

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

**Before the Honorable Bryan F. Moore
Administrative Law Judge**

In the Matter of

CERTAIN SMART TELEVISIONS

Investigation No. 337-TA-1338

RESPONDENT VIZIO INC.'S OPENING CLAIM CONSTRUCTION BRIEF

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I. INTRODUCTION

The parties present nine disputed claim terms for construction. VIZIO properly proposes that five of these terms are in means-plus-function format under 35 U.S.C. §112, ¶ 6. For one of these terms, Maxell agrees that § 112, ¶ 6 applies. However, in an attempt to avoid indefiniteness, Maxell identifies only one of the multiple claimed functions and introduces new, unclaimed functions as the corresponding structure. Maxell apparently does so in an improper attempt to compensate for a defective specification. For the other four means-plus-function terms, Maxell argues only “plain and ordinary meaning” based on misapplication of the law. VIZIO’s proposed constructions, in contrast, are well-grounded in both law and undisputed facts regarding the technology at issue.

For the non-means-plus-function terms, VIZIO’s proposed constructions are consistent with the meaning of the terms when read in view of the specification and prosecution history. Maxell, however, generally purses a “plain and ordinary meaning” to further its litigation positioning, without support in the record. For example, for one of the terms, VIZIO’s proposed construction is based on clear disclaimers. For another term, VIZIO proposes a nearly-identical construction to one that Maxell previously advocated before the Patent Trial and Appeal Board (“PTAB”) and another case, but Maxell now rejects it.

Accordingly, VIZIO’s proposed constructions should be adopted.

II. STATEMENT OF LAW

A. Terms Are Construed From the Perspective of a POSITA in View of the Written Description and Prosecution History

Claim terms are generally given their “ordinary and customary” meaning, which is “the meaning that the term would have to a person of ordinary skill in the art [POSITA] in question at the time of the invention.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005) (en

banc). The POSITA is deemed to read the claim term not only in the context of the particular claim in which the term appears, but in the context of the complete intrinsic record, which includes the entire patent and prosecution history. *Id.* at 1313-17; *Medrad, Inc. v. MRI Devices Corp.*, 401 F.3d 1313, 1319 (Fed. Cir. 2005) (“We cannot look at the ordinary meaning of the term ... in a vacuum. Rather, we must look at the ordinary meaning in the context of the written description and the prosecution history.”) (citations and quotation marks omitted). Indeed, “the specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.” *Phillips*, 415 F.3d at 1315 (quotation marks omitted).

The Federal Circuit has authorized courts to rely on extrinsic evidence, such as expert testimony, dictionaries (especially technical dictionaries), and learned treatises. *Id.* at 1317-19. General-usage dictionary definitions, however, may not be used to overcome art-specific evidence of the meaning of a claim term. *Id.* at 1322. Expert testimony can also be useful, but conclusory, unsupported assertions by experts as to the definition of a term and expert testimony that is clearly at odds with the intrinsic record are not useful and should be discounted. *Id.* at 1318.

B. Legal Principles Applicable to Means-Plus-Function Terms

Section 112, ¶ 6 provides that “[a]n element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof.” 35 U.S.C. § 112, ¶ 6 (pre-AIA). Where an element of a claim is expressed in this manner, it is described as a “means-plus-function” term. When such a term is present in the claim, the “claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.” *Id.*

The presence or absence of the word “means” in a claim creates a rebuttable presumption that § 112, ¶ 6 does or does not apply, respectively. *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1348 (Fed. Cir. 2015). The Federal Circuit has overruled the characterization of the

presumption against § 112, ¶ 6 as “strong” or requiring any heightened evidentiary showing to overcome. *See id.* at 1349; *Advanced Ground Info. Sys. v. Life360, Inc.*, 830 F.3d 1341, 1347 (Fed. Cir. 2016) (“the challenger must establish by a preponderance of the evidence that the claims are to be governed by § 112, ¶ 6”).

Rather, the presumption is overcome, and § 112, ¶ 6 applies, if the term itself fails to “recite sufficiently definite structure” or the claim otherwise recites “function without reciting sufficient structure for performing that function.” *Williamson*, 792 F.3d at 1348 (citations and quotation marks omitted).

If the court determines that § 112, ¶ 6 applies, the court construes the term under a two-part framework. First, the court determines the claimed function(s). *Id.* at 1351. Second, “the court determines what structure, if any, disclosed in the specification corresponds to the claimed function.” *Id.* “Where there are multiple functions, ... the patentee must disclose adequate corresponding structure to perform all of the claimed functions.” *Id.* at 1351-52. Corresponding structure is “adequate” only if it is sufficient to “achieve the claimed function.” *Id.* at 1352. And structure in the specification qualifies as “corresponding structure” only if “the intrinsic evidence clearly links or associates that structure to the function recited in the claim.” *Id.* “If the patentee fails to disclose adequate corresponding structure, the claim is indefinite.” *Id.*

For computer-implemented inventions, the Federal Circuit has “consistently required that the structure disclosed in the specification be more than simply a general purpose computer or microprocessor.” *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1367 (Fed. Cir. 2008) (quoting *Aristocrat Techs. Austl. Pty Ltd. v. Int’l Game Tech.*, 521 F.3d 1328, 1333 (Fed. Cir. 2008) (quotation marks omitted)). Rather, “in a means-plus-function claim ‘in which the disclosed structure is a computer, or microprocessor, programmed to carry out an algorithm, the disclosed

structure is ... the special purpose computer programmed to perform the disclosed algorithm.” *Id.*; see *EON Corp. IP Holdings LLC v. AT&T Mobility LLC*, 785 F.3d 616, 623 (Fed. Cir. 2015).

Construing a computer-implemented means-plus-function term to cover a microprocessor performing *any* algorithm to control an operation of the claimed apparatus would be overly broad. See *WMS Gaming, Inc. v. Int’l Game Tech.*, 184 F.3d 1339, 1347-48 (Fed. Cir. 1999). Rather, the structure is limited by the algorithm disclosed in the specification, if any. *Id.* at 1348. It is not enough that a skilled artisan may be able to glean a method for performing the claimed function—it is the *disclosure* that must identify such method. See *Noah Sys., Inc. v. Intuit Inc.*, 675 F.3d 1302, 1311-19 (Fed. Cir. 2012) (“That various methods might exist to perform a function is precisely why the disclosure of specific programming is required.”) (internal quotation marks omitted)). The algorithm may be expressed in any understandable terms, such as a mathematical formula, in prose, or as a flow chart, but it must still constitute “a step-by-step procedure for accomplishing a given result.” *Ergo Licensing, LLC v. CareFusion 303, Inc.*, 673 F.3d 1361, 1365 (Fed. Cir. 2012) (citations and quotation marks omitted).

III. U.S. PATENT 8,549,109

A. Overview of the ’109 Patent

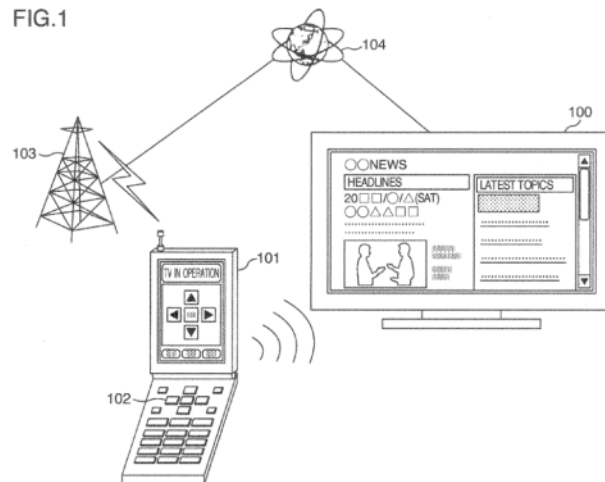
The ’109 Patent issued from a U.S. patent application filed June 6, 2012, and claims priority to a Japanese application filed September 26, 2007. Ex. 1, ’109 Patent, Title Page.

The ’109 Patent is generally directed to a “*portable terminal*,”¹ such as a cellular phone, used to communicate with an “*information processing apparatus*,” such as a television. ’109 Patent, 1:14-24, 4:15-57; Ex. 7, Houh 109 Decl. ¶¶ 42-66. The purported advance of the ’109

¹ Unless otherwise indicated, all language “*italicized and quoted*” represents language of the asserted claims.

