second means for controlling movement of a virtual object displayed on said electronic display" is subject to § 112(f); (2) the relevant function is "controlling a movement of a virtual object displayed on said electronic display screen of said computing device"; and (3) there is no corresponding structure, rendering claim 18 indefinite. It is unclear from Nintendo's limited argument, how claim 18 would be rendered obvious in these circumstances. *See* Resps. Br. at 161-62.

Yet, if the term "second means for controlling movement of the virtual object displayed on said electronic display" is construed according to Gamevice's construction, where the second means refers to a pair of control modules providing a plurality of instructional input devices (*e.g.*, joysticks, keys, button, triggers, switches), where each of the pair of control modules is in electronic communication with the communication link of its corresponding confinement structure and is configured for electronic communication with the central processing unit, where the instructional input devices in conjunction with the central processing unit control movement of the virtual object displayed on the electronic display screen, then Nintendo has shown by clear and convincing evidence that the Willner combination renders claim 18 obvious because Willner's control modules include buttons, joysticks, and a d-pad adjacent to the top and bottom

sides of Park's computing device and control movement of a virtual object on the computing device's display screen. *See* RX-0059C (Cameron DWS) at Q/A 390, 396, 405; RX-0112 (Willner), ¶¶ 47-49.

The administrative law judge thus finds that Nintendo has shown by clear and convincing evidence that the combination of Willner and Park renders claim 17 of the '393 patent obvious.

7. Obviousness – Hirschman

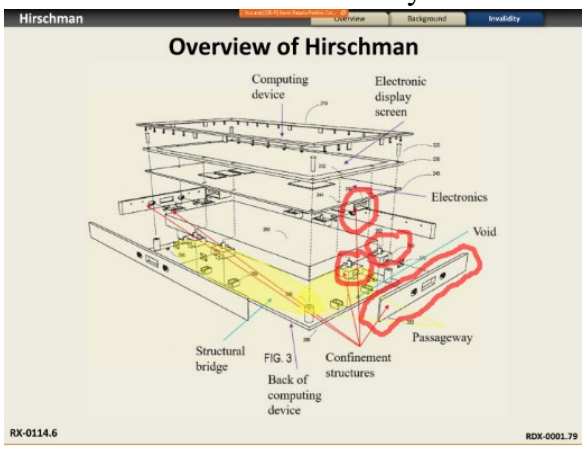
U.S. Patent Publication No. 2012/0271967 ("Hirschman") was published on October 25, 2012. RX-0114 (Hirschman). Hirschman thus qualifies as prior art to the '393 patent.

a. Claims 1-4 and 6-7

Nintendo argues, in part:

> Hirschman discloses all limitations of claim 1 when considering Gamevice's construction and interpretation. RX-59C, Q413–23. Gamevice argues that Hirschman fails to disclose three elements: (1) claim 1c a pair confinement structures interacting with not more than three sides of the computing device; (2) claim 1d a pair of confinement structures comprising a communication link; and (3) claim 1f a passageway. Gamevice's arguments ignore the clear disclosure of Hirschman, disregard Dr. Cameron's analysis, and disregard the knowledge of a POSA.
>
> First, Gamevice argues that Hirschman's sidewalls surround all four sides of Hirschman's computing device, and therefore, interact with the computing device on more than three sides (claim 1c). CPBr.131–32; CX-182C, Q311–12. Gamevice's argument ignores Dr. Cameron's identification of two sidewalls, not all four, as parts of the confinement structures. Gamevice also overlooks that Hirschman expressly discloses embodiments where only two sidewalls have openings for port groups that facilitate connection to the control modules. RX-59C, Q413, 415, 417; Cameron Tr. 704:19–705:1; RX-114 ¶¶ 52, 56. Dr. Cameron pointed to a combination of two of Hirschman's sidewalls 282 and their corresponding retention ports 260, and communication port 242 as the two confinement structures, which each disclose the communication link. RX-59C, Q413, 415, 417; Tr. 704:19–705:1, 749:15–18, 751:24–755:1; RDX-507 (annotated image of RX-114.6). A POSA would understand that these identified confinement structures can confine the computing device on less than four sides. RX-59C, Q415, 417, 423; Cameron Tr. 704:19–705:1; RX-114 ¶¶ 52, 56.

Second, Gamevice argues that Hirschman fails to disclose a communication link (claim 1d) because Hirschman's sidewalls only provide holes for communication ports to pass through but do not comprise ports themselves. CPBr.132; CX-182C, Q313–14. Gamevice's argument ignores that Dr. Cameron identified a combination of Hirschman's sidewalls 282 their corresponding retention ports 260 and communication port 242, not merely the holes as each confinement structure. RX-59C, Q415–17; Tr. 704:19–705:8, 751:24–755:1; RDX-507 (annotated image of RX-114.6); RX-114.6. Dr. Cameron's analysis is consistent with the components a POSA would identify as the communication links in Hirschman, considering Gamevice's interpretation of this limitation, and the '393 patent's disclosure, where the communication link is not required to be on the portion of the confinement structure that holds the computing device. RX-59C, Q415–17; JX-1.21–22. Gamevice specifically pointed to signal lands 342 as disclosing the communication link, which are on the opposite surface of the confinement structure that interacts with computing device. CX-182C, Q468; JX-1.21–22. Gamevice's restriction of Hirschman's confinement structures to the sidewalls, which interact with the computing device, is not consistent with the disclosure of the '393 patent.



Further, Gamevice argues that Hirschman's sidewalls do not hold the computing device because Hirschman's circuit board is held by other inserts 220. CPBR.132; CX-182C, Q315. Gamevice's argument conflicts with its infringement contentions, which allege that the rails of the Nintendo Switch console hold what Gamevice identifies as the computing device. CPBr.41–44. Under this interpretation and construction, Hirschman's sidewalls hold the computing device. RX-59C, Q414–15.

Third, Gamevice argues that Hirschman does not disclose a passageway (claim 1f) because Hirschman does not disclose any communication wire. CPBR.132; CX-182C, Q317–18; Tr. 909:21–910:6. Gamevice's argument improperly restricts Hirschman's disclosure to what is shown in the figures and removes any knowledge from a POSA. RX-59C, Q418. Hirschman discloses that its retention structures 260 may be a conductive material to serve as a conduit of electrical power to Hirschman's circuit board 240 via electrically conductive slots 244, which meets the passageway limitation (under Gamevice's construction). RX-114 ¶ 56. A POSA would also understand that most computers include wires used for communication, and therefore Hirschman's console contains wires even if they are not specifically referenced in Hirschman. RX-59C, Q418. Further, Gamevice's argument conflicts with its infringement analysis, where it identifies a space within

the Nintendo Switch console as the alleged passageway even though large portions of this space do not, and in fact could not, contain any communication wires. RX-1824C, Q462–502; CX-1C, Q442–47; CDX-1C.66–67 (images of CPX-21). Considering the knowledge of a POSA, Hirschman discloses a passageway under Gamevice's construction and interpretation. RX-59C, Q418.

Gamevice does not contest that Hirschman discloses the remaining limitations of claim 1. RPBr.166–67; RX-59C, Q413–23. Claim 1pre: The console of Hirschman, used with its control modules, is a combination under Gamevice's interpretation. RX-59C, Q413. Claim 1a: Hirschman discloses a computing device under Gamevice's interpretation of this limitation in the form of circuit board 240 that contains a CPU. RX-59C, Q414, 423; RX-114 ¶¶ 52, 56. Claim 1b: Hirschman discloses sidewalls 282, including the plurality of connecting ports 260 and 242. RX-59C, Q415–17, 423; RX-114.6. Claim 1e: Hirschman discloses a rigid structural bridge under Gamevice's interpretation in the form of chassis 280. RX-59C, Q418, 423; RX-114.6. Alternatively, Hirschman's bezel 210 constitutes a structural bridge under Gamevice's construction. RX-59C, Q419. Dr. Singhose testified that bezel 210 of Hirschman is a physical apparatus that connects components. Tr., 908:10–12, 909:15–20. Claim 1g: A POSA would recognize that the space on Hirschman's chassis 280 can be used to electrically connect retention structures 260 to other components, including the CPU on circuit board 240. RX-59C, Q418, 423; RX-114 ¶¶ 57–58. Claim 1h: Hirschman discloses a pair of detachable control modules. RX-59C, Q421, 423; RX-114.21. Claim 1i: Each control module of Hirschman secures to and interacts with its sidewalls. RX-59C, Q421, 423. Claim 1j: Hirschman's control modules are in electronic communication with each port group via retention structures 260 connected to retention posts 162 of each control module. RX-59C, Q421, 423; RX-114 ¶¶ 58–59. Claim 1k: Hirschman's control modules are detachable. RX-59C, Q416, 423; RX-114.8. Claim 1l: Hirschman's structural bridge is separate and distinct from its sidewalls and secured to the console. RX-59C, Q418, 423.

* * *

Gamevice does not contest that Hirschman discloses dependent claims 2–4 and 6–7, but instead relies solely on its arguments concerning claim 1. CPBr.132; CX-182C, Q319. Hirschman in view of the knowledge of a POSA renders obvious claims 2–4 and 6–7. RPBr.167; RX-59C, Q424–28. Hirschman renders claim 2 obvious because Hirschman's chassis 280 supports electronics contained on the circuit board. RX-59C, Q424; RX-114 ¶¶ 52, 56. Hirschman renders claim 3 obvious because Hirschman's computing device comprises a back, such as a cover that is consistently added to the back of computing devices, with an internal surface and external surface that cooperate with at least two opposing sides of the computing device. RX-59C, Q414, 425; RX-114.21. Claim 4 is obvious because Hirschman's chassis cooperates with the back of the computing device, such as the cover discussed for claim 3. RX-59C, Q426. Hirschman renders claim 6 obvious

under Gamevice's interpretation because Hirschman's control modules generate signals to control images displayed on the console. RX-59C, Q414, 427; RX-114 ¶¶ 60, 79. Hirschman renders claim 7 obvious because its circuit board includes communication buses and other equipment. RX-59C, Q428; RX-114 ¶ 56.

Resps. Br. at 161-65.

Gamevice argues, in part:

The evidence showed that claim 1 is valid over Hirschman. *See* CX-0182C at Q/A 310. As the evidence showed, Nintendo's invalidity arguments suffer several fatal flaws. First, Hirschman fails to disclose "a pair of confinement structures . . . interacting with . . . not more than three sides of the sides of the computing device." *See id.* at Q/A 311. The side walls in Hirschman, which Nintendo identifies as the purported "confinement structures" surround all four sides of Hirschman's computing device, and therefore, fail to satisfy "interacting with . . . not more than three sides of the sides of the computing device." *See id.* at Q/A 311; CDX-0003C.0018; Cameron Tr. 702:11-703:8. While Hirschman discloses that "port groups" (i.e., connectors on the sidewalls) might be provided on fewer sides, it does not disclose that the Hirschman console can have fewer sidewalls. *See* CX-0182C at Q/A 312; CDX-0003C.0019-20.

Second, Hirschman fails to disclose "each pair of the pair of confinement structures comprising a communication link" because the sidewalls only provide holes for communication ports to pass through, but do not comprise communication ports themselves. *See* CX-0182C at Q/A 313. Moreover, the sidewalls fail to meet the parties' constructions for "confinement structures." *See id.* at Q/A 314. For example, the sidewalls fail to satisfy Gamevice's construction because Hirschman's computing device (i.e., circuit board) is held together by inserts 220 that go through Hirschman's console top down rather than vertically through the sidewalls. *See id.* at Q/A 315. Also, Nintendo's identification of "confinement structures" in Hirschman is inconsistent. For claim limitation "1d", Nintendo points to the sidewalls, retention structures, and communication ports as constituting the "confinement structures" to try to satisfy the claim requirement that a confinement structure must comprise a communication link. For claim limitation "1l," however," Nintendo only identifies the sidewalls as the "confinement structures" to try to satisfy the claim requirement that the structural bridge must be "separate and distinct" and "forming no structural portion" of each confinement structure. Nintendo has to resort to this inconsistent position because the retention structures and the communication ports are part of the chassis, which Nintendo identified as the structural bridge, rendering parts of its purported "confinement structures" forming a portion of the structural bridge. Therefore, even under Nintendo's own mapping, Hirschman fails to disclose either the "confinement structures" or the "confinement structures" that are "separate and distinct" from and "forming no structural portion of" the structural bridge, or both.

> Third, Hirschman fails to disclose the "passageway" limitation under the parties' constructions of the term in this investigation. *See id.* at Q/A 317. The parties in this investigation proposed to construe the term as a space that accommodates or holds a communication wire. *See id.* Hirschman, however, does not disclose any communication wire, so it fails to disclose any space for accommodating or holding a wire as well. *See id.* The evidence showed that a POSITA would not understand that a wire must necessarily be present in Hirschman's chassis. *See id.* at Q/A 318. In fact, the evidence showed that a POSITA would conclude the opposite because Hirschman is completely silent on the use of a wire even though it discloses details of other components, indicating that it could have easily described a communication wire, but it chose not to do so. *See id.* Hirschman fails to disclose other limitations in claim 1 that recite "pair of confinement structures," "communication link," and "passageway" for the reasons explained above. *See id.* at Q/A 316. Furthermore, Hirschman fails to render dependent claims 2-4 and 6-7 obvious because it fails to render claim 1 obvious. *See id.* at Q/A 319.

Compl. Br. at 136-38.

The Staff argues, in part:

> . . . Hirschman describes a tablet computer device that can be configured with one or more peripheral controllers. *See id.*
>
> * * *
>
> . . . Hirschman, however, fails to disclose various limitations claimed by the '393 patent. *See* Compl. P.H. Br. at 131-135. For example, Hirschman fails to disclose confinement structures and structural bridge limitations. *See id.*; RX-0114 (Hirschman).
>
> * * *
>
> To the extent that Respondents contend that certain combinations of references and/or knowledge common to one of ordinary skill in the art render one or more of the asserted claims obvious, Prof. Singhose testified that the asserted claims are not rendered obvious by the combinations relied upon by Respondents. Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337. Accordingly, Nintendo has failed to show by clear and convincing evidence that the asserted combinations would have been obvious.
>
> For example, none of the asserted combinations teaches or suggests "a combination" having: (1) "a pair of confinement structures, the pair of confinement structures interacting with the computing device and adjacent at least two opposing sides of the computing device, but not more than three sides of the sides of the computing device;" (2) "each of the pair of confinement structures comprising a

> communication link;" or (3) "each of the communication links configured for electronic communication with the computing device." Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337.

Staff Br. at 92-93.

The administrative law judge finds that Nintendo has not shown by clear and convincing evidence that Hirschman renders independent claim 1 of the '393 patent obvious. For the same reasons, Nintendo has not shown by clear and convincing evidence that Hirschman renders dependent claims 2-4 and 6-7 obvious.

As an initial matter, "confinement structures" has been construed to mean "components that hold a computing device."