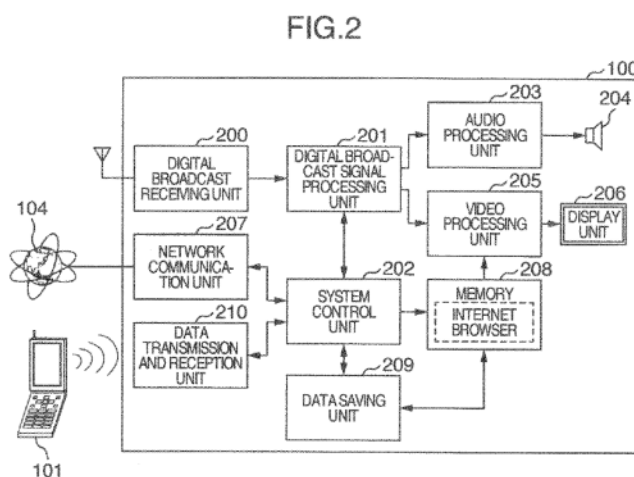
Patent is “smoothly” passing content (e.g., an internet website) being viewed on the “*portable terminal*” to a display on the “*information processing apparatus*” and reproduce the content on the “*information processing apparatus.*” ’109 Patent, 2:8-3:35.

Figure 1 illustrates a “*portable terminal*” (mobile terminal 101) in communication with an “*information processing apparatus*” (internet connection terminal 100). ’109 Patent, 4:15-57.



’109 Patent, Fig. 1. Mobile terminal 101 conducts radio communication with base station 103 to connect to internet 104, which is also connected to internet connection terminal 100. *Id.*, 4:34-47.

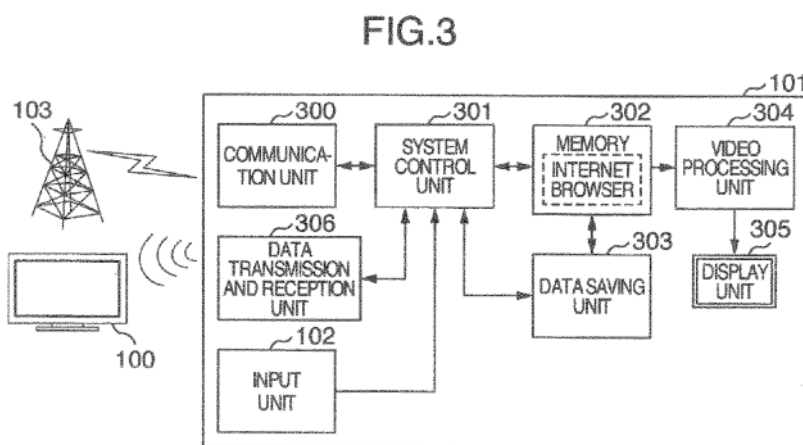
Figure 2 illustrates internet connection terminal 100.



’109 Patent, Fig. 2. Terminal 100 includes a system control unit 202, which controls operations of processing units for reproducing digital broadcasts and accessing the internet. ’109 Patent, 4:42-

5:67. Digital broadcast receiving unit 200 receives broadcast (audio and video) data via an antenna or cable and restores the broadcast data into data to be digitally processed by digital broadcast signal processing unit 201. *Id.*, 4:58-5:6. Network communication unit 207 includes a module for connecting to the internet. *Id.*, 5:37-41. Data transmitting and receiving unit 210 conducts radio communication (*e.g.*, Bluetooth or wireless Local Area Network (LAN)) with an external device, such as mobile terminal 101. *Id.*, 5:61-67. Display unit 206 displays images. *Id.*, 5:27-32.

Figure 3 illustrates mobile terminal 101. '109 Patent, 6:1-45.



'109 Patent, Fig. 3. Communication unit 300 conducts radio communication with base station 103, and data transmission and reception unit 306 conducts radio communication (*e.g.*, Bluetooth or wireless LAN) with internet connection terminal 100. *Id.*, 6:6-10, 6:39-44. Input unit 102 is a user input device, such as buttons, on mobile terminal 101, as shown in Figure 1 above. *Id.*, 4:30-33.

B. Agreed Constructions

The parties agree on the following construction for “*communication unit*.”

Claim Term	Agreed Construction
“ <i>communication unit</i> ” (claim 4)	35 U.S.C. § 112 ¶ 6 applies Function: “<i>conduct communication with a portable terminal</i>” Corresponding Structure: a communication device that is arranged to communicate with a portable terminal according to standard

	communication protocols, including Bluetooth, wireless Local Area Network (LAN), or IRDA
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C. “input unit”

Claim Term	Maxell’s Proposed Construction	VIZIO’s Proposed Construction
“input unit” (claim 4)	Plain and ordinary meaning.	35 U.S.C. § 112 ¶ 6 applies Function: “input video content” Corresponding Structure: a circuit which receives antenna/cable broadcast video content and restores the broadcast video content into video content to be digitally processed

Claim 4 recites an “information processing apparatus” comprising “an input unit arranged to input video content.” VIZIO submits that “input unit” is a means-plus-function term. While Maxell agrees that “communication unit” and “control unit” are means-plus-function terms, Maxell contends that “input unit” is not. *See* Ex. 6, Complainant’s Proposed Claim Constructions at 1. The term “input unit” is a means-plus-function term for substantially the same reasons as those other terms of claim 4.

1. “input unit” is a means-plus-function term

A POSITA would have understood that “input unit” is a means-plus-function term because: (1) “input unit” term itself fails to recite sufficiently definite structure; and (2) the claim fails to recite sufficient structure for performing the claimed function, *i.e.*, “input video content.” Houh 109 Decl. ¶¶ 74-81. The presumption against applying § 112, ¶ 6 to a non-“means” term is overcome here. *See Williamson*, 792 F.3d at 1348; *supra* § II.B.

The term “unit” is a known “nonce” word—a generic substitute for the word “means”—that does not connote any particular structures to a POSITA. Houh 109 Decl. ¶ 76. The Manual of Patent Examining Procedures (“MPEP”) also identifies “unit” among a list of non-structural

generic placeholders that may invoke § 112, ¶ 6. *See* MPEP § 2181(I)(A); *Diebold Nixdorf, Inc. v. Int'l Trade Comm'n*, 899 F.3d 1291, 1301 (Fed. Cir. 2018) (“‘unit’ ... does not, standing alone, connote any particular structure”). The ’109 Patent discloses at least **sixteen** distinct “unit[s]” that perform a myriad of functions, *e.g.*, **nine** distinct “unit[s]” in internet connection terminal 100 and **seven** more distinct “unit[s]” in mobile terminal 101. ’109 Patent, 4:50-5:67, 6:1-44, Figs. 2-3. Each of these “unit[s]” in Figures 2 and 3, like the disclosed “*input unit*,” is depicted as a functional “black box.” *See id.*

Adding the adjective “*input*” to “*unit*” does not impart sufficient structure to perform the claimed function of “*input[ting] video content*.” Houh 109 Decl. ¶ 77. Further, the claims themselves do not otherwise recite **any** structure for “*input unit*” that performs the recited function. Houh 109 Decl. ¶¶ 79-81. For example, claim 4 does not recite any particular structural inputs or outputs, nor **how** the “*input unit*” is physically connected to other recited components. Rather, it describes “*input unit*” solely in relation to its function—“*input[ting] video content*.” *See Diebold*, 899 F.3d at 1301; Ex. 12, Gray Tr. 97:5-13 (Maxell’s expert essentially agrees). Technical dictionary definitions of similar terms like “input device” confirm the generic nature of “input unit.” Houh 109 Decl. ¶ 80. That these dictionaries do not even separately define “*input unit*” further shows that the term was not used by POSITAs to designate structure such that it connotes sufficient structure. *See Diebold*, 900 F.3d at 1302.

The ’109 Patent specification confirms that “*input unit*” does not impart sufficiently definite structure. Indeed, the specification does not provide any particular examples of what structures fall within the definition of an “*input unit*” associated with the claimed function of “*input[ting] video content*.” Houh 109 Decl. ¶ 78. The ’109 Patent Summary generally repackages the claim language, describing the “*input unit*” functionally, not structurally. *See* ’109 Patent, 3:16-

34 (“an input unit which inputs content information”).²

Similarly, Maxell’s proposed construction—“plain and ordinary meaning,” which is no construction at all—improperly covers *any* structure, without limitation, capable of performing the claimed function. Maxell’s expert, Mr. Gray, confirms this, opining “*input unit*” is not “limited to a specific type of structure.” *See* Ex. 10, Gray Decl. ¶ 62; Gray Tr. 103:11-104:4, 108:23-110:22.³

Accordingly, the “*input unit*” should be deemed a means-plus-function term just like the parties have agreed to with respect to “*communication unit*” and “*control unit*.”

2. Corresponding structure

A POSITA would have understood that the only structure disclosed in the ’109 Patent specification associated with the claimed function of “*input[ting] video content*” is “a circuit which receives antenna/cable broadcast video content and restores the broadcast video content into video content to be digitally processed.” Houh 109 Decl. ¶¶ 82-89. Maxell has not offered an alternative to VIZIO’s proposed structure. *See* Gray Tr. 98:7-17; Houh 109 Decl. ¶¶ 90-92, Ex. 6, Complainant Maxell’s Proposed Constructions at 1.

More specifically, the ’109 Patent describes “digital broadcast receiving unit 200” as the only component that inputs “video data” (*i.e.*, video content) into the “*information processing*

² The specification otherwise uses the term “input unit” to refer to a different component—“input unit 102”—that is not even associated with “input[ting] video content.” Houh 109 Decl. ¶¶ 78, 88. Specifically, “input unit 102 is an input device of the mobile terminal 101 and includes, for example, a plurality of buttons,” which is consistent with the use of “input unit” in claim 1. *See* ’109 Patent, 4:24-33, 6:23-27, 6:63-67, 7:23-27, 19:61-62, Fig. 1 (input unit 102).

³ Mr. Gray also calls “input unit” an “input device” (Gray Decl. ¶ 58), which just replaces “unit” with another nonce word. *See Williamson*, 792 F.3d at 1350 (“Generic terms such as ... ‘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.’”). Mr. Gray also states that “*input unit*” is “a device for transferring data to the system from the outside world” and “it absolutely would include things like a touch screen” (Gray Decl. ¶ 58), which further confirms “*input unit*” is neither sufficiently definite structure nor sufficient structure to perform the recited function.

apparatus” (i.e., internet connection terminal 100). ’109 Patent, 4:58-5:6; Houh 109 Decl. ¶¶ 84-85; see Gray Tr. 116:22-117:5 (Maxell’s expert agrees digital broadcast receiving unit 200 inputs video content). Consistent with VIZIO’s proposed construction, the specification states that “digital broadcast receiving unit 200 is a circuit which receives desired broadcast data via an antenna or a cable and restores, based on received signals, the broadcast data into data to be digitally processed by the digital broadcast signal processing unit 201.” ’109 Patent, 4:58-62. Each time the specification describes “digital broadcasting receiving unit 200,” it receives “video data” as “broadcast data” obtained via an antenna or cable. *Id.*, 4:58-5:6, 7:63-8:7; Houh 109 Decl. ¶ 86.⁴

D. “control unit”

Claim Term	Maxell’s Proposed Construction	VIZIO’s Proposed Construction
“control unit” (claim 4)	35 U.S.C. § 112, ¶ 6 applies. Function: “control[ing] the input unit, the communication unit and the display unit” Corresponding Structure: “a microprocessor or processor that is arranged to: (1) control operations of the processing units required to reproduce digital content,	35 U.S.C. § 112, ¶ 6 applies. Functions: [F4.1] “control the input unit, the communication unit and the display unit” [F4.2] “control the display unit to display the video content inputted by the input unit when the communication unit receives first information from the portable terminal to permit displaying of the video content on the display unit, wherein ... displaying is resumed on the display unit from the stopped position”

⁴ The specification describes two other components in the “information processing apparatus” that input data, but it does not link either of these components to “input[ting] video content.” Houh 109 Decl. ¶¶ 87-88. The specification states that “network communication unit 207 includes ... a communication module capable of connecting to the internet” and “communicates predetermined data” for displaying an “internet site” on a display. ’109 Patent, 1:17-20, 5:37-41, 10:13-33, Figs. 4-5, 8A, 12. And “data transmission and reception unit 210 includes a communication device which conducts radio communication with an external terminal such as the mobile terminal 101” to receive a URL or other data from the mobile terminal when the mobile terminal is serving as a “remote control” for the apparatus. ’109 Patent, 5:61-67, 10:23-64.

	(2) control operations of the processing units required to access the internet, (3) control operations of the display unit to terminate the display of content on the information processing apparatus, and (4) control operations of the communication unit to receive information from the portable terminal”	[F4.3] “<i>control displaying of the video content on the display unit based on second information when the communication unit receives the second information from the portable terminal, to operate the video content displayed on the display unit</i>” [F4.4] “<i>control the display unit to terminate display of the video content when the communication unit receives the third information to terminate display of the video content on the display unit</i>” Corresponding Structure: Indefinite Alternatively, the proposed corresponding structure identified in Ex. 5, VIZIO’s Preliminary Proposed Constructions (“control unit”); Houh Decl. ¶¶ 122-44.
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The parties agree that “*control unit*” is a special purpose computer-implemented means-plus-function term, but disagree on the claimed functions and corresponding structure. *See* Houh 109 Decl. ¶¶ 93-166.

1. Claimed functions

The first step in construing a means-plus-function term is determining the claimed function. *Williamson*, 792 F.3d at 1351. When the claim recites more than one function performed by the disputed term, all such functions are included in the construction because the specification must disclose “adequate corresponding structure to perform all of the claimed functions.” *Id.* at 1351-52. VIZIO’s construction identifies “*all* of the claimed functions.” Maxell’s construction does not.

The parties agree on the *first* function—“*control[ling] the input unit, the communication unit and the display unit*” because claim 4 recites “*a control unit arranged to*” perform this

function. '109 Patent, 20:42-62. Maxell, however, ignores that claim 4 further recites that “*the control unit is arranged to*” perform **three additional** “*control*” functions, which is legally improper. *See Williamson*, 792 F.3d at 1351-52; *Media Rts. Techs., Inc. v. Capital One Fin. Corp.*, 800 F.3d 1366, 1374 (Fed. Cir. 2015); *see* Gray Tr. 68:19-69:12.

2. Corresponding structure

The term “*control unit*” is indefinite because the '109 Patent specification fails to disclose adequate corresponding structure to perform *any* claimed function, much less *all* of the claimed functions as required. *Williamson*, 792 F.3d at 1351-52. Maxell identifies the wrong corresponding structure for function F4.1 and identifies no corresponding structure for the remaining claimed functions.

The parties appear to agree that, to disclose a corresponding structure, the specification would have to disclose an algorithm that is carried out by a microprocessor or processor and sufficient to perform each claimed function. *See Net MoneyIN*, 545 F.3d at 1366-67. As explained, a computer-implemented means-plus-function term is limited to the algorithm or step-by-step procedure that the disclosure identifies as the method for performing the function. *Supra* § II.B.

In *Konami Gaming, Inc. v. High 5 Games, LLC*, No. 2:14-cv-01483-RFB-NJK, 2018 WL 1020120 (D. Nev. Feb. 22, 2018), *aff'd*, 756 Fed. Appx. 994 (Fed. Cir. 2019), the court addressed a computer-implemented means-plus-function term that, similar to “*control unit*” here, performed functions associated with what appears on a display. *Id.* at *14. The court found a lack of corresponding structure because the specification only offered a sequence of visual outcomes, or “a representative display,” and did not disclose structure as to **how** the software displays such visual outcomes. *Id.* at *15. To disclose such structure, the specification needed to disclose specific forms of look-up tables or other “step-by-step procedure” for accomplishing the claimed functions. *Id.* Here, the '109 Patent likewise lacks disclosure of any such step-by-step procedure.

The first claimed function, F4.1, requires the “*control unit*” to “*control*” the other units in claim 4—“*the input unit, the communication unit, and the display unit.*” The remaining functions further limit the “*control*” of the “*display unit.*” The specification fails to disclose any algorithm or step-by-step procedure to “*control*” any of these units. Houh 109 Decl. ¶¶ 103-21.

For example, the specification fails to link any algorithm for **how** a microprocessor or “*processor*” (i.e., “system control unit 202”) of the “*information processing apparatus*” is programmed to control a digital broadcast receiving unit (i.e., the “*input unit*”). Houh 109 Decl. ¶¶ 104-09. The only disclosed interaction between a “*control unit*” and digital broadcast receiving unit is that “control unit 202 delivers an indication to start reception processing to the digital broadcast receiving 200.” ’109 Patent, 7:59-67. This disclosure falls far short of the requisite algorithm or step-by-step procedure for **how** the “*control unit*” would be programmed to control the “*input unit.*” See *Ergo Licensing*, 673 F.3d at 1365; *Konami*, 2018 WL 1020120, at *15.