Nintendo contends that Hirschman's side walls, which Nintendo equates with the claimed confinement structures, interact with not more than three sides of the computing device. *See* Resps. Br. at 161-62. However, Hirschman's side walls surround all four sides of Hirschman's computing device, and therefore, fail to satisfy "interacting with . . . not more than three sides of the sides of the computing device." *See* CX-0182C (Singhose RWS) at Q/A 311; Cameron Tr. 702-703. Nintendo argues that only two of Hirschman's side walls have retention ports, *see* Resps. Br. at 162, but Nintendo has not shown that that the Hirschman console can have fewer than four sidewalls, *see* CX-0182C (Singhose RWS) at Q/A 312.

Moreover, Hirschman's sidewalls only provide holes for the communication ports 242, which are provided on the circuit board 240, as shown in FIG. 3 of Hirschman, reproduced below.

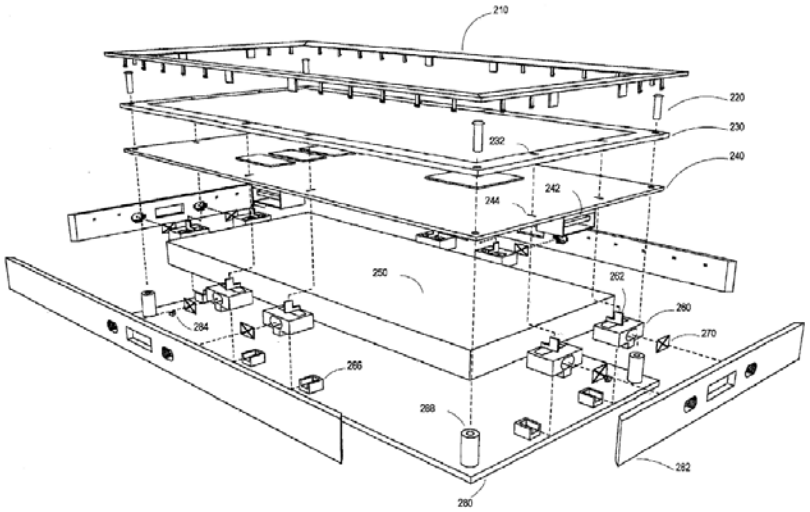


FIG. 3 of RX-0114 (Hirschman)

Nintendo further argues that Hirschman discloses a "passageway." *See* Resps. Br. at 163-64. As ruled above, a "passageway" means "a space that accommodates a communication wire." Hirschman, however, does not disclose any communication wire, and does not disclose a space for accommodating such a wire. *See* CX-0182C (Singhose RWS) at Q/A 317.

The administrative law judge thus finds that Nintendo has not shown by clear and convincing evidence that Hirschman renders claim 1 obvious, or dependent claims 2-4 and 6-7.

b. Claim 8

Nintendo argues, in part:

> Hirschman discloses all limitations of claim 8 when considering Gamevice's construction and interpretation. RX-59C, Q429–32. Gamevice only disputes that certain limitations are not found in the two components of Hirschman separately identified as structural bridges by Dr. Cameron under Gamevice's broad definition, bezel 210 and chassis 280. These two structural bridges (under Gamevice's interpretation) are discussed separately below.
>
> With respect to chassis 280 in Hirschman, Gamevice only argues that this bridge fails to disclose one element: a void (claim 8d). CPBr.133; CX-182C, Q320–25. Gamevice's arguments disregard the knowledge of a POSA. As Dr. Cameron explained, a POSA would recognize that many electronic devices have coverings disposed over the back of them, including Hirschman's chassis 280,

which would cover any void in Hirschman's chassis. RX-59C, Q420, 432. Alternatively, a POSA would be motivated to add a void to Hirschman's chassis to reduce weight of the device or assist with heat dissipation. RX-59C, Q137, 420, 432.

With respect to Hirschman's bezel 210, Gamevice argues that the bezel is not a structural bridge under its construction. CPBr.133. Gamevice's argument is contradicted by Dr. Singhose's testimony. Tr. 908:10–12, 909:15–20. Dr. Singhose testified that Hirschman's bezel 210 is a physical apparatus and that the connectors of bezel 210 snap into the holes or indentations in Hirschman's sidewalls 282, connecting these components. Tr. 906:20–23, 907:18–908:12, 909:15–20, 910:7–12; RDX-624 (annotation of image RX-114.6). The sidewalls of Hirschman have the exact number of holes corresponding to the number of connectors of Hirschman's bezel. RX-114.6. Under Gamevice's construction, Hirschman's bezel is a structural bridge. Dr. Singhose also admitted that Hirschman's bezel contains a void with four sides that communicate with material of the bezel. Tr. 908:25–909:9. Hirschman's bezel, therefore, discloses a structural bridge with a void under Gamevice's construction. RX-59C, Q420, 432.

Gamevice does not contest that Hirschman discloses the remaining limitations of claim 8. RPBr.167–68; RX-59C, Q429–32. Claim 8pre: Hirschman is a combination with its removable game controllers. RX-59C, Q413. Claim 8a: Hirschman discloses that both its chassis 280 and bezel 210 have a first and second end associated with control modules. RX-59C, Q418–19; RX-114.6. Claim 8b: Both Hirschman's chassis 280 and bezel 210 are configured for adaptation under Gamevice's construction because they accommodate the length of Hirschman's circuit board 240. RX-59C, Q418, 431; RX-59C.A, Q418, 431; RX-114.6. Claim 8c: Hirschman discloses that circuit board 240 has a length greater than its width. RX-59C, Q414, 431, RX-114.6.

Resps. Br. at 165-66.

Gamevice argues, in part:

The evidence showed that claim 8 is valid over Hirschman. *See* CX-0182C at Q/A 320. Hirschman fails to disclose the "void" limitation in claim 8 because the chassis does not have any void because nothing in Hirschman indicates that it could have a void. *See id.* at Q/A 321. Also, the bezel, which is merely a frame for the console, is not a structural bridge under the parties' proposed constructions. *See id.* at Q/A 322; Singhose Tr. 909:10-14. It fails to meet Gamevice's and OUII's constructions because it merely sits on top of Hirschman's console, and therefore, does not connect any components together. *See* CX-0182C at Q/A 322. For the same reason, it cannot bear any load of the computing device under Nintendo's construction. *See id.*

As the evidence showed, a POSITA would not add a void to the chassis to

reduce the weight of the device or assist with heat dissipation. *See id.* at Q/A 324. Nothing in Hirschman indicates that a void could be added to the chassis to achieve these purported goals. *See id.* Moreover, the evidence showed that a POSITA could achieve these alleged goals through more effective ways, such as manufacturing the device with light-weight materials or reducing the size of the battery to reduce the weight of the device. *See id.* Also, a POSITA would be deterred from adding a void to the chassis because doing so could expose the components of the computing device to dirt and debris, causing contamination and increasing the risk of damage and malfunction. *See id.* at Q/A 324. Also, a POSITA would not add a void to the circuit board to connect the circuit board components to other components in the console. *See id.* As explained above, Hirschman does not disclose any wires, so it does not need any void for the non-existent wires to pass through. *See id*.

Compl. Br. at 138-39.

The Staff argues, in part:

. . . Hirschman describes a tablet computer device that can be configured with one or more peripheral controllers. *See id.*

* * *

. . . Hirschman, however, fails to disclose various limitations claimed by the '393 patent. *See* Compl. P.H. Br. at 131-135. For example, Hirschman fails to disclose confinement structures and structural bridge limitations. *See id.*; RX-0114 (Hirschman).

* * *

To the extent that Respondents contend that certain combinations of references and/or knowledge common to one of ordinary skill in the art render one or more of the asserted claims obvious, Prof. Singhose testified that the asserted claims are not rendered obvious by the combinations relied upon by Respondents. Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337. Accordingly, Nintendo has failed to show by clear and convincing evidence that the asserted combinations would have been obvious.

For example, none of the asserted combinations teaches or suggests "a combination" having: (1) "a pair of confinement structures, the pair of confinement structures interacting with the computing device and adjacent at least two opposing sides of the computing device, but not more than three sides of the sides of the computing device;" (2) "each of the pair of confinement structures comprising a communication link;" or (3) "each of the communication links configured for electronic communication with the computing device." Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337.

Staff Br. at 92-93.

The administrative law judge finds that Nintendo has not shown by clear and convincing evidence that Hirschman renders independent claim 8 of the ’393 patent obvious.

As an initial matter, “structural bridge” has been construed to mean “a physical apparatus that connects other components.”

Claim 8 recites, in part, “structural bridge provides a void, the void disposed between the first end of the structural bridge and the second end of the structural bridge, the void having right, left, upper, and lower sides, each side of the void communicating with a material of the structural bridge.” Nintendo contends that one of ordinary skill in the art would recognize that many electronic devices have coverings disposed over the back of them, including Hirschman’s chassis 280, which would cover any void in Hirschman’s chassis, or one of ordinary skill in the art would be motivated to add a void to Hirschman’s chassis to reduce weight of the device or assist with heat dissipation. *See* Resps. Br. at 165. However, Nintendo has not shown that Hirschman’s chassis contains a void. *See* CX-0182C (Singhose RWS) at Q/A 324. Nothing in Hirschman indicates that a void could be added to the chassis to reduce the weight of the device or assist with heat dissipation. *See id.* Moreover, the evidence showed that one of ordinary skill in the art could achieve these goals through more effective ways, such as manufacturing the device with light-weight materials or reducing the size of the battery to reduce the weight of the device. *See id.*

The administrative law judge thus finds that Nintendo has not shown by clear and convincing evidence that Hirschman renders claim 8 of the ’393 patent obvious.

c. Claims 17-18

Nintendo argues, in part:

> Hirschman discloses all limitations of claims 16–18 under Gamevice's construction and interpretation. RPBr.169–70; RX-59C, Q436–40. Gamevice does not contest that Hirschman discloses all limitations of claim 16. CPBr.135; CX-182C, Q335–37. Claim 16pre: Hirschman is a combination with its removable game controllers. RX-59C, Q413. Claim 16a: Hirschman discloses control modules, confinement structures, and a structural bridge. RX-59C, Q415, 418, 421, 438. Claim 16b: Hirschman's circuit board provides a CPU and has a plurality of sides. RX-59C, Q414, 438; RX-114 ¶¶ 52, 56. Claim 16c: The sides of circuit board 240 cooperate with the sides of the touch screen. RX-59C, Q414, 438. Claim 16d: Hirschman's control modules control movement of a virtual object displayed on the touch screen. RX-59C, Q427, 438. Claim 16f: Hirschman's control modules are accommodated by the controller. RX-59C, Q421, 438.
>
> Gamevice only contests that Hirschman does not invalidate claims 17 and 18 for the same reasons it puts forth for claim 1. CPBr.135; CX-182C, Q335–37. For the reasons discussed above for claim 1, Hirschman discloses the limitations that Gamevice disputes, as well as all remaining undisputed limitations of claim 1 and limitations of dependent claims 17 and 18. For claim 17, Hirschman's sidewalls would be in pressing contact with the left and right sides of the computing device. RX-59C, Q415, 439. For claim 18, Hirschman's control modules include buttons, joysticks, and a d-pad that are adjacent to the left and right sides of the console and control movement of a virtual object on the touch screen. RX-59C, Q421, 427, 440.

Resps. Br. at 166-67.

Gamevice argues, in part:

> The evidence showed that claim 17 is valid over Hirschman. *See* CX-0182C, Singhose Rebuttal WS Q/A 335. Many of the limitations in claim 17 overlap with the limitations in claim 1, such as "confinement structures," "communication links," and "passageway." *See id*. Therefore, Hirschman fails to render claim 17 obvious for the same reasons provided above for claim 1. *See id*.
>
> Claim 18 depends from claim 17, and therefore, Hirschman fails to render claim 18 obvious for the same reasons it cannot render claim 17 obvious. *See id.* at Q/A 336-37. Claim 18 further recites "each electronic game control module in electronic communication with the communication link of its corresponding confinement structure," and Hirschman fails to disclose the "communication link of its corresponding confinement structure" for the reasons explained above in connection with claim 1. *See id*.
>
> Therefore, the evidence showed that Nintendo failed to prove by clear and convincing evidence that the asserted claims are invalid in view of Nintendo's alleged prior art.

Compl. Br. at 139-40.

The Staff argues, in part:

> . . . Hirschman describes a tablet computer device that can be configured with one or more peripheral controllers. *See id.*
>
> * * *
>
> . . . Hirschman, however, fails to disclose various limitations claimed by the '393 patent. *See* Compl. P.H. Br. at 131-135. For example, Hirschman fails to disclose confinement structures and structural bridge limitations. *See id.*; RX-0114 (Hirschman).
>
> * * *
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> To the extent that Respondents contend that certain combinations of references and/or knowledge common to one of ordinary skill in the art render one or more of the asserted claims obvious, Prof. Singhose testified that the asserted claims are not rendered obvious by the combinations relied upon by Respondents. Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337. Accordingly, Nintendo has failed to show by clear and convincing evidence that the asserted combinations would have been obvious.
>
> For example, none of the asserted combinations teaches or suggests "a combination" having: (1) "a pair of confinement structures, the pair of confinement structures interacting with the computing device and adjacent at least two opposing sides of the computing device, but not more than three sides of the sides of the computing device;" (2) "each of the pair of confinement structures comprising a communication link;" or (3) "each of the communication links configured for electronic communication with the computing device." Compl. P.H. Br. at 108-162; CX-0182C (Singhose RWS) at Q/A 29-337.

Staff Br. at 92-93.

The administrative law judge finds that Nintendo has not shown by clear and convincing evidence that Hirschman renders claims 17 or 18 of the '393 patent obvious.

As noted above, Hirschman's sidewalls only provide holes for the communication ports 242, which are provided on the circuit board 240, as shown in FIG. 3 of Hirschman. Hence, Hirschman fails to disclose "each of the pair of confinement structures comprising a

communication link" because the sidewalls only provide holes for communication ports to pass through, but do not comprise communication ports themselves. *See* CX-0182C at Q/A 335.

Nintendo further argues that Hirschman discloses a "passageway." *See* Resps. Br. at 167. As determined above, a "passageway" means "a space that accommodates a communication wire." Hirschman, however, does not disclose any communication wire, and does not disclose a space for accommodating such a wire. *See* CX-0182C (Singhose RWS) at Q/A 317, 335.

The administrative law judge thus finds that Nintendo has not shown by clear and convincing evidence that Hirschman renders claims 17 or 18 of the '393 patent obvious.

8. Secondary Considerations

The objective evidence, also known as "secondary considerations," includes commercial success, long felt need, and failure of others. *Graham v. John Deere Co.*, 383 U.S. 1, 13-17 (1966); *Dystar Textilfarben GmbH v. C.H. Patrick Co.*, 464 F.3d 1356, 1361 (Fed. Cir. 2006). "[E]vidence arising out of the so-called 'secondary considerations' must always when present be considered en route to a determination of obviousness." *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1538 (Fed. Cir. 1983). Secondary considerations, such as commercial success, will not always dislodge a determination of obviousness based on analysis of the prior art. *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 426 (2007) (commercial success did not alter conclusion of obviousness).