Regarding “*display unit,*” claim 4 recites three functions, F4.2-F4.4, for controlling the “*display unit,*” including control of what video content is displayed on the “*display unit*” (e.g., “*video content inputted by the input unit,*” “*displaying is resumed on the display unit from the stopped position,*” and “*displaying of video content on the display unit based on second information*”); and when video content is displayed or terminated (e.g., “*when the communication unit receives first information,*” “*when the first information is sent from the portable terminal,*” “*when the communication unit receives the second information,*” and “*when the communication unit receives the third information*”). But again, the specification fails to disclose **how** a “*processor*” is programmed to perform each of these “*control*” functions. Hough 109 Decl. ¶¶ 110-21.

Indeed, the specification fails even to disclose several of the claimed functions, much less

an algorithm for programming a microprocessor to perform all of the functions. Houh 109 Decl. ¶¶ 110-21. For example, the specification does not disclose displaying “*video content inputted by the input unit*” from any “*stopped position*.” Houh 109 Decl. ¶¶ 110-18. The specification also does not disclose controlling the display of “*video content inputted by the input unit*” based on any “*second information from the portable terminal*.” Houh 109 Decl. ¶¶ 119-21.

Alternatively, to the extent this term is deemed not indefinite, VIZIO has provided a proposed corresponding structure for “*control unit*,” which attempts to address each of the claimed functions based on the disclosure in the specification. *See* Ex. 5, VIZIO’s Preliminary Proposed Constructions at 2; Houh Decl. ¶¶ 122-44.

3. Maxell’s proposed construction should be rejected.

Maxell’s proposed construction errs in several respects. Houh 109 Decl. ¶¶ 145-66. As explained, Maxell improperly broadens the scope of the claimed functions by ignoring **three** of the **four** claimed “*control*” functions. *Supra* § III.D.1. In doing so, Maxell does not even attempt to identify corresponding structure for performing **all** of the functions. *Williamson*, 792 F.3d at 1351-52; *Media Rts.*, 800 F.3d at 1374. Additionally, any argument by Maxell that the first function “encompasses” the latter three functions is improper because it contradicts Federal Circuit guidance in at least *Williamson* and renders Maxell’s proposed corresponding structure inadequate for performing each of the claimed functions F.4.1-F4.4. *See id.*; *see also* Houh 109 Decl. ¶¶ 150-54.

Maxell also improperly narrows the scope of the claimed functions by rewriting the four claimed functions into four wholly new unclaimed functions, and characterizes them as “corresponding structure.” The Federal Circuit explains that “[t]he court must construe the function of a means-plus-function limitation to include the limitations contained in the claim language, and **only** those limitations,” and that “[i]t is improper to narrow the scope of the

function beyond the claim language.” *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 296 F.3d 1106, 1113 (Fed. Cir. 2002) (emphasis added); *Micro Chem., Inc. v. Great Plains Chem. Co.*, 194 F.3d 1250, 1258 (Fed. Cir. 1999) (“The statute does not permit limitation of a means-plus-function claim by adopting a function different from that explicitly recited in the claim.”).

Instead of construing the functions of “*control unit*” to include the four “*control*” functions recited in claim 4, Maxell identifies the first “*control*” function, F4.1, as the function, and then incorporates four new ***unclaimed*** “*control*” functions as the corresponding structure. These functions include, for example, “control[ling] operations of the processing units to access the internet,” which is neither recited in the claim, nor a necessary part of any step-by-step procedure disclosed in the specification for performing the claimed functions. Houh Decl., ¶¶ 155-66; *see Micro Chem.*, 194 F.3d at 1258 (“Nor does the statute permit incorporation of structure from the written description beyond that ***necessary to perform*** the claimed function.” (emphasis added)).

It not surprising that Maxell seeks to rewrite the claim because, as discussed above, the specification does not disclose the recited functions, let alone corresponding structure for performing the recited functions. Maxell’s attempts should be rejected.

IV. U.S. Patent 8,170,394

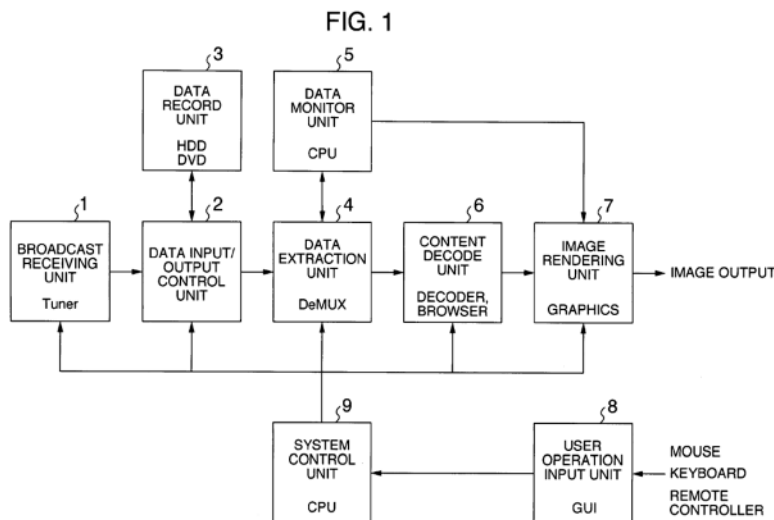
A. Overview of the ’394 Patent

The ’394 Patent issued from a U.S. patent application filed August 23, 2006, and claims priority to a Japanese patent application filed August 30, 2005. Ex. 2, ’394 Patent, Title Page.

The ’394 Patent is generally directed to a digital content reproducing apparatus with operation panels. ’394 Patent, Abstract, 1:15-2:38. According to the ’394 Patent, the prior art used a graphical user interface (“GUI”) that required the display of all control keys for different types of digital contents in a single, large operation panel. *Id.*, 1:33-55. The purported advancement of the ’394 Patent is providing multiple, smaller operation panels and automatically and exclusively

displaying a particular operation panel based on the nature of the displayed content. *Id.*, 1:60-2:38; Ex. 8, Wolfe Decl., ¶¶ 41–42; Ex. 11, Souri Decl., ¶¶ 30–33 (“the inventors of the ’394 Patent set out to design a multimedia player that would show users only the buttons of particular interest at any given time”).

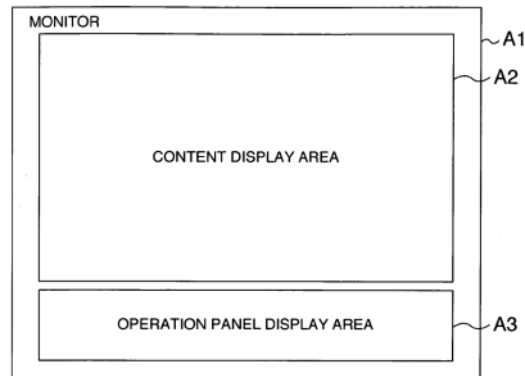
Figure 1 illustrates a digital content reproduction apparatus. ’394 Patent, 2:42-44, 3:16-40.



’394 Patent, Fig. 1. The digital content reproduction apparatus records broadcast data received at broadcast receiving unit 1 and supplies the recorded data to content decode unit 6 via data extraction unit 4. *Id.*, 3:19-26. Data monitor unit 5, a central processing unit or CPU, monitors information on the digital contents in data extraction unit 4, and in accordance with a change in the information, instructs image rendering unit 7 to render a user operation interface corresponding to the contents. *Id.*, 3:27-31. The decoded contents and the rendered user operation interface are superimposed and output as image data by image rendering unit 7. *Id.*, 3:31-33.

Figure 2 shows the layout of the screen of the digital content reproduction apparatus, with content display area A2 and operation panel display area A3. ’394 Patent, 2:45-46, 3:41-51.

FIG. 2



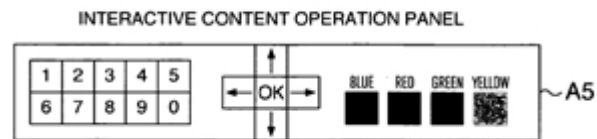
'394 Patent, Fig. 2.

Figures 3 and 4 illustrate a “*linear content operation panel*” and an “*interactive content operation panel*,” respectively. '394 Patent, 2:47-50, 3:45-64.