As found above, Gamevice has demonstrated that the '393 patent is implemented in the Gamevice for iPad and the Razer Kishi. Gamevice only argues the factors of commercial success and praise by others, and does not address long-felt but unresolved need or copying. *See* Compl. Br. at 140-41.

a. Commercial Success

Gamevice argues that its products are commercially successful, as demonstrated by substantial sales and sales revenue of the Gamevice controllers, which also led to patent licensing agreement with Razer to produce and sell the Kishi product. *See* Compl. Br. at 141 (citing CX-0001C (Singhose DWS) at Q/A 1398-1400). Nintendo argues that the alleged success of the Gamevice DI products has decreased significantly in recent years. *See* Resps. Br. at 176.

To demonstrate a nexus between the claimed features and the commercial success of its products, Gamevice must show that success was "due to the merits of the claimed invention beyond what was readily available in the prior art." *J.T. Eaton & Co., Inc. v. Atl. Paste & Glue Co.*, 106 F.3d 1563, 1571 (Fed. Cir. 1997). If the commercial success is due to an unclaimed feature of the device, the commercial success is irrelevant. *Ormco Corp. v. Align Tech., Inc.*, 463 F.3d 1299, 1311-13 (Fed. Cir. 2006). As noted above, Gamevice has shown that the Gamevice for iPad practices claim 8 of the '393 patent, and the Razer Kishi practices claims 8-11 of the '393 patent. However, Gamevice also presented evidence showing that the Gamevice for iPhone, which the administrative law judge has found does not practice any of the claims of the '393 patent, dramatically outsold the Gamevice for iPad. *See* CX-0092C. Viewing the evidence as a whole, this factor does not support a conclusion of non-obviousness.

b. Praise by Others

Gamevice argues that it has received praise stemming from its patented inventions. *See* Compl. Br. at 140-41 (citing CX-0073, CX-0075, CX-0101, CX-0104, CX-0110, CX-0116). However, it has not been established that any praise was for the patented features, apart from the unpatented features. These articles and reviews refer to generic features that were well-known in

the art. *See* RX-0059C (Cameron DWS) at Q/A 443-46. Furthermore, these articles and reviews praised features of other products, such as the MOGA's lightning port, that Gamevice separately distinguishes from its claimed invention. *See id.* Viewing the evidence as a whole, this factor does not support a conclusion of non-obviousness.

* * *

Accordingly, the administrative law judge finds that there is little to no evidence of secondary considerations that tends to support non-obviousness of the claims of the '393 patent.

B. Validity Under 35 U.S.C. § 112(a): Written Description

1. Computing Device with Structural Bridge

Nintendo argues, in part:

> In every patent, the inventors described their invention as an accessory (*e.g.*, "Game Controller with Structural Bridge," JX-1, (54)) for use with an off-the-shelf, stand-alone smartphone or tablet. RX-1824C, Q298–316; RX-60C, Q321–36, 422–32; *see generally, e.g.,* RX-228 ('453 patent). Indeed, the purpose of the game controller is for it to be reversibly attached to a smartphone to play video games and then removed to allow for normal operation. Stern Tr. 534:9–535:4; RX-60C, Q4, 20, 323, 423–25; RX-1824C, Q28–32, 225, 227–28. Unsurprisingly then, nowhere in the specification of any of the patents (including all 44 figures and 17 columns of text in the '393 patent itself) do the inventors disclose possession of, let alone contemplate, a computing device with a structural bridge (a component exclusively described throughout the specification, and in the very title of the patents, as part of the *"Game Controller* with Structural Bridge*,*" JX-1, (54)). RX-60C, Q321–36, 409–10, 423–34; RX-1824C, Q72–81, 298–316.
>
> Yet that is precisely the asserted scope of the claims, purportedly covering the Nintendo Switch where the accused structural bridge is integrated with, and internal to, a computing device. *See* Singhose Tr. 240:21–24 (testifying that the alleged structural bridge is internal to the Nintendo Switch console), 202:18–24 (testifying that the console "is certainly a computing device"); Stern Tr. 539:14–540:8; RX-60C, Q409–14; RX-1824C, Q206–23; *see* Section 11. "The invention is, for purposes of the written description inquiry, whatever is now claimed," *PowerOasis*, 522 F.3d at 1311 (cleaned up), and there is no written description support for the scope of what Gamevice now alleges it had claimed.
>
> There is no express disclosure of a structural bridge within, or as part of, a

computing device in any of the patents in this family—the structural bridge is always depicted and described as a component of the gaming accessory. Singhose Tr. 251:19–257:24 (confirming figures showing the structural bridge as part of the game controller and separate from the computing device); RX-60C, Q321–36, 423–34; RX-1824C, Q72–81, 298–316; *see generally, e.g.*, RX-228; RX-219 ('119 patent). And a POSA, reviewing the specification, would not find inherent disclosure that "necessarily" discloses the opposite arrangement where the computing device (rather than the gaming accessory) has the structural bridge, *see PowerOasis*, 522 F.3d at 1306; Stern Tr. 534:9–535:4; RX-60C, Q324–27, 424–25; RX-1824C, Q298, 306–07, 312–13. "[F]igures and descriptions that [show a computing device without a structural bridge do not] somehow demonstrate that the inventor possessed [a computing device with a structural bridge]." *See ICU Med., Inc. v. Alaris Med. Sys., Inc.*, 558 F.3d 1368, 1378 (Fed. Cir. 2009).

Every single figure and description in the patent shows and describes either: (1) an accessory with a separate computing device, *i.e.*, the structural bridge is explicitly part of the accessory and not the computing device, *e.g.*, RX-228, Figs. 1–4, 8–10, 12–16, 25, 29–30, 32–34, 36, 39–40; *see also* JX-1, 41–42, (2) the accessory itself or components of the accessory with no computing device shown at all, RX-228, Figs. 5, 11, 17–24, 26–28, 31, 35, 37–38; *see also* JX-1, 43–44, or (3) block diagrams of the general characteristics of a computing device with no structural bridge and separate from the accessory, *i.e.*, the only two figures specifically illustrating components of the computing device do not suggest, let alone show, a structural bridge. RX-228, Figs. 6–7. RX-60C, Q321–36, 423–34; RX-1824C, Q72–81, 298–316.

Each of the embodiments shows the same thing. For instance, Figure 14 shows where the structural bridge is part of input device 250, interacting with the back of a separate computing device: "Fig. 14 shows the back 248, of the computing device 242, and the computing device 242, partially positioned within the input device 250. Figure 14 further shows a structural bridge … communicating with the back 248 of the computing device," where the input device and computing device are separate devices. *E.g.*, RX-219, Fig. 14, 6:66–7:5; *see* RX-60C, Q324, 424–27; RX-1824C, Q300–02. In the embodiment of Figure 16, the specification describes a communication port 310 (comprising a structural bridge) that is necessarily separate from, and external to, the computing device because it is expressly taught to be capable of being attached to, and detached from, the computing device: "[o]peration of the fastening mechanism 320 … facilitates placement of the computing device 302 between the pair of confinement structures 316 … and an ability to remove the compressive load and allow removal of the computing device from the communication port 310." *E.g.*, RX-219, 8:43–53; *see* RX-60C, Q325–27, 424–26, 428–29, 441–43; RX-1824C, Q303–07. In another embodiment shown in Fig. 31, the gaming accessory and structural bridge 422 are "configured to accommodate computing devices of varying sizes," *e.g.*, RX-228, 3:6–8, which is only possible if the structural bridge is separate from, and external to, various

accommodated computing devices. RX-60C, Q325–27, 425–26, 431–32; RX-1824C, Q311–13. And the related configuration in Figure 35, which Dr. Singhose testified is a photograph of a Gamevice product (with a structural bridge), is undisputed to be separate from the computing device (an iPad). CX-1C, Q1065.

Consistent with this disclosure, the computing device is contemplated to take "the form of a tablet computer, smart phone, notebook computer, or other portable computing device," RX-219, 3:17–19. RX-1824C, Q277, 310; RX-60C, Q323, 471. Every description and depiction of the computing device confirms that only off-the-shelf, stand-alone products (*e.g.*, an iPad) were disclosed and were never taught to be modified in any way by the inventors. *Id*. Additionally, the sole depiction of functional components of a computing device (Figures 6 and 7) are shown as separate from components that characterize the gaming accessory, *e.g.*, RX-219, Figs. 6–7, 4:41–67. Stern Tr. 628:17–630:2; RX-60C, Q255; RX-1824C, Q176.

The above disclosure renders this case "substantially similar to several of [the Federal Circuit's] cases holding claims unsupported by the written description, in which the specification fails to teach a potential configuration of elements," *Rivera*, 857 F.3d at 1322–23. For example, in *PowerOasis Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1310–11 (Fed. Cir. 2008), the Federal Circuit affirmed anticipation based on the patentee's failure to identify adequate written description in the priority patent application. In that case, the claims were directed to a vending machine and a "customer interface" located on a customer's laptop. *Id*. at 1302. Multiple different interface embodiments were disclosed in the specification, but the interface was only ever disclosed as part of the *vending machine*, not the user's device; thus, there was inadequate written description for the claimed arrangement. *Id*. at 1307, 1309. The same is true here. As explained above, the structural bridge was exclusively described as part of the *gaming accessory*, not the computing device; thus, there is inadequate written description support for the now-claimed arrangement encompassing a product with the accused structural bridge integrated with, and internal to, a computing device. RX-60C, Q321–36, 422–34; RX-1824C, Q78–81, 298–316.

Similarly, in *Rivera v. ITC*, 857 F.3d 1315 (Fed. Cir. 2017), the claims were directed to a single-brew coffee machine that, as asserted, required "integration of the [coffee] filter into the [container] itself," but the ITC and the Federal Circuit concluded that the claimed combination lacked sufficient written-description support because the filter and container were only ever disclosed as separate components. 857 F.3d at 1319. Just as in *Rivera*, here there is no written description in any of the patent applications of an integrated configuration of the computing device and structural bridge. As explained above, "every embodiment and teaching in the specification shows the [structural bridge] and the [computing device] as distinct elements," *id*. at 1320. RX-60C, Q321–36, 422–34; RX-1824C, Q72–81, 298–316. Additionally, "the distinction of the [structural bridge] from the [computing device] is fundamental to the problem and solution taught in the

specification," *Rivera*, 857 F.3d at 1320—a gaming accessory (with a structural bridge) that can be reversibly attached to (for gaming) and removed from (for general operation) a computing device. Stern Tr. 534:9–535:4; RX-60C, Q4, 20, 323, 423–25; RX-1824C, Q28–32, 225, 227–28, 310, 313–14. And "the embodiments shown in the specification would not work without a separate [structural bridge and computing device]," *Rivera*, 857 F.3d at 1320—the structural bridge keeps the two halves of the gaming accessory together and provides load-bearing support for the separate, reversibly attached computing device. RX-60C, Q428–29, 431–32; RX-1824C, Q298–02, 306–07, 312–13; *see* Section 9.5.

Gamevice "has failed to point to any disclosure in the specification [of any of its patents] that describes" the scope of the claimed device as broadly as Gamevice now asserts. *ICU*, 558 F.3d at 1379; *see* Section 18.3 (explaining the legal insufficiency of Gamevice's arguments). Thus, Gamevice has failed to establish entitlement to an earlier priority date and the claims are invalid as anticipated.").

Resps. Br. at 102-06 (footnote omitted).

Gamevice argues, in part:

The '393 patent provides adequate written description support for the claimed combination of "structural bridge" and "computing device." Nintendo contends that claims 1, 8, and 17 of the '393 patent are invalid for lack of a written description, and that they are not entitled to benefit from the filing dates of the patents to which the '393 patent claims priority. Specifically, it contends that the '393 patent and its priority patents lack written description support for a "structural bridge" that is an integrated, internal component of a "computing device." As an initial matter, Nintendo's position relies on a flawed understanding of Gamevice's infringement contentions. *See* CX-0182C, Singhose Rebuttal WS at Q/A 441-442. Contrary to Nintendo's understanding, the upper frame "structural bridge" is not integral to, integrated with, part of, or otherwise within what Gamevice contends is the claimed "computing device." *See id*. Because Nintendo's position is premised on a flawed understanding of Gamevice's theory of infringement of claims 1, 8, and 17, its arguments flowing from that premise are incorrect. *See id*. Moreover, the claims do not require that the "structural bridge" is either internal or external to the "computing device." *See* JX-0001 at claims 1, 8, 12, 17, 19; CX-0182C at Q/A 444-447; CDX-0003C at 30. Thus, the '393 patent and its priority patents need not support these unclaimed features. *See Amgen Inc. v. Hoechst Marion Roussel*, 314 F.3d 1313, 1333 (Fed. Cir. 2003).

Nevertheless, even if Nintendo's mischaracterization of Gamevice's infringement contentions were accepted, or the entire Nintendo Switch Console were considered the "computing device" such that the upper frame "structural bridge" is an internal component of the "computing device," Nintendo has failed to show that the '393 patent or its priority patents disclaim a "structural bridge" that

is integrated within a "computing device." Nintendo fails to identify a single instance where the '393 patent or any of its priority patents disclaim an internal or partially internal structural bridge from the scope of the claimed inventions. Nor has it identified any statement requiring that the structural bridge be external or partially external to the computing device. That is because there are no such disclaimers or restrictions in the '393 patent or its priority patents. *See* CX-0182C at Q/A 448.

* * *

By contrast, when the authors of the '393 patent and its priority patents wanted to specify a particular geometric relationship between components, they did so in the specification. For example, the '393 patent states that, in preferred embodiments, the input device is a separate and distinct structure from the communication port, forming no structural portion of the communication port. *See* JX-0001 at 9:39-53; CX-0088 at Abstract, 1:16-35, 8:7-21, claim 1; RX-0228 at 9:7-22. The patents' disclosure of the preferred relative arrangement of other components highlights their choice not to disclaim any relative arrangement of the structural bridge and computing device, and not to restrict that arrangement in any way. *See* CX-0182C at Q/A 451, 457, 461. Thus, the scope of disclosure of the '393, '119, and '453 patent specifications is commensurately broad with the scope of the '393 patent's asserted claims.

* * *

Under similar circumstances where the art at issue is predictable, the Federal Circuit follows the general rule that disclosure of a species is sufficient written description support for a later claimed genus including that species. *See Bilstad*, 386 F.3d at 1124. For example, in *Ethicon Endo-Surgery, Inc. v. U.S. Surgical Corp.*, the Federal Circuit explained that if the patentee "did not consider the precise location of the [mechanical component] to be an element of his invention, he was free to draft claim[s] broadly (within the limits imposed by the prior art) to exclude the [component's] exact location as a limitation of the claimed invention." 93 F.3d 1572, 1582 n.7 (Fed. Cir. 1996). "Such a claim would not be unsupported by the specification even though it would be literally infringed by undisclosed embodiments." *Id*. Similarly, because the '393 patent's inventors did not consider the precise location of the structural bridge relative to the computing device to be an element of their invention, they were free to draft claims excluding the structural bridge's exact location as a claimed limitation without violating the written description requirement or losing the benefit of priority to the '119 and '453 patents.

Nintendo's cases cited in its pre-hearing brief, *Rivera v. Int'l Trade Comm'n*, 857 F.3d 1315, 1322–23 (Fed. Cir. 2017) and *ICU Med., Inc. v. Alaris Med. Sys., Inc*., 558 F.3d 1368, 1379 (Fed. Cir. 2009), are both inapposite to this case. In *Rivera*, the claims expressly recited a limitation requiring a container with

an integrated filter. *Rivera*, 857 F.3d at 1319. Here, by contrast, the '393 patent does not expressly recite any location for the structural bridge relative to the computing device, and so the written description need not support this unclaimed feature. Moreover, in *Rivera*, the specification described the filter packaged in a separate pod distinct from the container as essential to the invention because it was "fundamental to the problem and solution taught in the specification," without which the invention would not work. *See Rivera*, 857 F.3d at 1320-21. Thus, the patent's disclosure in *Rivera* was narrowly limited to an invention in which the pod and container are distinct components. *See id*. at 1321. Here, however, the inventors did not regard the location of the structural bridge relative to the computing device as essential to the invention, and, as discussed above, included discussion broad enough to cover a structural bridge that is internal to the computing device.

Similarly, in *ICU Medical*, the patent specification narrowly described an invention requiring a spike to pierce a seal in an intravenous medicine delivery setup, but later-filed claims eliminated the spike requirement. *See ICU Medical*, 558 F.3d at 1377. Here, by contrast, the inventors did not limit the invention to requiring a structural bridge that is external to the computing device, but instead included language in the specification that applies equally to an internal structural bridge. Thus, the '393, '119, and '453 patents' disclosures here are not narrowly limited like the patent's disclosures in *Rivera* and *ICU Medical*.

Finally, the disclosures of the '393, '119, and '453 patents are each fully enabling with respect to the claimed combination of "structural bridge" and "computing device." *See* CX-0182C, Singhose Rebuttal WS at Q/A 462-465; CDX-0003C at 31. These factors underlying the evaluation of the adequacy of the disclosure, *see Ariad*, 598 F.3d at 1351-52, all support a finding that the '393 patent and its priority patents provide adequate written description support for the claimed combination of "structural bridge" and "computing device."

Compl. Br. at 153-58.

The Staff argues, in part:

Nintendo argues that Gamevice lacks written description for a new "computing device" with an integrated "structural bridge." *See* Resps. P.H. Br. at 112-118. This argument is devoid of merit. It misstates Gamevice's arguments, as Gamevice has repeatedly explained. Compl. P.H. Br. at 147. In addition, it ignores the claim construction positions of the parties. *See* JX-0014 (Joint Claim Construction Statement). And finally, given the numerous embodiments disclosed and the inventions claimed in parent U.S. Patent No. 9,126,119 ("the '119 patent") that include both "a computing device" and "a structural bridge," the '119 patent clearly provides sufficient written description for whatever those terms would have meant to one of ordinary skill in the art at the time of invention. *See* Compl. P.H. Br. at 147-150. What Nintendo is really arguing is that the claims should be limited

> to the preferred embodiments. But that is improper. *See Thorner v. Sony Computer Entertainment America, LLC*, 669 F.3d 1362, 1368 (Fed. Cir. 2012) ("*Thorner*") ("It is … not enough that the only embodiments, or all of the embodiments, contain a particular limitation. We do not read limitations from the specification into claims; we do not redefine words.").

Staff Br. at 95.

The administrative law judge finds that Nintendo has not shown by clear and convincing evidence that the asserted claims lack adequate written-description support based on the alleged lack of description of an embodiment where the accused structural bridge is integrated with, and internal to, a computing device. Indeed, the claim term "structural bridge" is construed to mean "a physical apparatus that connects other components."

Nintendo argues that there is no express disclosure of a structural bridge within, or as part of, a computing device in any of the patents in this family, and that the structural bridge is always depicted and described as a component of the gaming accessory. *See* Resps. Br. at 102-06. As construed above, the '393 patent and its priority applications each provide support for the claimed "structural bridge" as construed above to mean "a physical apparatus that connects other components." *See, e.g.*, JX-0001 ('393 patent) at Abstract, col. 1:, lns. 49-54, col. 4, ln. 61 – col. 5, ln. 2, col. 11, lns. 42-49. Hence, the '393 patent provides adequate written description support for the claimed combination of a "structural bridge" and a "computing device." *See id.*

Furthermore, the '119 and '453 priority patents each disclose a structural bridge that is "a physical apparatus that connects other components." *See, e.g.*, RX-0219 ('119 patent) at col. 2, ln. 64 – col. 3, ln. 5, col. 3, lns. 34-42; RX-0228 ('453 patent) at Abstract, col. 1, lns. 31-37, col. 3, lns. 59-67, col. 4, lns. 30-38, col. 11, lns. 17-22, col. 11, lns. 32-41.

The administrative law judge thus finds that Nintendo has not shown by clear and convincing evidence that the asserted claims of the '393 patent are invalid for inadequate written description.

2. "Structural Bridge" and "Confinement Structures Interacting with a Computing Device" Without Having "Fastening Mechanism"

Nintendo argues, in part:

> Claims 1–4, 6–7, and 17–18 also lack adequate written-description support because they are directed to combination of a structural bridge and a pair of confinement structures interacting with a computing device, while omitting an adjustable fastening mechanism. Gamevice only disclosed possession of the claimed combination with an adjustable fastening mechanism, and removal of that limitation has broadened the claims beyond the written description.
>
> Only a single embodiment with the recited combination of a structural bridge and a pair of confinement structures interacting with the computing device is disclosed in the specification: communication port 310. *E.g.*, RX-228, Figs. 16–25 and text; *see* RX60C, Q438–62, 104–12, 163–65, 171–86; RX-1824C, Q141–46, 304–05; *see* Sections 10.6–10.7. This Communication Port Accessory "provides a … pair of confinement structures 316, which are preferably adjacent to and confining, the computing device 302." RX-228, 9:1–5. That same communication port (310) is further depicted and described as having "fastening mechanism 320," *id*., 9:23–25, and "includ[ing] a structural bridge 322, securing the pair of confinement structures 316, one to the other" via a solid connection 324 and slip fit 326, *id*., 9:29–36. The specification proceeds to teach in the key passage:
>
> > Operation of the fastening mechanism 320, facilitates an expand and contract of the distance between the pair of confinement structures 316. The expansion and contraction of the distance between the pair of confinement structures 316, facilitates placement of the computing device 302 between the pair of confinement structures 316, the application of sufficient compressive load being placed on the computing device 302 to securely hold the computing device between the pair of confinement structures 316, and an ability to remove the compressive load and allow removal of the computing device from the communication port 310.
>
> *Id*., 9:44–55.
>
> As the disclosure illustrates, this is not a situation where the patentee briefly mentioned an unimportant component in the specification and did not recite it in a

claim. *See, e.g., ScriptPro, LLC v. Innovation Assocs., Inc.*, 762 F.3d 1355, 1360 (Fed. Cir. 2014) (finding question of material fact regarding written description support where the specification "positively suggests that [the omitted elements] are an optional, though desirable, feature of the contemplated [combination]"). Instead, the omitted fastening mechanism is the only component of the Communication Port Accessory (the sole description of the claimed combination) that is taught to be capable of achieving the claimed "combination" and "interaction" between the confinement structures and the computing device. RX60C, Q106–12, 163–65, 171–86, 445, 459–62; RX-1824C, Q141, 143, 304–05; *see* Sections 10.6–10.7. This is not disclosure of the recited combination, which lacks the fastening mechanism. *Id*.

Again, "the specification fails to teach a potential configuration of elements" that is now claimed. *Rivera*, 857 F.3d at 1322–23. For example, in *D Three Enterprises, LLC v. SunModo Corp.,* 890 F.3d 1042, 1050 (Fed. Cir. 2018) ("*D Three II*"), the Federal Circuit held that a claimed assembly for mounting an object using any generic bracket lacked written description support because that combination was only disclosed with an omitted W-bracket in the specification. It did not matter that the specification also disclosed other attachment brackets, that the W-bracket embodiment was preferred (not mandatory), or that the specification noted a POSA "will recognize certain modifications, permutations, additions and sub-combinations" "are within the[claims'] true sp[i]rit and scope:" the specification "in no way contemplate[d] the use of other types of attachment brackets in [the claimed] assembly," and thus the claims lacked adequate written description support. *Id*. at 1050–51 (citation omitted); *D Three I*, 2017 WL 1023389, at *10. The same conclusion was reached in *ICU Medical, Inc. v. Alaris Medical Systems, Inc.*, 558 F.3d 1368, 1378–79 (Fed. Cir. 2009), where the specification disclosed a pre-slit medical device valve (with a spike), which a POSA would have understood could be operated without the spike, but "figures and descriptions that include spikes [do not] somehow demonstrate that the inventor possessed a medical valve that operated without a spike." *See Rivera*, 857 F.3d at 1323.

Just like the omitted W-bracket in *D Three II*, the specification "in no way contemplate[s] the use of other types of attachment [components]" to achieve the claimed combination, 890 F.3d at 1050–51—only the fastening mechanism is described in that way. RX-60C, Q165, 171, 180, 186, 443–44, 459–61; RX-1824C, Q142–46. And, just like the omitted spike in *ICU Medical*, "figures and descriptions that include [a fastening mechanism do not] somehow demonstrate that the inventor possessed [the claimed combination] that operated without a [fastening mechanism]," 558 F.3d at 1378. RX-60C, Q457–58; RX-1824C, Q142–46. The adjustable fastening mechanism is an unrecited component that is taught to be an important component of the claimed combination, and cherry-picking disclosure of individual components (a structural bridge and confinement structures, or just confinement structures) is inadequate written description support for the recited,

but undisclosed, combination omitting the fastening mechanism, *see Rivera*, 857 F.3d at 1322–23; *Ariad*, 598 F.3d at 1348. RX-60C, Q165, 171, 180, 186, 443–44, 459–61; RX-1824C, Q142–46.

* * *

In addition to Gamevice's legally erroneous arguments addressed in Section 18.3, Gamevice also relies on disclosure unique to the '119 patent as supposedly providing written-description support. CPBr.153–54 (relying on RX-219, 1:16–35 (Summary of Invention); RX-220.240–41 ('119 patent claims-as-filed)); RX-60C, Q446–53. The unique-to-the '119 patent disclosure fails for two reasons. First, this unique disclosure only describes an alleged embodiment with "confinement structures," and not the claimed "combination" requiring both "confinement structures" and a "structural bridge": as explained above, that combination is only disclosed as part of the Communication Port Accessory, which has an omitted fastening mechanism. Second, while it is *necessary* that the '119 patent provide adequate written description, it is not *sufficient*: Every single patent application in the priority chain must independently provide adequate written description, otherwise there is a break in the chain, *Hogan*, 559 F.2d at 609 (holding that disclosure missing from intervening application severed the priority chain). The above disclosure is absent from the later-filed applications, RX-60C, Q446–53; *compare, e.g.*, RX-228, *with* RX-219, and cannot satisfy the requirements of 35 U.S.C. § 120 and § 112 for those later patent applications.

As for non-unique disclosure—disclosure shared by the patent applications in the family—Gamevice argues that there is an alternative embodiment of communication port 310 that only has "confinement structures," CPBr.154–56 (citing RX-219, 7:61–64). Again, that is not disclosure of the claimed "combination" (further requiring a structural bridge), RX-60C, Q455–62; *see also* JX-1, (54) ("Game Controller with Structural Bridge"), and Gamevice cannot isolate a single sentence from the rest of the disclosure to establish adequate written description. *See Ariad*, 598 F.3d at 1348 (reaffirming that where "the specification provide[s] no guides or 'blaze marks' to single out" the claimed combination from a laundry list of possibilities, that is inadequate under § 112). Staff points to the Figure 1 embodiment, and particularly the specification's disclosure that the Figure 1 allows the "computing device 102 [to] nest[], such that the computing device 102 is confined by the u-shaped structure 128…." JX-1, 5:25–28. But this disclosure has nothing to do with confinement structures or a structural bridge, and both Gamevice's and Nintendo's technical experts agree that this disclosure is not directed to the claimed combination. CX-1C, Q107; RX-60C, Q90–94.

A POSA would only understand the entire disclosure to show possession of the recited combination with a fastening mechanism, RX-60C, Q455–58, and thus the claims omitting the fastening mechanism lack written description support.

Resps. Br. at 107-10 (footnotes omitted).

Gamevice argues, in part:

> Nintendo incorrectly argues that the disclosure of the '393 patent and '119 priority patent limits the way in which the claimed "pair of confinement structures" is secured to the "structural bridge" to one that uses a fastening mechanism. Because claims 1-8 and 16-18, however, do not require a fastening mechanism, Nintendo argues, the claims are not supported by the supposedly limited disclosure of the '393 and '119 patents.
>
> * * *.
>
> Moreover, contrary to Nintendo's position, the fastening mechanism does not facilitate any "clamping" by the confinement structures of the computing device. Indeed, there is no description of "clamping" anywhere in the '119 or '393 patents. In this regard, Nintendo improperly attempts to insert a "compressive load" requirement from a preferred embodiment of the specification into Gamevice's proposed construction of "[a pair of] confinement structures." *See* CX-1082C at Q/A 483-485. Instead, the fastening mechanism 320 facilitates an *unclaimed* feature—"an expand and contract of the distance between the pair of confinement structures 316" in order to "allow removal of the computing device from the communication port 310." CX-0088 at 8:43-45. It is not required to perform the claimed limitation of "the pair of confinement structures interacting with the computing device." *See* CX-0182C at Q/A 476-478. Finally, Dr. Stern's claim construction position on that the claimed "interacting" refers to *electronic*, not mechanical interaction directly contradicts his and Nintendo's position that a fastening mechanism is required to perform the claimed "interacting."
>
> Accordingly, the '393 and '119 patents do not narrowly describe the invention as limited to embodiments requiring fastening mechanism 320. *See Therasense*, 593 F.3d at 1295-96; *Callaway*, 576 F.3d at 1346–47; *Halliburton*, 514 F.3d at 1251; *Cordis*, 339 F.3d at 1357. Accordingly, this case is readily distinguishable from the *Gentry*-type of cases that Nintendo cites. *See Gentry Gallery, Inc. v. Berkline Corp.*, 134 F.3d 1473, 1475 (Fed. Cir. 1998); *Cisco Sys., Inc. v. Cirrex Sys*., LLC, 856 F.3d 997, 1007-08 (Fed. Cir. 2017); *Rivera*, 857 F.3d at 1322-23; *Anascape, Ltd. v. Nintendo of Am., Inc*., 601 F.3d 1333, 1335-40 (Fed. Cir. 2010); *ICU Medical*, 558 F.3d at 1377-79.
>
> *Gentry* presented an exceptional circumstance that led to a finding of lack of written description. *See Amgen Inc. v. Hoechst Marion Roussel, Inc.*, .314 F.3d 1313, 1333-34 (Fed. Cir. 2003) (clarifying the *Gentry* Court's holding). The *Gentry* patent clearly described the scope of its invention narrowly, which limited permissible claim breadth. It clearly described the invention as "the placement of reclining controls on a central console on a unit of a sectional sofa." *Id. at* 1333 (emphasis in original). According to the *Gentry* patent, this was "the only possible location" of the controls, and any variation was "outside the stated purpose of the invention." *Id. at* 1475; *Amgen*, 314 F.3d at 1333. But while the *Gentry* patent's

description unambiguously identified the invention as locating the controls on the console, its asserted claims did not limit the location. *Gentry*, 134 F.3d at 1479. Thus, the written description did not support the full breadth of the claims. *Id. at* 1480.