FIG. 3



FIG. 4



'394 Patent. Figs. 3-4. The “*linear content operation panel*” is displayed during reproduction of linear content, such as moving image contents, and the “*interactive content operation panel*” is displayed during reproduction of interactive content, such as data broadcast contents. *Id.*, 1:21-30 (“linear contents such as video and audio”), 3:45-57; Wolfe Decl., ¶¶ 49–50; Ex. 13, Souri Tr., 221:22–224:12. The “*linear*” and “*interactive content operation panels*” are displayed exclusively—that is, not displayed at the same time. *Id.*, 3:58-60; Wolfe Decl., ¶¶ 49–54; Souri Decl., ¶¶ 30–33.

To monitor the digital content, the data monitor unit 5 monitors program-specific information contained within a program map table (“PMT”) included in the broadcast data. '394 Patent, 3:65-4:8; Wolfe Decl., ¶¶ 49–50, Souri Tr., 233:13–234:23, 235:5–241:11. Specifically, the

PMT contains a data encode descriptor which contains an auto_start_flag. *Id.*, 4:7-8. The '394

Patent further explains:

In data added TV services, if the auto_start_flag is “1”, data broadcasting is automatically displayed, whereas if it is “0”, data broadcasting is displayed upon instruction from a user. **The data monitor unit monitors the auto_start_flag, and when the flag becomes “1”, the interactive content operation panel A5 is displayed, and when the [flag] becomes “0”, the linear content operation panel A4 is displayed.**

Id., 4:9-15 (emphasis added).

In other words, “information on digital contents is monitored, and upon occurrence of a change in the information, the panels are automatically and exclusively displayed in the operation panel display area A3.” *Id.*, 4:16-20. “Accordingly, only usable operation keys can be displayed, a user operation learning time can be shortened, since the panel rendering area is made small, mouse motion distance can be shortened, and an easy to use performance can be improved.” *Id.*, 4:21-25.

B. “controller”

Claim Term	Maxell’s Proposed Construction	VIZIO’s Proposed Construction
“controller” (claims 2, 4, 7)	Plain and ordinary meaning.	35 U.S.C. § 112 ¶ 6 applies. Function: “<i>control[ling] the alternative display of either of the linear content operation panel or the interactive content operation panel, wherein only one of the linear content operation panel or the interactive content operation panel is displayed exclusively at any given time, together with the outputted digital content wherein the outputted digital content together with either the linear content operation panel or the interactive content operation panel, are displayed concurrently in one screen</i>” Corresponding Structure: a CPU that controls the alternative display of either of the linear content operation panel or the interactive content operation panel by: [1] monitoring an auto_start_flag within a Program Map Table of the digital content; and [2][a] when the auto_start_flag is “1,” controlling the display of the interactive content operation panel together with the outputted digital content concurrently in one screen; and [2][b] when the auto_start_flag is “0,” controlling the display of the linear content operation panel together with the outputted digital content concurrently in one screen

1. “controller” is a means-plus-function term

The parties disagree on whether this term is a means-plus-function term. A POSITA would have understood that “controller” is a means-plus-function term because the term itself fails to recite sufficiently definite structure, nor does anything else in the claim recite sufficient structure for performing the claimed function. Wolfe Decl. ¶¶ 85-89; *Williamson*, 792 F.3d at 1348; *supra* § II.B.

Claims 2, 4, and 7 recite “*a controller which controls the alternative display of either the linear content operation panel or the interactive content operation panel.*” As part of this “*control[]*” function, the claims further require that “*only one*” of the panels “*is displayed exclusively at a given time,*” and that the “*outputted digital content*” is “*displayed concurrently in one screen*” with the corresponding “*operation panel.*” The claims, however, do not recite any algorithm or step-by-step procedure for performing this claimed function. Wolfe Decl., ¶¶ 85-86.

Further, the term “*controller*” does not impart sufficiently definite structure. As an initial matter, term “*controller*” does not appear at all in the specification. That said, there is no dispute that the claimed “*controller*” refers to “*a processor or CPU.*” Souri Decl. ¶¶ 54-57; *see also*, Wolfe Decl., ¶¶ 87-89; Souri Tr., 249:9-251:14. The only component that the ’394 Patent specification discloses to perform the claimed function is “*data monitor unit 5.*” ’394 Patent, 3:19-40, 4:1-15; Wolfe Decl., ¶¶ 87-89; Souri Tr., 240:14-18. Figure 1 indicates that data monitor unit 5 is a “*CPU*” or general-purpose processor. ’394 Patent, Fig. 1; Wolfe Decl. ¶ 87.

A general-purpose processor, however, is not sufficient structure to perform the recited “*control[]*” function because it would need to be programmed according to a particular algorithm to perform the function. Wolfe Decl. ¶ 88. Dr. Souri agrees that a POSITA would have understood that a generic “*controller*” or “*CPU*” would require specialized programming to perform the recited function. Souri Decl. ¶¶ 55-57; Souri Tr., 240:14-18, 249:9-251:14.

While VIZIO agrees that the claimed “*controller*” was known in the prior art, Maxell’s argument that this is not means-plus-function fails both technically and legally. *Cf. Egenera, Inc. v. Cisco Sys., Inc.*, 972 F.3d 1367, 1374-75 (Fed. Cir. 2020) (a term that could refer to “*software, firmware, circuitry, or [a] combination thereof*” is not sufficiently-definite where it “*a generic black box for performing the recited computer-implemented functions*”). Like in the *Konami* case

discussed above (*supra* § III.D.2), the claims of the '394 patent recite a function associated with what and when “*operation panels*” appear on a display. The claims, however, do not recite any algorithm or step-by-step procedure as to *how* the software in the controller displays such visual outcomes. Dr. Sourì does not argue or attempt to explain otherwise.⁵

2. Corresponding structure

VIZIO’s proposed construction should be adopted because it accurately captures the disclosed corresponding structure of the “*controller*.” There is no dispute that the claimed “*controller*” cannot be simply a general-purpose processor alone (*i.e.*, without additional programming). *See* Wolfe Decl. ¶¶ 85-86; Sourì Decl. ¶¶ 54-57; Sourì Tr. 247:18–254:16. When, as in this case, a general-purpose processor would require specific programming to perform the recited functions, the Federal Circuit has “consistently required” that “the specification disclose an algorithm for performing the claimed function.” *Williamson*, 792 F.3d at 1352. Accordingly, VIZIO’s proposed construction identifies the only disclosed algorithm for performing the recited function of the “*controller*.” *See* '394 Patent, 3:65-4:15; Wolfe Decl. ¶¶ 90-95.⁶

VIZIO’s corresponding structure properly adopts the disclosed algorithm that the specification discloses for controlling the alternative display of the “*linear*” and “*interactive content operation panel*.” '394 Patent, 3:65-4:15. As discussed above, the '394 patent explains that

⁵ Maxell’s expert illustrates the baseless nature of Maxell’s position that “controller” connotes sufficiently definite structure. Indeed, Dr. Sourì identifies the wrong component in the specification—“system control unit CPU 9—as the claimed “controller.” Sourì Decl. ¶ 56. The specification states that system control unit 9 controls the other units in the system. '394 Patent, 3:37-40. It does not state that system control unit 9 performs the claimed function. As explained below, it is the data monitor unit 5, also a CPU, that controls the alternative display of the operation panels.

⁶ Maxell did not offer an alternative to VIZIO’s proposed structure. Moreover, Dr. Sourì admitted that he lacks the legal “framework” to perform the appropriate § 112, ¶ 6 analysis. Sourì Tr. at 85:16–88:12. Thus, his opinions regarding VIZIO’s proposed construction should be accorded little (if any weight).

“data monitor unit 5 always monitors information on digital contents” and “instructs [...] rendering of an [*sic*] user operation interface corresponding to the information on the contents.” *Id.*, 3:26-31. The specification further explains that data monitor unit 5 (a CPU), “monitors the auto_start_flag [contained within the received program map table], and when the flag becomes ‘1’, the interactive content operation panel A5 is displayed, and when the [flag] becomes ‘0’, the linear content operation panel A4 is displayed.” *Id.*, 3:26-33, 4:1-15, Fig. 1.

Accordingly, VIZIO’s proposed construction should be adopted because it is consistent with both the specification and Federal Circuit law.

C. “distinct panels” / “mutually different” / “buttons...mutually differing”

Claim Term	Maxell’s Proposed Construction	VIZIO’s Proposed Construction
“distinct panels” / “mutually different” / “buttons ... mutually differing” (claims 2/4/7)	Plain and ordinary meaning, <i>i.e.</i> , different panels / mutually different / buttons of the linear content operation panel producing mutually differing	“panels in which the buttons are all mutually different”

In every disclosed embodiment of the ’394 patent, the buttons and functions are all mutually different between the claimed “panels.” The specification states that the “linear content operation panel” includes “functions of reproduce, stop, temporary stop, fast forward, fast backward, previous skip, next skip and the like.” ’394 Patent, 3:48-51. And the “interactive content operation panel” includes “functions of numerical keys from 0 to 9, up/down/right/left keys, a decide key, blue/red/green/yellow keys and other keys.” *Id.*, 3:54-57. There is no disclosed embodiment where the two “panels” have any buttons and/or functionality in common. Wolfe Decl., ¶¶ 74–75.

Furthermore, to the extent Maxell argues that the ’394 Patent specification supports any other embodiments, the applicants of the ’394 patent clearly and unmistakably disclaimed GUI panels having shared buttons or functions. VIZIO’s proposed construction for these terms correctly

reflects this disclaimer. Maxell’s proposal of “plain and ordinary” meaning does not recognize this clear disclaimer, which runs afoul of well-settled law and also would render the claims invalid for lack of written description.

Claim terms are given their plain and ordinary meaning other than in cases of lexicography or disavowal. *See Omega Eng’g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1324 (Fed. Cir. 2003) (“[W]here the patentee has unequivocally disavowed a certain meaning to obtain his patent, the doctrine of prosecution disclaimer attaches and narrows the ordinary meaning of the claim congruent with the scope of the surrender.”); *Biogen Idec, Inc. v. GlaxoSmithKline LLC*, 713 F.3d 1090, 1095 (Fed. Cir. 2013) (recognizing statements of disavowal “can take the form of either amendment or argument”). Here, the applicants distinguished amended claims over the Examiner’s cited prior art by clearly and unmistakably arguing that the alleged invention comprises “*operation panels*” having no shared buttons or functions.

To begin, the specification distinguishes prior art user interfaces that displayed all linear and interactive buttons, but disabled some depending on the content, from the claimed invention, which displays “only usable operation keys.” ’394 Patent, 1:36-65. The specification explains that this arrangement would permit a smaller panel rendering area. *Id.*, 1:60-65.

During prosecution, the Examiner rejected issued claim 2 (application claim 13) over, *inter alia*, U.S. Patent No. 7,126,587 (“Kawakami”). *See* Ex. 18, 10/21/2011 Office Action at 8-10. The Examiner also stated that the prior art “switches between separate/different linear and non-linear control panels” comprising “different sets/subsets of keys.” Ex. 19, 11/30/2011 Interview Summary.⁷

⁷ The Examiner also explained that it was “notoriously well known in the GUI display art” to “gray-out” or “simply remove[] ... non-active and/or non-enabled buttons/options from the displayed GUI.” EX. ___, 10/21/2011 Office Action at 6, 10.

In response, the applicants (in relevant part) amended claim 2, introduced issued claims 3-9 (application claims 14-20), and submitted arguments distinguishing the amended claims over the cited art.⁸ Ex. 20, 12/8/2011 Response to Office Action. The applicants argued that the claimed “*operation panels*” have “buttons being mutually differing from one another” or “effecting mutually differing functions from one another” (e.g., “rewind, stop, pause, play, fast-forward, etc.” for “*linear contents*” and “interactive-related” functions, including “numeric keypad, joystick buttons, color-defined buttons” for “*interactive contents*”). *Id.* at 13, 15. In contrast, the applicants argued that the prior art panels “do NOT have buttons of one panel mutually different from buttons of the other panel” because both of Kawakami’s panels have “a COLOR PAPER button, as one example.” *Id.*

The applicants thus clearly and unmistakably disclaimed “*operation panels*” in which not all buttons or functions are mutually different. *See Pharma Tech Sols., Inc. v. LifeScan, Inc.*, 942 F.3d 1372, 1380-81 (Fed. Cir. 2019); *Saffran v. Johnson & Johnson*, 712 F.3d 549, 559 (Fed. Cir. 2013). Moreover, the Examiner then relied on these arguments in issuing a Notice of Allowance by distinguishing Kawakami, finding that the prior art of record did not “produc[e] the alternative display of linear and interactive content operation panels” of issued claims 2, 4, and 7 “in the manners argued by applicant in the response filed 12/8/2011.” Ex. 33, 12/27/2011 Notice of Allowability at 5; *see Saffran*, 712 F.3d at 559 (finding disclaimer where “the record before us makes clear that the examiner shared [applicant’s] stated view of the claimed device”).

⁸ To the extent that Maxell argues that VIZIO’s construction is precluded by claim differentiation based on dependent claims 5 and 8, which depend from claims 4 and 7, respectively, this argument does not apply to claim 2, which has no corresponding dependent claim. Also, the Federal Circuit has held that “claim differentiation is not a hard and fast rule, and the presumption can be overcome by a contrary construction required by the specification or prosecution history, such as via a disclaimer.” *Tippmann Eng’g, LLC v. Innovative Refrigeration Sys., Inc.*, No. 2022-1318, 2023 WL 18559, at *4 (Fed. Cir. Jan. 3, 2023).

Despite its clear statements in the intrinsic record, Maxell now proposes a “plain and ordinary meaning” requiring only that the panels are “different.” Maxell’s proposed construction attempts to recapture subject matter the applicants unmistakably surrendered during prosecution—that is, by using essentially the same language the applicants expressly rejected when distinguishing their “differing” panels from Kawakami’s.⁹ See *TorPharm, Inc. v. Ranbaxy Pharms, Inc.*, 336 F.3d 1322, 1329 (Fed. Cir. 2003) (“A patentee of course may not recapture during litigation subject matter that was ultimately rejected as unpatentable during prosecution.”).

V. U.S. Patent 10,958,971

A. Overview of the ’971 Patent

The ’971 Patent issued from a U.S. patent application filed December 13, 2019, and claims priority to a Japanese patent application filed November 28, 2007. Ex. 3, ’971 Patent, Title Page.

The ’971 Patent is generally directed to a video display apparatus with radio communication units. ’971 Patent, Abstract, 1:21-2:52; Ex. 9, Houh 971 Decl. ¶¶ 42-63. The purported advance of the ’971 Patent is a “*display apparatus*” capable of communicating with the internet (or a home network) while also presenting high quality videos from a portable video processing apparatus, such as a camera or “*cellular phone*.” ’971 Patent, 1:46-57.

Figure 10 illustrates a system that includes video processing apparatus 100 (*i.e.*, “*cellular phone*”) and video display apparatus 200 (*i.e.*, “*display apparatus*”). ’971 Patent, 3:29-37.

⁹ Furthermore, any construction that would encompass “linear” and “interactive content operation panels” with shared buttons would render the claims invalid for lack of written description. *Philips*, 415 F.3d at 1327; *Ruckus Wireless, Inc. v. Innovative Wireless Sols., LLC*, 824 F.3d 999, 1004 (Fed. Cir. 2016).

video information and audio information from external video processing apparatus 100.” *Id.*, 12:19-22. “[M]odem 2016 is a second radio communication unit which connects to (accesses) a network, *e.g.*, the Internet or a home network to wirelessly communicate various information,” including video, audio, and data. *Id.*, 12:26-31; *see also id.*, 11:34-38, 11:40-51, Fig. 2. Modems 2015 and 2016 carry out OFDM (Orthogonal Frequency Division Multiplexing) modulation/demodulation. ’971 Patent, 12:15-19, *see also id.*, 2:65-67, 9:1-40, Fig. 4 (“a radio modulator [mo] and demodulator [dem] or modem”).

Controller 2017 variably controls, according to a control signal from controller 2013, the transmission rates respectively of modems 2015 and 2016 by variably designating the modulation/demodulation methods, frequency bands, and number of carriers, respectively, for the modems. *Id.*, 12:33-38. Controller 2013 drives controller 2017 to vary the transmission rate of modem 2015. *Id.*, 9:52-57, 11:56-60. To avoid deteriorating video quality, the transmission rate of radio modem 2015 to receive video information takes precedence over, and thus is higher than, the transmission rate of radio modem 2016 to communicate with the network. *Id.*, 11:60-12:14.

To effectuate variable control, controller 2013 sets “transmission parameters” in the radio modem. *See* ’971 Patent at 12:15-45; 3:11-12, 13:7-29, FIG. 9; *see also, e.g.*, Houh 971 Decl. ¶ 54. Figure 9 illustrates two sets of “transmission parameters” for radio modems, scheme 1 for radio modem 2015 and scheme 2 for radio modem 2016. ’971 Patent, 3:11-13, 12:41-13:33, 15:2-7 Fig. 9.