In this case, there is no evidence in the '119 or '393 patents that the invention is limited to securing the "pair of confinement structures" to the "structural bridge" with fastening mechanism 320. CX-0182C at Q/A 476. There is no teaching that the fastening mechanism is the only possible way to secure the "pair of confinement structures" to the "structural bridge." (*See id*.) There is no teaching that securing the "pair of confinement structures" to the "structural bridge" without a fastening mechanism is outside the stated purpose of the invention. (*See id*.) There is simply no description unambiguously identifying the invention as fastening mechanism 320 securing the "pair of confinement structures" to the "structural bridge." (*See id*.) Accordingly, *Gentry* and its progeny are inapplicable here.

Rather, this case falls within *ScriptPro*'s reasoning. *See ScriptPro LLC v. Innovation Associates, Inc.*, 833 F.3d 1336, 1314-42 (Fed. Cir. 2016) (rejecting an argument based on *Gentry* and reversing grant of summary judgment on written description). In *ScriptPro*, even though the patent's written description focused on embodiments that sorted prescription containers by patient-identifying information, the Federal Circuit held that the invention was not so limited because the patent disclosed "multiple problems that the invention solves" and "while some, indeed many, of these solved problems involve sorting prescription containers by patient-identifying information, not all of them do." *ScriptPro*, 833 F.3d at 1340-41. The Court also found it significant that "the original claims filed as part of the application . . . were not limited to sorting and storing prescription containers by patient-identifying information." *Id. at* 1341. Based on these facts, the Federal Circuit held the asserted claims were not invalid for lack of written description, even though they had no limitation requiring sorting prescription containers by patient-identifying information. *See id. at* 1342 ("Not every claim must contain every limitation or achieve every disclosed purpose."). Here, as in *ScriptPro*, the '119 patent's identification of fastening mechanism 320 as just one of several preferred options, and the fact that the original claims of the application were not limited to a fastening mechanism, indicates that the inventions disclosed the '119 patent's description are not limited to the use of a fastening mechanism. Thus, just like in *ScriptPro*, the disclosure of the '119 patent fully supports the '393 patent's claims.

Nintendo's other cited cases are inapposite. Nintendo argues that the claims lack a required limitation that the specification calls for, which is a *Gentry*-type argument. The other cases it cites do not involve this fact pattern, but instead involve an actually-recited but overbroad limitation. They are therefore irrelevant and inapposite to Nintendo's position, and distinguishable in any event. For example, in *D Three Enterprises, LLC v. Rillito River Solar LLC*, 15-CV-1148,

> 2017 WL 1023389, at *6 (D. Colo. Mar. 15, 2017), *aff'd*, 890 F.3d 1042 (Fed. Cir. 2018), the patent claims recited a generic attachment bracket as part of a washer-less assembly. Unlike the '119 patent here, which describes several preferred options including the solid connection 324, slip fit 326, and fastening mechanism 320, the priority application in *D Three* "disclose[d] only one invention that lack[ed] a washer." 2017 WL 1023389, at *8. In that disclosure, the only disclosure of an attachment bracket 1700 was a specific one with W shaped prongs and face seat. Moreover, unlike Gamevice here, the patentee there did not attempt to show that the asserted claims' generic attachment brackets were supported by the specific bracket 1700 assembly, which led the *D Three* Court to hold that the claimed generic attachment bracket was not supported by the priority application's disclosure of the specific bracket 1700 assembly. *See id*. Here, however, the asserted claims are fully supported by the examples provided in the '119 and '393 patents. Thus, *D Three*'s holding is inapplicable to this case.
>
> Thus, the scope of embodiments described in the '393 and '119 patents is broader than the specific preferred embodiment including the optional fastening mechanism 320, and they fully support the claims as presented in the '393 patent.

Compl. Br. at 161-68.

The Staff argues, in part:

> Second, Nintendo argues that the '393 patent lacks written description support for a "structural bridge" and "confinement structures interacting with a computing device" without having "fastening mechanism." *See* Resps. P.H. Br. at 118-122. Again, Nintendo is wrong. It cannot be reasonably disputed that there is written description support for a "structural bridge" and for "confinement structures interacting with a computing device." *See id.* Indeed, the priority '119 patent discloses both. *See* Compl. P.H. Br. at 153-160. What Nintendo is really arguing under the guise of written description is that the "fastening mechanism" is a necessary limitation. The Staff disagrees. The '119 priority patent discloses various embodiments without "fastening mechanisms." *See* Compl. P.H. Br. at 153-160. Clearly, a "fastening mechanism" is not a critical element. One skilled in the art would readily understand that in practicing the invention it is unimportant as to whether a fastening mechanism is used. Accordingly, there written description support for claims without fastening mechanisms. *See* Compl. P.H. Br. at 153-160. Again, it appears what Nintendo is really arguing is that the claims should be limited to the preferred embodiments. But that is improper. *See Thorner*, 669 F.3d at 1368 ("It is … not enough that the only embodiments, or all of the embodiments, contain a particular limitation. We do not read limitations from the specification into claims; we do not redefine words.").

Staff Br. at 95-96.

The administrative law judge finds that Nintendo has not shown by clear and convincing evidence that claims 1-4, 6-7, and 17-18 also lack adequate written-description support based on the alleged lack of an adjustable fastening mechanism.

Nintendo argues that the specification discloses only an embodiment with the recited combination of a structural bridge and a pair of confinement structures interacting with the computing device, and that the omitted fastening mechanism is the only component of this Communication Port Accessory that is taught to be capable of achieving the claimed "combination" and "interaction" between the confinement structures and the computing device. *See* Resps. Br. at 107-08. However, Nintendo essentially argues that the claims should be limited to the preferred embodiments.

First, the '393 and '119 patents explicitly disclose other preferred options including solid connection 324 and slip fit 326. *See* CX-0182C (Singhose RWS) at Q/A 474-79. The '119 patent's disclosure is not limited to a single embodiment. *See id.* at Q/A 427-36, 486-87. The '119 patent describes "[p]referably, [an] alternative combination 300 further includ[ing] a communication port 310, interacting with the computing device 302." CX-0088 ('119 patent) at col. 7, lns. 61-64. It further states that, "[p]referably, the communication port 310, further provides a pair of confinement structures 316, the pair of confinement structures 316, which are preferably adjacent to and confining, the computing device 302 on at least two opposing sides of the plurality of sides 304 of the computing device 302." *Id.* at col. 8, lns. 1-6. This description is consistent with the summary of the invention, which does not mention a fastening mechanism. Only after providing this description does the specification later mention a fastening mechanism for the first time as part of another preferred embodiment. *See id.* at col. 8, lns. 22-27. Thus, the '119 patent describes multiple preferred embodiments.

Second, the ’119 patent describes the fastening mechanism as merely one further feature of one preferred embodiment. *See id.* at col. 8, lns. 22-24 (“FIG. 16 further shows that in a preferred embodiment, the communication port 310, further includes a fastening mechanism 320.”); CX-0182C (Singhose RWS) at Q/A 476.

Third, the ’119 patent describes that confinement structures can be used with other components such as solid connection 324 and slip fit 326 to achieve the limitations claimed in the ’393 patent, without any fastening mechanism. *See id.* at Q/A 477-78. According to the ’119 patent, the only required components for the “the pair of confinement structures [to] interact[] with the computing device” are the “pair of confinement structures” and the “computing device” themselves. The rest are optional components that help secure the structural bridge to the confinement structures, and do not themselves interact with the computing device. *See* CX-0088 at col. 8:, lns. 30-37. Solid connection 324, slip fit 326, and fastening mechanism 320 all operate between the structural bridge and the confinement structures to indirectly allow the confinement structures to interact with the computing device.

The administrative law judge thus finds that Nintendo has not shown by clear and convincing evidence that the asserted claims of the ’393 patent are invalid for inadequate written description.

3. Communication Links on Both Confinement Structures

Nintendo argues, in part:

> Claims 1–4, 6–7, and 17–18 also lack written description in the priority patent applications because they require two “communication links” (one for each confinement structure) that are in “electrical communication” and “configured for electronic communication with the computing device [or CPU],” but no such “communication link” is disclosed in any of the patents. RX-60C, Q463–79; RX-1824C, Q529; RX-1824C.A, Q529.

The specification discloses a fundamentally different way of communicating between the confinement structures of the gaming accessory and the computing device than what is now claimed. RX-60C, Q468–73. The specification discloses a gaming accessory with a pair of control modules (part of an input device), one on each of a pair of confinement structures. RX-228, 9:10–15. When those modules are operated (*e.g.*, by pressing a button), they send signals received by signal input lands 342 on the confinement structure (communication between the input device and confinement structures). *Id*., 9:65–10:2. These signals are then relayed between the control modules via a communication link 312 (*e.g.*, wire connection 314) (communication between control modules). RX-228, 8:6–17, 8:18–20, 8:64–66. Then, the signals are transformed (via an undisclosed algorithm) and sent from computing device interface feature 338 on one of the confinement structures to the computing device (communication between the interface feature on one confinement structure and the computing device). RX-228, 9:56–62.

The mismatch between what is claimed (two communication links electronically/electrically communication with the computing device) and what is disclosed (a single communication link in communication between control modules) demonstrates the lack of written description for two reasons: (1) there is only a single communication link disclosed in each embodiment, not one on each confinement structure as claimed, RX-60C, Q463, 474, and (2) computing device interface feature 338 (also on a single confinement structure) is the only component described as being in communication with the computing device, not the disclosed communication link, RX-60C, Q474, 476. Thus, there is inadequate written-description support. RX-60C, Q468–79.

Gamevice does not contend that any of the components labeled "communication link" (*e.g.*, 270/312/314) in the specification provide written-description support for the recited "communication link;" instead, it argues that a different component, signal input lands, provides the relevant disclosure. CPBr.150–53. But if the inventors wanted to claim "signal input lands," they would not have claimed "communication links," particularly where the specification uses these different terms to refer to different components on different parts of the invention performing different functions. *Comaper Corp. v. Antec, Inc.*, 596 F.3d 1343, 1348 (Fed. Cir. 2010) ("There is an inference … that two different terms used in a patent have different meanings."). Thus, Gamevice has failed to establish entitlement to an earlier priority date as no written description support has been identified for the recited "communication links." And anyway, identifying signal input lands as support for the recited "communication links" spawns more written-description problems.

Significantly, the inventors were working on a clamp-on accessory for smartphones and tablets, like an iPhone or iPad, and such devices have only a single physical input—for example, a Lightning Port on an iPhone. RX-60C, Q468–72; RX-1824C, Q464–68. Thus, the inventors needed a way to get information from

one side of the game controller to the other and into the single interface connection with the smartphone or tablet. *Id*. Hence, the inventors disclosed a communication link that brings communications from one side to the other and a single interface feature (338) that sends communications from the clamp-on accessory to the computing device. *Id*. Yet, the claims now recite something entirely different. The claims recite two separate communication links each of which communicate directly with the computing device. *Id*. Gamevice and the named inventors did not invent such a device, they did not disclose such a device, and they did not possess such a device. *Id*. The claims are simply directed to a fundamentally different invention than what was disclosed.

Moreover, nowhere are the signal input lands described as sending signals to, or from, the computing device as required for the recited "communication link;" instead, they merely receive signals from the "input device 318" (*e.g.*, joysticks) and pass them to a communication link connecting the control modules. RX-228, 10:8–12 (only disclosing "signal input lands 342 for use in *receiving signals from the input device 318*"); RX-60C, Q475–77. Nonetheless, Gamevice argues these provide written description support because when the claim specifies communication between two particular components, it actually is referring to mere "indirect" electrical/electronic communication. That is inconsistent with the specification (using "by way of" when referring to such "indirect" pathways, Stern Tr. 503:15–504:15) and the claim language itself, which very specifically identifies the components that are to be in communication with one another (*e.g.*, the claims do not recite "electronic game control modules" to be configured to be in electronic/electrical communication with the computing device, yet they would be in such "indirect" communication because a button press must make its way to the computing device, JX-1, Figs. 6–7).

Resps. Br. at 111-13.

Gamevice argues, in part:

The '393 patent and the '119 and '453 priority patents provide adequate written description support for "communication links" comprised in the pair of confinement structures. Nintendo argues that there is no description of more than one communication link with the computing device as part of a pair of confinement structures. Contrary to Nintendo's position, the patents provide adequate written description support for the "communication link" claim limitations in claims 1 and 17. *See* CX-0182C, Singhose Rebuttal WS at Q/A 466.

As an initial matter, claims 1 and 17 do *not* limit "configured for electronic communication with the computing device" to only *direct* communications. Instead, these limitations also cover *indirect* communication of the communication links with the computing device. *See* JX-0001 at claims 1, 17; CX-0182C at Q/A 467. Similarly, the term "electronic communication" with the central processing unit in claims 19 and 21 are not limited to *direct* electronic

communication. *See* CX-0182C at Q/A 467; JX-0001 at Figs. 6-7; CDX-0003C at 32. Nor is there any requirement for independently communicating links, as Nintendo argues. *See* CX-0182C at Q/A 473. Similarly, there is no limitation recited in the claim that the claimed "computing device" has only one port. *See id*. Nintendo repeatedly imports limitations into the claims, either from the specification's preferred embodiments, or, even worse, that are found nowhere in the '393 patent. *See also* CX-0182C at Q/A 480-482.

Nintendo mistakes the specification's communication link 312 for the claimed "communication links." The specification's communication link 312, however, is not comprised in either of the pair of confinement structures 316, and thus does not map to the claimed "communication links" that are comprised in the pair of confinement structures.

Moreover, Nintendo misinterprets the specification and incorrectly identifies computing device interface feature 338 of Figs. 18 and 19 as the claimed "communication link," but this is also incorrect. Ironically, Nintendo argues that the signal input lands 342 that Gamevice identifies cannot be the claimed "communication links" because some other component (312) is labeled as a "communication link" in the specification, yet itself insists that the computing device interface feature 338 of Figs. 18 and 19 is a claimed "communication link." The Federal Circuit and its predecessors have repeatedly said that compliance with the written description requirement does not require description of the subject matter ultimately claimed "*in haec verba*," or "*in ipsis verbis*," or in other words, in the same words. *See, e.g.*, *Eiselstein v. Frank*, 52 F.3d 1035, 1038 (Fed. Cir. 1995); *In re Lukach*, 442 F.2d 967, 969 (C.C.P.A. 1971).