FIG. 9

SCHEME	SCHEME 1	SCHEME 2
BANDWIDTH	6MHz	6MHz
CARRIER MODULATION SCHEME	64QAM	QPSK 
CONVOLUTION CODE	3/4	2/3
GUARD INTERVAL	1/8	1/8
TRANSMISSION CAPACITY	17Mbps	5Mbps

B. *“the radio modem establishes a wireless communication with the cellular phone while being connected to the Internet or the local area network”*

Claim Term	Maxell’s Proposed Construction	VIZIO’s Proposed Construction
<i>“the radio modem establishes a wireless communication with the cellular phone while being connected to the Internet or the local area network”</i> (Claim 1)	Plain and ordinary meaning	The radio modem sets transmission parameters and initiates a wireless connection with a modem of the cellular phone, while the radio modem is connected with a modem of a device that is connected to the Internet or the local area network

VIZIO’s proposed construction is proper because it “is [this claim term’s] meaning to the ordinary artisan after reading the entire patent.” *Phillips*, 415 F.3d at 1321; Houh 971 Decl. ¶¶ 67-88. VIZIO’s construction correctly “focuses at the outset on how the patentee used the claim term in the claims, specification, and prosecution history.” *Id.*; *see id.* at 1315 (“[T]he specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.” (citations and internal quotation marks omitted)).

In contrast, Maxell, under the guise of its plain and ordinary meaning position, seeks to defer disclosure of its implicit construction until Maxell addresses its infringement and/or validity positions. For example, it appears from Maxell’s complaint, it is seeking to rewrite the claim to cover nearly any communication (direct or indirect) that involves a “radio modem” and a “cellular phone.” *See id.* at 1318, 1321-22 (improper to construe a claim “entirely divorced from the context

of the written description”). In this particular regard, Maxell implicit construction is unsupported by the ’971 Patent Specification.¹⁰ See *id.* at 1321. Thus, an affirmative construction is warranted.

1. The “radio modem” “initiates a wireless connection with a modem of a cellular phone”

In view of the intrinsic record, a POSITA would have understood that “*establish[ing] a wireless communication with the cellular phone while being connected to the Internet or the local area network*” includes the “radio modem” initiating a wireless connection “*with the cellular phone.*” Houh 971 Decl. ¶¶ 67-68, 75, 81-86. In other words, a POSITA would have understood that, while the “radio modem” is “*communicat[ing] with the Internet or the local area network*” over a previously established wireless “*connect[ion],*” the “radio modem” initiates a new wireless connection¹¹ with the “cellular phone.” *Id.*; see, e.g., ’971 Patent at Abstract, 1:58-2:5, 3:9-10, 6:31-37, 5:55-59, 6:64-7:20, 7:49-65, 9:11-13, 9:41-52, 11:34-38, 12:15-45, 13:40-52, Figs. 2, 8, 10, claim 1.

The ’971 Patent specification wholly supports and is consistent with this understanding. Houh 971 Decl. ¶¶ 69-71, 73; see ’971 Patent, Abstract, 1:58-2:5, 3:9-10, 6:64-7:20, 7:49-65, 9:41-52, 11:34-38, 12:15-45, 13:40-52, Figs. 2, 8, claim 1. The disclosed “radio modem” is capable of initiating a new wireless connection with the “cellular phone,” while it is “*communicat[ing] with*”

¹⁰ To the extent this term is not limited to what is disclosed, it would be invalid under § 112 ¶ 1 for lack of written description. See *CenTrak, Inc. v. Sonitor Techs., Inc.*, 915 F.3d 1360, 1367 (Fed. Cir. 2019) (“[A] separate purpose of [§ 112, ¶ 1] is to ensure that the scope of the right to exclude, as set forth in the claims, does not overreach the scope of the inventor’s contribution to the field of art as described in the patent specification. Thus, we have explained, written description is about whether the skilled reader of the patent disclosure can recognize that what was claimed corresponds to what was described.” (citations and quotation marks omitted)); see also Gray Tr. 142:22-147:25; Houh 971 Decl. ¶¶ 85, 75.

¹¹ The ’971 Patent uses the terms “connection” and “communication” synonymously when referring to establishment thereof. See Houh 971 Decl. ¶ 76; ’971 Patent, 1:21-33, 6:64-7:3, 8:13-20, 8:44-53, 12:46-53, 14:34-37, 15:52-55, 19:15-18, 19:33-37, claim 20, claim 24.

the “*Internet or the local area network*” over a previously established wireless “*connect[ion]*,” because it has multiple circuits (*e.g.*, radio modem circuits), where each circuit is dedicated to each wireless “*connect[ion]*.” *Id.* Every embodiment uses at least one “radio modem circuit” (*e.g.*, radio modem circuit 2015) for a connection with a “*cellular phone*” and at least one other (*e.g.*, radio modem circuit 2016) for a connection with the “*Internet or a local area network.*” Houh 971 Decl. ¶¶ 69, 71. Indeed, Maxell’s expert, Mr. Gray, does not dispute that the purported “invention” is directed to “simultaneous ... connection” using “multiple radio communication circuits.” Gray Decl. ¶¶ 21, 22.

The prosecution history further supports this interpretation. Houh 971 Decl. ¶ 72; *see* Ex. 14, U.S. Patent 9,420,212 Prosecution History, 8/1/2011 Amendment at 7-10; Ex. 15, U.S. Patent 10,129,590 Prosecution History, 3/9/2018 Amendment at 8; Ex. 16, U.S. Patent 10,244,284 Prosecution History, 7/10/2018 Amendment at 12-13; Ex. 17, U.S. Patent 11,451,861 Prosecution History, 4/30/2020 Amendment at 23. For example, in the original patent application in the ’971 Patent family, Maxell argued, “**Applicant’s present invention**” is directed to “**simultaneous[] connect[ions]**” “using a plurality of communication units simultaneously to carry out different kinds of radio communications (that is, communication with external video processing apparatus and communication with a network).” Ex. 14, U.S. Patent 9,420,212 Prosecution History, 08-01-2011 Amendment at 7-10 (emphasis in original).

Furthermore, a POSITA would have understood that the initiated connection is between the “modem” of the “*display apparatus*” and a modem of the “*cellular phone.*” Houh 971 Decl. ¶¶ 81-86; *see* ’971 Patent, 1:21-33, 3:29-42, 5:55-59, Fig. 10. The specification discloses a “**present invention**” directed to “establish[ing] connections **between** a plurality of apparatuses,” which connect the devices “**to each other**” to communicate “**therebetween.**” Houh 971 Decl. ¶ 81; ’971

Patent, 1:21-33, 3:29-42, Fig. 10. For example, as shown in Figure 10, bidirectional interfaces 10 and 11 connect modems in each device together. Houh 971 Decl. ¶¶ 82-84; *see* '971 Patent, 5:55-59, 6:31-37, 9:11-13, 9:47-52, 14:47-15:55, Fig. 10.

2. The “radio modem” “sets transmission parameters”

A POSITA would have also understood that “*establish[ing] a wireless communication with the cellular phone*” means the “radio modem” “sets transmission parameters” for the newly initiated connection. Houh 971 Decl. ¶¶ 76-80. A POSITA would have understood that “transmission parameters” (*i.e.*, “communication parameters”) “**must be set correctly to establish communication** between two modems.” Houh 971 Decl. ¶ 80; Ex. 24, Microsoft Press Computer Dictionary, 3rd Ed. (1997). Maxell’s expert, Dr. Gray, does not dispute this. *See* Gray Tr. 54:5-55:21 (“Q. So the parameters, are those used to establish a connection? [A.] Sure. It’s the manner in which the modem operates.”); *see also* '971 Patent, 3:11-13, 12:15-13:33, 15:2-7; Houh 971 Decl. ¶¶ 49-54, 78-79.

The '971 Patent specification is consistent with this understanding. Houh 971 Decl. ¶¶ 77-79. In each instance that the specification discloses a “radio modem” “*establish[ing]*” a wireless “*connect[ion]*” or “*communication*,” it refers to setting “transmission parameters” in the “radio modem.” Houh 971 Decl. ¶¶ 77-79; *see* '971 Patent, 3:9-13, 6:64-7:3, 8:13-20, 8:44-53, 11:56-13:6, Fig. 8. The specification discloses a controller (*i.e.*, controller 2013) in the “radio modem” that “sets” or resets transmission parameters (*e.g.*, “modulation/demodulation methods, the frequency bands, and the number of carriers”), or a scheme of transmission parameters (*e.g.*, Scheme 1 and Scheme 2 in Figure 9), to establish or reestablish a connection. *Id.*

Thus, a POSITA would have understood that, in view of the claims, the written description, and the extrinsic evidence, this term means, *inter alia*, the “radio modem” “sets transmission parameters [for a] wireless connection with a modem of the cellular phone.” Houh 971 Decl. ¶ 79;

see '971 Patent, 3:11-12, 12:15-13:29, Fig. 9.