The correct "communication links," as recited in the claim, are signal input lands 342 of Figs. 19 and 20. *See* CX-0182C at Q/A 468. Signal input lands 342 satisfy all the relevant limitations of claims 1 and 17, and they provide adequate written description support for the claimed limitations. *See id. at* Q/A 469-472. First, both claims 1 and 17 recite that "each of the pair of confinement structures compris[es] a communication link." JX-0001 at claims 1, 17. As shown in Figs. 19 and 20, each of the pair of confinement structures 316 comprises signal input lands 342. *See* JX-0001 at Figs. 19-20; CX-0182C at Q/A 469; CDX-0003C at 33. Second, claims 1 and 18 recite that "each electronic game control module in electronic communication with the communication link of its corresponding confinement structure." JX-0001 at claims 1, 18. In this regard, the '393 patent teaches that each control module 252 of input device 318 is in electronic communication with the signal input lands 342 of its corresponding confinement structure 316. JX-0001 at 10:30-44; *see* CX-0182C at Q/A 470; CDX-0003C at 34. Third, claims 1 and 17 recite that "each of the communication links [is] configured for electronic communication" with the computing device or central processing unit. JX-0001 at claims 1, 17. These limitations cover both direct and indirect electronic communication. *See* CX-0182C at Q/A 471. Finally, claims 1 and 17 further recite "a passageway between the pair of confinement structures" that

> "promotes electrical communication" between the communication links and the computing device.
>
> The signal input lands 342 of each confinement structure 316 satisfy all of these claimed limitations. *See* CX-0182C at Q/A 472-473. Specifically, as shown in CDX-0003C at 35, or the right-hand side confinement structure 316, signal input lands 342 ("communication link," annotated in red) are configured for communicating signals from the right-hand side control module 252 ("electronic game control module," annotated in blue) via computing device interface feature 338 (annotated in green) to the central processing unit of computing device 302. *See* CX-0182C at Q/A 480-482. The passageway provided through slip fit 326 ("passageway," annotated in yellow) promotes electrical communication from signal input lands 342 to computing device interface feature 338, and ultimately to the central processing unit of computing device 302. *See* JX-0001 at Figs. 16, 18-19; CX-0182C at Q/A 473. Similarly, as shown in CDX-0003C at 36, for the left-hand side confinement structure 316, signal input lands 342 ("communication link," annotated in red) are configured for communicating signals from the left-hand side control module 252 ("electronic game control module," annotated in blue) via computing device interface feature 338 (annotated in green) to the central processing unit of computing device 302. *See* CX-0182C at Q/A 480-482. The passageway provided through solid connection 324 ("passageway," annotated in yellow) and the wired connection 314 inside it (also annotated in yellow) promote electrical communication from signal input lands 342 to computing device interface feature 338, and ultimately to the central processing unit of computing device 302. *See* JX-0001 at Figs. 16, 18, 20; CX-0182C at Q/A 473. Thus, the '393 patent fully supports all claimed limitations related to the "communication links." Because the '119 and '453 patents include identical disclosure to the '393 patent, they too fully support all claimed limitations in the '393 patent related to the "communication links."

Compl. Br. at 158-61.

The Staff argues, in part:

> Finally, Nintendo argues that there is no written description support for communication links on both confinement structures. Resps. P.H. Br. at 122-125. Again, Nintendo is wrong. There is nothing in the specification to justify limiting the invention to a single communication link, and using two communication links would achieve predictable results. *See* Compl. P.H. Br. at 150-153. Nintendo again appears to be arguing that the claims should be limited to the preferred embodiments. And that is still improper. *See Thorner,* 669 F.3d at 1368.

Staff. Br. at 96.

The administrative law judge finds that Nintendo has not shown by clear and convincing evidence that claims 1-4, 6-7, and 17-18 lack written description in the priority patent applications based on the alleged lack of "communication links" for each confinement structure that are in "electrical communication" and "configured for electronic communication with the computing device [or CPU]."

Nintendo argues that specification discloses a fundamentally different way of communicating between the confinement structures of the gaming accessory and the computing device. *See* Resps. Br at 111. However, Nintendo appears to argue that the claims should be limited to the preferred embodiments.

Nintendo first argues that the specification discloses a gaming accessory with a pair of control modules (part of an input device), one on each of a pair of confinement structures, and that, when those modules are operated, they send signals received by signal input lands 342 on the confinement structure (communication between the input device and confinement structures). *See id.* However, signal input lands 342 satisfy all the relevant limitations of claims 1 and 17, and these structures provide adequate written description support for the claimed limitations. *See* CX-0182C (Singhose RWS) at Q/A 469-72. As shown in Figs. 19 and 20, each of the pair of confinement structures 316 comprises signal input lands 342. *See* JX-0001 ('393 patent) at Figs. 19-20; CX-0182C (Singhose RWS) at Q/A 469. The '393 patent teaches that each control module 252 of input device 318 is in electronic communication with the signal input lands 342 of its corresponding confinement structure 316. JX-0001 ('393 patent) at col. 10, lns. 30-44; CX-0182C (Singhose RWS) at Q/A 470.

Nintendo further argues that the specification does not disclose that the signal input lands sending signals to, or from, the computing device as required for the recited "communication

link." *See* Resps. Br. at 112-13. It is argued the signal input lands receive signals from the "input device 318" (*e.g.*, joysticks) and pass them to a communication link connecting the control modules. *See id*. However, claims 1 and 17 recite that "each of the communication links [is] configured for electronic communication" with the computing device or central processing unit, which allows for both direct and indirect electronic communication. *See* CX-0182C (Singhose RWS) at Q/A 471. Moreover, signal input lands 342 are configured for communicating signals from the right-hand side control module 252 via computing device interface feature 338 to the central processing unit of computing device 302. *See* JX-0001 ('393 patent) at Figs. 16, 18-19; CX-0182C (Singhose RWS) at Q/A 473.

In summary, the administrative law judge finds that Nintendo has not shown by clear and convincing evidence that the asserted claims of the '393 patent are invalid for inadequate written description.

IX. Enforceability

A. *Kessler* Doctrine

Nintendo argues, in part:

> The *Kessler* doctrine bars assertions of infringement, against the same accused activity, after a prior final judgment (adverse to the patentee), on "essentially the same" claims. *In re PersonalWeb Techs. LLC*, 961 F.3d 1365, 1376–77 (Fed. Cir. 2020) (citation omitted). "[C]laims which are patentably indistinct are essentially the same," *SimpleAir, Inc. v. Google LLC*, 884 F.3d 1160, 1167, 1169 (Fed. Cir. 2018), and claims are "patentably indistinct" when the later asserted claim is "obvious over or anticipated by" the earlier defeated claim, *Sun Pharm. Indus., Ltd. v. Eli Lilly & Co.*, 611 F.3d 1381, 1385 (Fed. Cir. 2010) (citation and alteration in original omitted); *Perricone v. Medicis Pharm. Corp.*, 432 F.3d 1368, 1374 (Fed. Cir. 2005); MPEP § 804.II.B.
>
> There is no dispute that Nintendo defeated Gamevice's infringement assertions against the same accused activities/products in the 1111 Investigation. RX-64. And "[w]hile the Federal Circuit has held that 'decisions of the ITC involving patent issues have no preclusive effect in other forums,' *Texas Instruments, Inc. v. Cypress Semiconductor Corp.*, 90 F.3d 1558, 1569 (Fed. Cir.

1996), there is no doubt that the Commission's decisions can have preclusive effect in other actions here at the Commission." *Certain Wireless Devices with 3G and/or 4G Capabilities & Components Thereof*, Inv. No. 337-TA-868, Order No. 89, 2014 WL 261459, at *5 (Jan. 15, 2014) (collecting exemplary decisions); *Williston Basin Interstate Pipeline Co. v. FERC*, 165 F.3d 54, 65 (D.C. Cir. 1999) ("[The APA] requires treating like cases alike." (citation omitted)); 5 U.S.C. § 706. Because the evidence further establishes that the asserted claims from the '393 patent are patentably indistinct from the earlier defeated claims in the '498 and '713 patents, RX-59C, Q450–81, Gamevice's assertions of infringement are barred under *Kessler*.

* * *

The Federal Circuit has held that the filing of a terminal disclaimer (as Gamevice did here) is a "strong clue" (although not a presumption) that the claims are patentably indistinct because it "do[es] not lightly presume that patent applicants forfeit the right to alienate their patents, and in certain cases years of exclusivity, as a mere procedural expedient." *SimpleAir*, 884 F.3d at 1168. RX-59C, Q450–52; JX-2.399 (terminal disclaimer of '393 patent to '498 patent); RX-93.206 ('498 patent to '119 patent); RX-95.205 ('713 patent to '119 patent).

Claims 1–4, 6–7 of the '393 Patent are patentably indistinct from claim 1 of the '498 and of the '713 patents. In addition to the substantial, verbatim overlap between the language of the claims, *see* RDX-1.89 (RX-59C, Q461; comparing RX-92 ('498 patent), claim 1, with JX-1, claim 1); RDX-1.88 (RX-59C, Q456; RX-94 ('713 patent), claim 1; JX-1, claim 1), Dr. Cameron thoroughly explained how the minor differences in language between the claims do not render them patentably distinct. *Id*.; RX-59C, Q455–64. The only (relevant) disputed limitation that is found in the '393 patent claims, but not explicitly recited in defeated claims 1 of the '498 and '713 patents, is the term "electronic game control module." *See* CPBr.139–40. But simply adding "electronic game" onto the previously recited "control module" did not materially alter the scope of the claims. RX-59C, Q458, 463; *see Indivior Inc. v. Dr. Reddy's Labs., SA*, 752 F. App'x 1024, 1035 (Fed. Cir. 2018) (non-precedential). Indeed, Gamevice's own expert opined that the "control modules" recited in the defeated claims was understood to cover the "electronic game control modules" in the asserted claims. CX-182C, Q354 (citing RX-92, 9:6–10). The claims to such a small genus (control modules) render the later claims to one of the species (electronic game control modules) patentably indistinct, *see Abbvie Inc. v. Mathilda & Terence Kennedy Institute of Rheumatology Tr.*, 764 F.3d 1366, 1379 (Fed. Cir. 2014) ("[A] small genus may anticipate the species of that genus … [, thereby rendering the claims patentably indistinct]." (citation omitted)). Thus, claim 1 of the '393 patent is patentably indistinct from both claim 1 of the '498 patent, RX-59C, Q460–64, and claim 1 of the '713 patent, RX-59C, Q455–59, and Gamevice's assertions of infringement of those claims is barred under *Kessler*.

> Gamevice's assertions of infringement for claims 2–4 and 6–7 are also barred under *Kessler*: None of the additional limitations in the dependent claims render them patentably distinct, RX-59C, Q457, 462, 476, 480, 488; RX-1824C, Q37, and "[i]t is axiomatic that dependent claims cannot be found infringed unless the claims from which they depend have been found to have been infringed," *Wahpeton*, 870 F.2d at 1553.
>
> Under Gamevice's proposed constructions, claim 8 of the '393 patent is patentably indistinct from claim 16 of the '498 patent. RX-59C, Q465–69; RDX-1.90 (RX-59C, Q466; RX-92, claim 16; JX-1, claim 8). Gamevice's proposed construction of the terms in claim 8 merely require a structural bridge that fits a computing device, which is patentably indistinct from the scope of claim 16 of the '498 patent. *Id*. Moreover, the additional recited limitations in claim 8 would have been obvious in light of the limited number of dimensions of a "computing device" (length greater than width) and the well-known use of "voids" in the art to assist with heat dissipation and other functionalities of the claimed gaming accessory. RX-59C, Q468–69.
>
> Under Gamevice's proposed constructions, claim 12 of the '393 patent is patentably indistinct from claim 16 of the '498 patent. RX-59C, Q470–73; RDX-1.91 (RX-59C, Q471; RX-92, claim 16; JX-1, claim 12). As Dr. Cameron explained, Claim 12 merely adds obvious variations of the previously claimed combination of claim 16, including a patentably indistinct way of connecting "control modules" to the "structural bridge," which would have been a known predictable solution to the mechanical problem addressed by the claim. *Id*. Indeed, Gamevice argues that the mechanical arrangement shown in Figure 14—embodying claim 16 of the '498 patent and describing the "retention member"—is equivalent to the "retention mechanism" recited in claim 12 of the '393 patent, further confirming that these claims are patentably indistinct. *Id*.

Resps. Br. at 114-17 (footnotes omitted).

Gamevice argues, in part:

> Nintendo failed to establish that Gamevice's assertions are barred under the *Kessler* doctrine or collateral estoppel because it failed to provide a claim-by-claim analysis to show that the '393 patent claims are essentially the same as the claims that were at issue in the 1111 Investigation and the '119 IPR. For its "analysis" in this section, Nintendo referred to Appendices C-Q, which have been stricken from its pre-hearing brief for violating the Ground Rules. *See* Order No. 13. As a result, it waived any substantive claim-by-claim analysis necessary to prove that Gamevice's assertions are barred. But even if Appendices C-Q were somehow preserved in this investigation, Nintendo's arguments should be rejected because the '393 patent claims are not essentially the same as the claims that were at issue in the 1111 Investigation and the '119 IPR for the reasons explained below. CX-0182C, Singhose Rebuttal WS at Q/A 338-343.

Nintendo's arguments on the *Kessler* doctrine are flawed and misleading. Nintendo relies primarily on the Federal Circuit's *SimpleAir* decision, but that decision actually supports Gamevice's argument that the *Kessler* doctrine should not apply in this investigation. In *SimpleAir*, the Federal Circuit held that claim preclusion does not automatically apply to continuation patents and reissue patents because they may have broader claims giving rise to new causes of action compared to a previous litigation. *SimpleAir, Inc. v. Google LLC*, 884 F.3d 1160, 1166-67 (Fed. Cir. 2018). Indeed, the '393 patent is a continuation patent of the '498 and '713 patents and has claims that are broader than the claims asserted in the 1111 Investigation, giving rise to new causes of action. *See id*. For example, unlike the claims asserted in the 1111 Investigation, all asserted claims in this investigation do not recite the "fastening mechanism" limitation, rendering the claims broader. Nintendo cannot argue otherwise because its invalidity challenge for lack of written description is based on the (incorrect) assumption that the asserted claims missing the "fastening mechanism" limitation are broader than what the specification discloses. *See* RPreHB at 119-20.

Nintendo also wrongly argues that the asserted claims of the '393 patent are patentably indistinct from the claims in the 1111 Investigation because Gamevice terminally disclaimed the '393 patent over the '498 patent. As the evidence showed, Nintendo has not shown that the claims in the 1111 Investigation are "essentially the same" as the asserted claims in the 1111 Investigation, which "requires comparing the patents' claims along with other relevant transactional facts." *SimpleAir*, 884 F.3d at 1168; CX-0182C at Q/A 340-41. Moreover, *SimpleAir* undercuts Nintendo's argument, once again, because it expressly states that filing of a terminal disclaimer cannot be used to show that a terminally-disclaimed continuation patent presents the same cause of action to invoke collateral estoppel and the *Kessler* doctrine. *See SimpleAir*, 884 F.3d at 1167-69; see also *Ventana Med. Sys., Inc. v. Biogenex Laboratories, Inc.*, 473 F.3d 1173, 1184 n.4 (Fed. Cir. 2006) (citing *Quad Env't Techs. Corp. v. Union Sanitary Dist.*, 946 F.2d 870, 874 (Fed. Cir. 1991)).

Nintendo also failed to carry its burden of proof because it failed to properly compare the claims of the '393 patent and the earlier patents in view of the parties' proposed constructions. As the evidence showed, each of the differences in the claims considered individually or as a whole renders the '393 patent claims patentably distinct from the claims of the earlier patents. The evidence also showed that a POSITA would not have been able to modify the inventions of the earlier patents to arrive at the invention of the '393 patent without hindsight bias. CX-0182C at Q/A 342-44.

Compl. Br. at 141-43 (footnote omitted).

The Staff argues that the asserted claims of the ’393 patent are patentably distinct from the ’713 patent, the ’498 patent, and the ’119 patent, and so Nintendo has not shown that Gamevice claims are barred based on the Kessler doctrine. *See* Staff Br. at 100.

The *Kessler* doctrine is rooted in *Kessler v. Eldred*, 206 U.S. 285, 290 (1907), in which the Court, *inter alia*, held that a defendant’s rights under a final decree in his favor rendered by a federal court in a patent infringement suit were violated by the action of the complainant who later filed a bill against one of the defendant’s customers for an alleged infringement of the patent on account of the use or sale of the same article passed upon in the prior suit. As discussed above, the doctrine, as applied by the Federal Circuit, “preclude[s] assertions of a patent against even post-judgment activity if the earlier judgment held that ‘essentially the same’ accused activity did not infringe that patent.” *SimpleAir, Inc. v. Google LLC*, 884 F.3d 1160, 1170 (Fed. Cir. 2018). The rationale is that “the accused activity, held in the earlier case not to infringe the patent, acquires a limited trade right to continue being practiced ‘without molestation’ by the patentee or its privies.” 884 F.3d at 1170 (citing *Kessler*, 206 U.S. at 290).

The administrative law judge finds that Nintendo has not shown that claims 1-4 and 6-7 of the ’393 patent are patentably indistinct from claim 1 of the ’498 and of the ’713 patents. Nintendo argues that there is substantial, verbatim overlap between the language of the claims, and that the minor differences in language between the claims do not render them patentably distinct. *See* Resps. Br. at 114-15. However, unlike claim 1 of the ’713 patent, claim 1 of the ’393 patent does not recite any “fastening mechanism” or “each of the pair of control modules providing input module apertures, each input module aperture secures an instructional input device, wherein said input module apertures are adjacent each of the at least two opposing sides of the sides of the computing device.” As such, the two claims are not “essentially the same”

because they are directed to different embodiments. *See* CX-0182C (Singhose RWS) at Q/A 347-48. Further distinctions include "rigid" structural bridge, and the electronic display screen. *See id.* at Q/A 345.

Moreover, claim 1 of the '393 patent is patentably distinct from claim 1 of the '498 patent for the same reasons as explained above in connection with claim 1 of the '713 patent with respect to the "fastening mechanism" and "computing device" limitations. *See id.* at Q/A 351-55.

Nintendo further argues that claim 8 of the '393 patent is patentably indistinct from claim 16 of the '498 patent. *See* Resps. Br. at 116. However, claim 8 recites "the structural bridge configured for adaptation to a computing device," which requires adjustability. Claim 16 of the '498 patent does not require adjustability in the structural bridge, and therefore, fails to render claim 8 obvious. *See id.* at Q/A 356-57. Second, claim 8 recites "the computing device having a length greater than its width, the structural bridge accommodates the length of the computing device," which does not appear in claim 16 of the '498 patent. *See id.* at Q/A 358. Third, claim 16 of the '498 patent fails to disclose the "void" limitation in claim 8. *See id.* at Q/A 359.

Nintendo further argues that claim 12 of the '393 patent is patentably indistinct from claim 16 of the '498 patent. However, claim 12 recites "a retention mechanism . . . the retention mechanism providing at least a boss, an interaction of the spring member of the restraint with the boss of the retention mechanism," which does not appear in claim 16 of the '498 patent. Nintendo fails to show how the "fastening detent" and "retention member" limitations in claim 16 are essentially the same as "restraint" and "retention mechanism." *See id.* at Q/A 366. Second, claim 12 recites "electronic game control modules," which is different from and narrower than the "pair of control modules" recited in claim 16 of the '498 patent. *See id.* at Q/A

364-65. Third, there are several limitations in claim 16 of the '498 patent that do not appear in claim 12 of the '393 patent.

The administrative law judge thus finds that Gamevice's claims are not barred under the *Kessler* doctrine.

B. Issue Preclusion

As discussed above, collateral estoppel, or issue preclusion, shields a defendant from having to litigate issues that have been fully and fairly tried in a previous action and decided adversely to a party. *Pharmacia & Upjohn Co. v. Mylan Pharm., Inc*., 170 F.3d 1373, 1379 (Fed. Cir. 1999).

Nintendo argues, in part:

> "A party is collateral estopped from relitigating an issue[, here, the validity of claims 1–4, 6–8, and 17–18,] if: (1) a prior action presents an identical issue; (2) the prior action actually litigated and adjudged that issue; (3) the judgment in the prior action necessarily required determination of the identical issue; and (4) the prior action featured full representation of the estopped party." *VirnetX Inc. v. Apple, Inc.*, 909 F.3d 1375, 1377 (Fed. Cir. 2018). Each of these elements are met. *See* RX-1731 (IPR2018-01521 Final Written Decision); RX-1732 (IPR2018-01522 Final Written Decision) (prior final judgments resolving issue of invalidity that was actually litigated and was necessary for the determination, and no dispute that Gamevice had a full opportunity to litigate validity). In their prehearing briefs, Gamevice and Staff have only disputed whether the issues are "identical" and so have waived any argument as to whether the other elements of issue preclusion are satisfied. *See generally* CPBr., SPBr.
>
> Although the claim language in the '119 and '393 patents are not identical, the "differences between the unadjudicated ['393] patent claims and adjudicated ['119] patent claims do not materially alter the question of invalidity," *Ohio Willow Wood Co. v. Alps South, LLC*, 735 F.3d 1333, 1342 (Fed. Cir. 2013). As explained above, the '393 patent is terminally disclaimed, via the '498 patent, back to the '119 patent: a "strong clue" that the claims are patentably indistinct. *SimpleAir*, 884 F.3d at 1168. As Dr. Cameron testified (and illustrated via her demonstratives), any differences between claim 1 of the '119 patent and claim 1, RDX-1.94 (RX-59C, Q487, RX-219, claim 1; JX-1, claim 1); RX-59C, Q486–94, claim 8, RDX-1.95 (RX-59C, Q496, RX-219, claim 1, JX-1, claim 8); RX-59C, Q498–98, and claim 16, RDX-1.96 (RX-59C, Q500, RX-219, claim 1, JX-1, claim 16); RX-59C, Q499–

502, of the '393 patent, do not materially alter the issue of invalidity.

Resps. Br. at 117-18.

Gamevice argues, in part:

> The evidence showed that claims 1, 8, 12, and 19 '393 patent are patentably distinct from the '119 patent. *See* CX-0182C, Singhose Rebuttal WS at Q/A 383-85. As the evidence showed, Nintendo failed to prove that the requirements of collateral estoppel are met here, namely "(1) the previous determination was necessary to the decision; (2) the identical issue was previously litigated; (3) the issue was actually decided in a decision that was final, valid, and on the merits; **and** (4) the party being precluded from relitigating the issue was adequately represented in the previous action." *United Access Techs, LLC v. Centurytel Broadband Servs LLC*, 778 F.3d 1327, 1331 (Fed. Cir. 2015) (emphasis added). Nintendo appears to argue that the PTAB's decision in the '119 IPR satisfies this, but the '393 patent claims and the disclosures are substantially different from those that were at issue in the '119 IPR. Therefore, the issues at dispute in this investigation are not identical to those presented in the '119 IPR and were never "actually decided in a decision that was final, valid, and on the merits." *United Access Techs*, 778 F.3d at 1331.

Compl. Br. at 147-48.

The Staff argues that the asserted claims of the '393 patent are patentably distinct from the'119 patent, so Nintendo has not shown that Gamevice claims are barred based on issue preclusion. *See* Staff Br. at 100.

The administrative law judge finds that Nintendo has not shown that the asserted claims of the '393 patent are patentably indistinct from the claims of the '119 patent. The evidence shows that claim 1 of the '393 patent recites several limitations that are not recited in claim 1 of the '119 patent under any of the parties' claim construction proposals. *See* CX-0182C (Singhose RWS) at Q/A 386. First, the removal of the limitation "the computing device providing a plurality of sides, each of the plurality of sides are disposed between an electronic display screen of the computing device and a back of the computing device" in claim 1 of the '393 patent confers patentable distinction over claim 1 of the '119 patent. Second, "adjacent to and

confining" in claim 1 of the '119 patent is materially different from "interacting with and adjacent" in claim 1 of the '393 patent. Third, claim 1 of the '393 patent recites "rigid structural bridge," unlike claim 1 of the '119 patent, which recites "a structural bridge."

The evidence also shows that claim 8 of the '393 patent is materially different and patentably distinct from, and not essentially the same as, claim 1 of the '119 patent. First, claim 8 of the '393 patent recites "the structural bridge having a first end associated with a first electronic game control module of a pair of electronic game control modules and a second end associated with a second electronic game control module of the pair of electronic game control modules," which does not appear in claim 1 of the '119 patent. Second, Nintendo failed to show that the limitation "the structural bridge configured for adaptation to a computing device" in claim 8 of the '393 patent is patentably indistinct from some limitation found in claim 1 of the '119 patent. *See id.* at Q/A 399. Third, claim 8 of the '393 patent recites the "void" limitation, which does not appear in claim 1 of the '119 patent.

The administrative law judge thus finds that Nintendo has not shown that the Gamevice claims are barred based on issue preclusion.

X. Economic Prong

Gamevice argues that it has satisfied the economic prong of the domestic industry requirement of section 337(a)(3)(A)-(C) through significant investment in labor and capital with respect to the articles protected by the '393 patent, and substantial investment in exploitation of the '393 patent. *See* Compl. Br. at 168-90. Nintendo opposes any such findings. *See* Resps. Br. at 190-99. The Staff argues that Gamevice has satisfied the economic prong of the domestic industry requirement. *See* Staff Br. at 104-06.

A. Gamevice's Investments in Labor and Capital

For the reasons discussed below, the administrative law judge finds that Gamevice has satisfied the economic prong of the domestic industry requirement of section 337(a)(3)(B) through significant investment in labor and capital with respect to articles protected by the '393 patent.

Gamevice contends that it has made the following investments in labor and capital from Fiscal Year 2017 through First Quarter 2020:

Fiscal Year	Labor (R&D and Technical Support)	Labor (Project-Based Contractors Performing R&D)	Total Labor Cost
2017	[ ]	[ ]	[ ]
2018	[ ]	[ ]	[ ]
2019	[ ]	[ ]	[ ]
Q1 2020	[ ]	[ ]	[ ]
Total	[ ]	[ ]	[ ]

CX-0002C (Reed DWS) at Q/A 68-78; CX-0023C; CX-0044C; CX-0045C

The administrative law judge finds that it is necessary to a do a product-level allocation because not all of Gamevice's alleged DI products have been found to practice at least one claim of the '393 patent. *See* Section VII. Gamevice argues that its domestic industry investments do not require any allocation because there is only one asserted patent in this investigation and effectively all of Gamevice's products are domestic industry products covered by the '393 patent. *See* Compl. Br. at 181-82 (citing CX-0002C (Reed DWS) at Q/A 80). Nintendo argues that Gamevice cannot satisfy the economic prong because it did not conduct a proper allocation.

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See Resps. Br. at 190-96. The Staff argues that Gamevice's expenditures should be allocated according to model. *See* Staff Br. at 105.

The administrative law judge finds that Gamevice has not provided reliable evidence regarding the domestic industry expenses prior to 2018, but that research-and-development expenses from Q1 2018 through the filing of the complaint in Q1 2020 were devoted to the Kishi. *See* CX-0003C (Hyun DWS) at Q/A 10, 44-49. As Mr. Reed testified, "Since approximately 2018, Gamevice has been working on developing and supporting its next generation of products, now branded as the Kishi device, which is marketed, sold and distributed by a new business partner, Razer, Inc." CX-0002 (Reed DWS) at Q/A 39.

[redacted]

[redacted] This investigation was instituted on May

Nintendo argues that Gamevice's expenditures based on the Kishi are not cognizable because they are more consistent with those of a mere importer. *See* Resps. Br. at 197-98. However, Gamevice has adduced evidence showing that it performs the engineering, research, development, design, and customer support of its products in the United States, and pays its employees and contractors in the United States to do so. *See* CX-0002C (Reed DWS) at Q/A 56; CX-0003C (Hyun DWS) at Q/A 10-14, 74-77.

[redacted]

Nintendo further argues that Gamevice's DI evidence is unreliable because it is based on the testimony of its CEO, Mr. Hyun. *See* Resps. Br. at 195-96. However, Gamevice's Chief Financial Officer, Olympia Chu, testified regarding how Gamevice maintains its financial records in the regular course of business, and how she prepared CX-0044C (Financial Spreadsheet) for purposes of this litigation using records kept in the regular course of business. *See* CX-0004C (Chu DWS) at Q/A 3-34. Gamevice's economic expert, Mr. Reed, explained that he examined the documents provided by Ms. Chu, and found them reliable for the purposes of his analysis. *See* CX-0002C (Reed DWS) at Q/A 93-94, 96.

4, 2020, based on a complaint filed on March 27, 2020, and supplemented on April 7, 14 and 15, 2020. 85 Fed. Reg. 26493 (2020).

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B. Engineering, Research and Development

Gamevice argues that the same investments relied upon regarding labor and capital also constitute substantial investments in the exploitation of the '393 patent through engineering, research, development, design, and technical support of the domestic industry products practicing the '393 patent under subparagraph (C) of 19 U.S.C. § 1337(a)(3). *See* Compl. Br. at 183-85.

The Staff argues that Gamevice satisfies the economic prong of the domestic industry requirement. *See* Staff Br. at 106.

"[E]ven though subsection (C) expressly identifies 'engineering' and 'research and development' as exemplary investments in the 'exploitation' of the patent, that language does not unambiguously narrow subsections (A) and (B) to exclude those same types of investments." *Certain Solid State Storage Drives, Stacked Electronics Components, and Prods. Containing Same*, Inv. No. 337-TA-1097, Comm'n Op. at 8-9 (June 29, 2018).

The Commission has held that the same R&D expenses may "separately constitute" a domestic industry under each subparagraph of 19 U.S.C. § 1337(a)(3). *Certain Optoelectronic Devices for Fiber Optic Communications, Components Thereof, and Products Containing the Same*, Inv. No. 337-TA-860, USITC Pub. No. 4852, Comm'n Op. at 15 (Nov. 2018); *Certain Marine Sonar Imaging Devices, Including Downscan and Sidescan Devices, Products Containing the Same, and Components Thereof*, Inv. No. 337-TA-921, Comm'n Op. at 58-59, 64, 66 (Jan. 6, 2016). As argued by Gamevice and the Staff, the administrative law judge finds that Gamevice's R&D expenses described above are both labor and capital investments and investments in engineering and research and development. *See* CX-0003C (Hyun DWS) at Q/A

10, 44-49. The administrative law judge thus finds that Gamevice satisfies the economic prong under subparagraph (C) of 19 U.S.C. § 1337(a)(3) for the reasons stated above.

C. Contextual Analysis

The Commission has observed that "comparing a complainant's domestic expenditures to its foreign expenditures" was one of multiple ways of conducting a contextual analysis of a complainant's domestic activities. *See Certain Carburetors and Prod. Containing Such Carburetors*, Inv. No. 337-TA-1123, Comm'n Op. at 18 (Oct. 28, 2019). In other words, "Commission precedent permits complainants to present evidence of their U.S. investments using methods and approaches that are appropriate to the facts of a particular investigation." *Movable Barrier*, Inv. No. 337-TA-1118, Comm'n Op. at 23 (Jan. 12, 2021) (Public Version) (EDIS Doc. ID 730303) (citing *Certain Optoelectronic Devices for Fiber Optic Communications*, Inv. No. 337-TA-860, Comm'n Op. at 18-19 (May 9, 2014) (Public Version) (EDIS Doc. ID 533534) ("These figures show the relative importance of [complainant's] R&D investments as they are directly tied to development of the articles protected by the patent and are critically important to [complainant's] business as a whole.")).

Gamevice has adduced evidence showing that its domestic industry investments are quantitatively significant and substantial in context. The total domestic industry development-related labor expenditures and the Gamevice investment in R&D related to the '393 patent is significant compared to all of Gamevice's labor expenses.

Gamevice's labor costs, 2018 to Q1 2020, are [ ].[20]] CX-0002C (Reed DWS) at Q/A 71,74, 77. As noted above, [ ]in research and development may be

[20] Specifically, the amounts are [ ] *See* CX-0002C (Reed DWS) at Q/A 71,74, 77.

attributed to the Kishi, representing [ ] of total labor costs. *See id*. An investment of over[ ]of operating expenses in R&D reflects a significant and substantial investment by Gamevice, particularly given Gamevice's status as a relatively small company. *See id.* at Q/A 101; *Certain Printing and Imaging Devices and Components Thereof*, Inv. No. 337-TA-690, Comm'n Op. at 27 (Feb. 17, 2011) ("The determination takes into account the nature of the investment and/or employment activities, the industry in question, and the complainant's relative size." (internal quotation omitted)).

These domestic investments are also large compared to operating expenses associated with efforts outside the United States, which are minimal. *See* CX-0002C (Reed DWS) at Q/A 102.

D. Analysis of Gamevice's Investments

The administrative law judge thus finds that the total value of Gamevice's domestic activities and investments that can be properly attributable to the DI products, established during the evidentiary hearing, totals[ ].]

Based on the record evidence discussed above, it is determined that Gamevice has satisfied the economic prong of the domestic industry requirement under section 337(a)(3)(B) and (C). Gamevice adduced testimony and documentary evidence showing that Gamevice has made significant investments in R&D with respect to the Kishi. Specifically, the evidence shows that, since 2018, Gamevice's R&D expenses may be properly attributed to the Kishi product.

XI. Conclusions of Law

1. The Commission has subject matter, personal, and *in rem* jurisdiction in this investigation.

2. The importation requirement is satisfied.

3. Nintendo's accused products do not infringe asserted claims 1-4, 6-8, 12, and 17-18 of the '393 patent.

4. The domestic industry requirement is satisfied as to the '393 patent.

5. Nintendo has shown that asserted claims 16, 18, 20, and 22 are indefinite.

6. Nintendo has shown, through clear and convincing evidence, that MOGA in view of iPhone renders obvious claim 8.

7. Nintendo has shown, through clear and convincing evidence, that Schoenith in view of Kessler renders obvious claims 1-4, 6-7, and 17.

8. Nintendo has shown, through clear and convincing evidence, that Willner in view of Park renders obvious claims 1-4, 6-7, and 17.

9. Nintendo has not shown, through clear and convincing evidence, that the asserted claims are invalid under 35 U.S.C. § 112(a).

10. Nintendo has not shown that any asserted claim of the '393 patent is unenforceable, barred or precluded under the *Kessler* doctrine or issue preclusion.

XII. Initial Determination on Violation

Accordingly, it is the initial determination of the undersigned that a violation of section 337 (19 U.S.C. § 1337) has not occurred in the importation into the United States, the sale for importation, or the sale within the United States after importation of certain portable gaming console systems with attachable handheld controllers and components thereof, with respect to asserted claims 1-4, 6-8, 12, and 17-18 of U.S. Patent No. 10,391,393.

Further, this initial determination, together with the record of the hearing in this investigation consisting of (1) the transcript of the hearing, with appropriate corrections as may

hereafter be ordered, and (2) the exhibits received into evidence in this investigation, is hereby certified to the Commission.

In accordance with 19 C.F.R. § 210.93(c), all material found to be confidential by the undersigned under 19 C.F.R. § 210.5 is to be given *in camera* treatment.

The Secretary shall serve a public version of this initial determination upon all parties of record and the confidential version upon counsel who are signatories to the Protective Order, as amended, issued in this investigation.

Pursuant to 19 C.F.R. § 210.42(h), this initial determination shall become the determination of the Commission unless a party files a petition for review pursuant to § 210.43(a) or the Commission, pursuant to § 210.44, orders on its own motion a review of the initial determination or certain issues herein.

XIII. Recommended Determination on Remedy and Bonding

Pursuant to the notice of investigation, 85 Fed. Reg. 26492 (May 4, 2020), this is the recommended determination in *Certain Portable Gaming Console Systems with Attachable Handheld Controllers and Components Thereof II*, United States International Trade Commission Investigation No. 337-TA-1197.

A. Limited Exclusion Order

The Commission has broad discretion in selecting the form, scope, and extent of the remedy in a section 337 proceeding. *Viscofan, S.A. v. U.S. Int'l Trade Comm'n*, 787 F.2d 544, 548 (Fed. Cir. 1986). A limited exclusion order directed to respondents' infringing products is among the remedies that the Commission may impose. *See* 19 U.S.C. § 1337(d).

Gamevice requests that the Commission impose a limited exclusion order that prohibits Nintendo from importing products found to infringe asserted claims 1-4, 6-8, 12, and 17-18 of the '393 patent. *See* Compl. Br. at 191.

In its posthearing brief, Nintendo argues that, in the event of a limited exclusion order, the order should be limited to those products specifically found to infringe, and should include a self-certification provision to allow Nintendo to continue to import non-infringing consoles. *See* Resps. Br. at 199.

The Staff argues that a remedial order limited solely to the products found to infringe is contrary to standard Commission practice. *See* Staff Br. at 107-08 (citing *Certain Unmanned Aerial Vehicles and Components Thereof*, Inv. No. 337-TA-1133, Comm'n Op. at 26-27 ("The Commission, consistent with its standard practice, does not limit the LEO to [products] that were actually adjudicated to infringe the [asserted] patent.")).

It has not been shown that the Commission should depart from its usual practice. It is the recommendation of the administrative law judge that, in the event a violation of section 337 is found, the Commission should issue a limited exclusion order with respect to products that infringe the asserted claims of the '393 patent, subject to any public interest factors considered by the Commission.

B. Cease and Desist Order

Section 337 provides that in addition to, or in lieu of, the issuance of an exclusion order, the Commission may issue a cease and desist order as a remedy for a violation of section 337. *See* 19 U.S.C. § 1337(f)(1). Under current Commission precedent, a cease and desist order is generally issued when there is a "commercially significant" amount of infringing, imported product in the United States that could be sold by an infringing respondent resulting in evasion of

the remedy provided by an exclusion order. *Certain Mobile Devices, Associated Software, and Components Thereof*, Inv. No. 337-TA-744, Comm'n Op. at 24 (June 5, 2012).

Gamevice argues that a cease and desist order is appropriate under the circumstances of this investigation. *See* Compl. Br. at 191-93. Gamevice argues that, as of May 11, 2020, NOA's inventory of Accused Products the United States was:[ ]of the Nintendo Switch, [ ]of the Joy-Con Controller Pairs, and [ ]of Joy-Con Controller Singles. *See* Compl. Br. at 192 (citing JX-0007C (Import Stip.); CX-0042C [( )).]

Nintendo argues that it maintains only[ ]of Nintendo Switch inventory and[ ]of Joy-Con Controller Pairs inventory, and that the COVID-19 pandemic has resulted in increased demand that will reduce that time even further. *See* Resps. Br. at 199 (citing RX-1625C; RX-1825C (Vander Veen RWS) at Q/A 119). Nintendo argues that this level of inventory is not commercially significant. *See id.*

The Staff argues that the evidence shows that Nintendo maintains commercially significant inventories in the U.S., and its ability to sell from this domestic inventory would undercut the relief provided by an exclusion order. *See* Staff Br. at 108-09.

Gamevice argues and has established that, during the pendency of this investigation, Nintendo has maintained an inventory of [ ]of the Nintendo Switch;[ ]of the Joy-Con Controller Pairs; and[ ]of the Joy-Con Controller Singles. *See* Compl. Br. at 192 (citing JX-0007C [( ]CX-0042C [( )]). This inventory has a value of at least[.] *See* CX-0002C (Reed DWS) at Q/A 112-13.

Based on the arguments of the parties and the evidence cited in the parties' posthearing briefs, it is the recommendation of the administrative law judge that the Commission should issue a cease and desist order in the event a violation of section 337 is found. Gamevice has

adduced sufficient evidence showing that Nintendo maintains commercially significant amounts of infringing products in the United States.

C. Bond

Pursuant to section 337(j)(3), the administrative law judge and the Commission must determine the amount of bond to be required of a respondent, during the 60-day Presidential review period following the issuance of permanent relief, in the event that the Commission determines to issue a remedy. The purpose of the bond is to protect the complainant from any injury. 19 U.S.C. § 1337(j)(3); 19 C.F.R. §§ 210.42(a)(1)(ii), 210.50(a)(3).

When reliable price information is available, the Commission has often set bond by eliminating the differential between the domestic product and the imported, infringing product. *Certain Microsphere Adhesives, Processes for Making Same, and Products Containing Same, Including Self-Stick Repositionable Notes*, Inv. No. 337-TA-366, Comm'n Op. at 24 (1995). In other cases, the Commission has turned to alternative approaches, especially when the level of a reasonable royalty rate could be ascertained. *Certain Integrated Circuit Telecommunication Chips and Products Containing Same, Including Dialing Apparatus*, Inv. No. 337-TA-337, Comm'n Op. at 41 (1995). A 100% bond has been required when no effective alternative existed. *Certain Flash Memory Circuits and Products Containing Same*, Inv. No. 337-TA-382, USITC Pub. No. 3046, Comm'n Op. at 26-27 (July 1997) (a 100% bond imposed when price comparison was not practical because the parties sold products at different levels of commerce, and the proposed royalty rate appeared to be *de minimis* and without adequate support in the record).

Gamevice requests that bond be set at [redacted] of the net sales price of infringing systems and accessories to offset Nintendo's enhanced profit that would otherwise be realized from the

use of '393 patent. *See* Compl. Br. at 195-96. Gamevice argues that Nintendo achieves an enhanced profit of no less than [ ]per unit when it sells an accused Switch product as opposed to an unaccused Switch Lite. *See id.* (citing CX-0002C (Reed DWS) at Q/A 127; CX-0043C. Inasmuch as Nintendo's average price of the Switch V2 units in Fiscal Year 2020 [( )], it is argues this results in an enhanced profit[ ]of the net sales price

[( ).] *See id.*

Nintendo argues that the comparison between the Switch and the Switch Lite is inappropriate because it fails to account for the many features of the Switch that are not present in the Switch Lite. *See* Resps. Br. at 200 (citing RX-1825C (Vander Veen RWS) at Q/A 123, 125, 126, 127). Nintendo argues that a bond of no more than[ ]is economically reasonable. *See id.*

The Staff argues that a price bond cannot be set based on price differentials because the accused products and the domestic industry products are so different that a price comparison is not practical, and there is no established royalty rate. *See* Staff Br. at 110. The Staff argues that Gamevice's comparison of the Switch to the Switch Lite is flawed because these products appeal to different types of consumers. *See id.* The Staff recommends that bond be set at[ ]of the entered value of covered products during the Presidential review period. *See id.* at 111.

The purpose of a bond, as indicated above, is to prevent any future injury during the Presidential review period, in the event that the Commission determines to issue exclusion orders.

As Dr. Vander Veen testified, Gamevice's incremental profit comparison is flawed because it fails to account for differences in product features and price. *See* RX-1825C (Vander Veen RWS) at Q/A 120-29. The administrative law judge finds that it is more reliable to

compare profits margins as opposed to net profit. *See id.* at Q/A 127. The profit margins for the Switch is[ ]and the profit margin for the Switch Lite is[,] which yields an enhanced profit[ ] *Id.* at Q/A 129.

The administrative law judge thus recommends that, in the event that a violation of section 337 is found, and subject to the issuance of an exclusion order, Nintendo should be required to post an importation bond of[ ]of the entered value of covered products.

XIV. Order

To expedite service of the public version of this document, the parties shall file a joint proposed public version, on the date and in the manner required by Order No. 16.

DPShaw

David P. Shaw
Administrative Law Judge

Issued: July 2, 2021

CERTAIN PORTABLE GAMING CONSOLE SYSTEMS WITH ATTACHABLE HANDHELD CONTROLLERS AND COMPONENTS THEREOF II **Inv. No. 337-TA-1197**

PUBLIC CERTIFICATE OF SERVICE

I, Lisa R. Barton, hereby certify that the attached **INITIAL DETERMINATION** has been served via EDIS upon the Commission Investigative Attorney, **Whitney Winston, Esq.**, and the following parties as indicated, on **July 28, 2021.**



Lisa R. Barton, Secretary
U.S. International Trade Commission
500 E Street, SW, Room 112
Washington, DC 20436

On Behalf of Complainant Gamevice, Inc.:

Smith R. Brittingham, Esq.
FINNEGAN, HENDERSON, FARABOW, GARRETT, & DUNNER LLP
901 New York Avenue, NW
Washington, DC 20001
Email: smith.brittingham@finnegan.com

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☐ Via Express Delivery
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On Behalf of Respondents Nintendo Co., Ltd. and Nintendo of America, Inc.

Grant Kinsel, Esq,
PERKINS COIE LLP
1201 Third Ave., Suite 4900
Seattle, WA 98101
Email: GKinsel@perkinscoie.com

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