3. The “radio modem” is “connected with a modem of a device that is connected to the Internet or the local area network”

Claim 1 requires the “radio modem” to “connect[] to” and “wirelessly communicate with the Internet or the local area network.” Houh 971 Decl. ¶ 87. A POSITA would have understood that the “radio modem” itself does not wirelessly interface directly “with the Internet or the local area network.” *Id.* Rather, radio modems communicate with other radio modems. *Id.* Thus, a POSITA would have understood that the “radio modem” wirelessly interfaces “with a modem of a device that is connected to the Internet or the local area network” (e.g., a wireless router). *Id.*

C. “carrier frequency”

Claim Term	Maxell’s Proposed Construction	VIZIO’s Proposed Construction
“carrier frequency” (Claim 1)	Plain and ordinary meaning	The frequency of a carrier signal that is modulated or demodulated for transmission or reception of information, respectively

VIZIO’s proposed construction is consistent with the plain and ordinary meaning of the “carrier frequency” when read in view of the intrinsic record. Houh 971 Decl. ¶¶ 126-29. A POSITA would have understood that the “carrier signal” is a “signal that is modulated or demodulated for transmission or reception of information, respectively.” *Id.*; see '971 Patent, 12:15-45, 13:34-14:12, 16:23-32, claims 17-18. And a POSITA would have understood that the frequency of that signal is the “carrier frequency.” *Id.* Moreover, Maxell’s expert “do[es] not necessarily disagree with VIZIO’s proposed construction.” See Gray Decl. ¶ 52; Gray Tr. 175:11-20. As such, VIZIO’s proposed construction should be adopted.

D. “processor”

Claim Term	Maxell’s Proposed Construction	VIZIO’s Proposed Construction
“processor” (Claim 1)	Plain and ordinary meaning	35 U.S.C. § 112 ¶ 6 applies

		Function: <i>“controls the radio modem to wirelessly communicate with the Internet or a local area network based on a first user instruction from a remote controller”</i> Corresponding Structure: Indefinite
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1. “processor” is a means-plus-function term

A POSITA would have understood that “processor” is a means-plus-function term because “processor” fails to recite sufficient structure for performing the claimed function, *i.e.*, “control[ling] the radio modem to wirelessly communicate with the Internet or a local area network based on a first user instruction from a remote controller.” Houh 971 Decl. ¶¶ 90-96; *see* Gray Tr. 153:5-154:6 (Maxell’s expert agreed that the claimed “processor” performs this recited function).

The parties’ experts agree that this term refers to a generic, off-the-shelf or general purpose processor. Houh 971 Decl. ¶¶ 91-92 (“general purpose processor”); Gray Decl. ¶¶ 34-37. For example, Maxell’s expert, Mr. Gray, refers to “numerous Intel and AMD processors” that were commercially available before the ’971 Patent and relies on dictionary definitions to define “processor” as “logic circuitry that responds to and processes basic instructions that drive a computer.” Gray Decl. ¶¶ 35-37. The ’971 Patent specification confirms a POSITA would understand it to refer to a general-purpose processor because it illustrates microprocessors as a “black box” function (*e.g.*, microprocessor 279 in Figure 2) and generally refers to microprocessors being programmed to perform various functions. ’971 Patent, 11:34-55 (“If the information from the network is an update program for an application program, an operating system OS, or the like, the microprocessor 279 adds and stores new software and/or updates an associated program.”), Fig. 2; Houh 971 Decl. ¶ 93; Gray Decl. ¶ 38 (“inventors of the ’971 Patent used the term ‘processor’ ... consistent with its plain and ordinary meaning”).

When a claim recites a generic “processor,” whether the term is a means-plus-function term turns on the claimed function. Specifically, whether a general-purpose processor is “sufficient structure for performing [the claimed] function.” *Williamson*, 792 F.3d at 1315, 1348 (internal quotations and citations omitted). In other words, “processor” is not sufficient structure unless the claimed function(s) can be performed by a general-purpose processor, without special programming. *Id.* at 1351-52; see *In re Katz Interactive Call Processing Pat. Litig.*, 639 F.3d 1303, 1315 (Fed. Cir. 2011). For functions that can be performed by any general purpose processor without special programming, like “receiving” and “storing,” § 112, ¶ 6 would not apply. See *GoDaddy.com, LLC v. RPost Commc’ns. Ltd.*, No. 14-cv-126-PHX-JAT, 2016 WL 212676, at *56-57 (D. Ariz. Jan. 19, 2016) (citing *In re Katz Interactive Call Processing Pat. Litig.*, 639 F.3d 1303, 1316 (Fed. Cir. 2011)). But for functions that are not typical functions found in a general-purpose, off-the-shelf processor and require additional programming of the processor to implement, like “associating” data or “performing” certain steps, § 112, ¶ 6 would apply. See *id.*; *Konami Gaming*, 2018 WL 1020120, at *14; *Egenera*, 972 F.3d at 1374-75.

Claim 1 recites a “processor” with a function that requires special programming because general-purpose processors, such as the off-the-shelf Intel and AMD processors identified by Maxell’s expert, cannot perform the function of “control[ing] the radio modem” without additional programming. Houh 971 Decl. ¶ 91; Gray Decl. ¶ 37; see Gray Tr. 161:16-162:11 (“Q. What kind of programming would it need? A. The kind of programming that would allow for the control and the other functions that you were referring to there.”). And claims 2-5, which depend from claim 1, recite more functions of the claimed “processor”—such as “generat[ing] additional information,” “execut[ing] an update process based on the information,” and “read[ing] the control information to” make a determination—that each require further specialized programming. Houh

971 Decl. ¶ 92. Thus, the dispositive question is whether the claimed “*processor*” is sufficient to perform the ***claimed function***, not just any “tasks.” *Williamson*, 792 F.3d at 1348. Maxell’s expert does not directly address this. Gray Decl. ¶ 35 (stating a processor can perform tasks, but not expressly stating the claimed “*processor*” can perform the claim function without programming). Maxell’s dictionary definitions further confirm that a POSITA would not recognize “*processor*” as sufficiently definite structure for performing the recited functions because they merely refer to generic functionality. *See* Gray Decl. ¶ 35; *see GoDaddy.com*, 2016 WL 212676, at *56.

In *Williamson*, the Federal Circuit held that determining whether applying § 112, ¶ 6 applies to a non-“means” term involves two inquiries. 792 F.3d at 1348. First, determining if the claim term itself would have connoted “sufficiently definite structure” to a POSITA. *Id.* If not, § 112, ¶ 6 applies. *Id.* Additionally, the claim must recite “sufficient structure for performing [the claimed] function.” *Id.* For example, when the term refers to a general-purpose processor, “the structure disclosed in the specification be more than simply a general purpose computer or microprocessor.” *Net MoneyIN*, 545 F.3d at 1367.

Maxell’s expert, Mr. Gray, addresses only the first inquiry, arguing simply that a POSITA would have understood “*processor*,” as used in claim 1 to refer to any general-purpose processor. Gray Decl. ¶ 35. Maxell, however, does not address the second *Williamson* inquiry. Specifically, Maxell, through its expert, neither argues nor explains ***how*** a general-purpose processor would be sufficient structure for performing the function recited in claim 1, or any other claim. Indeed, Mr. Gray’s statement of law in his declaration omits the second way of overcoming the presumption, confirming he was supplied with the ***wrong*** legal framework. *See* Gray Decl. ¶ 19.

2. Corresponding structure

The term “*processor*” is indefinite because the ’971 Patent specification fails to disclose adequate corresponding structure to perform the claimed functions. *Williamson*, 792 F.3d at 1352;

Houh 971 Decl. ¶¶ 97-116. Maxell and its expert have not proposed any corresponding structure. See Gray Tr. 164:23-165:7.

Construing “*processor*” requires determining, for each claimed function, “what structure, if any, disclosed in the specification corresponds to [that] function.” *Williamson*, F.3d at 1351. Here, the disclosed structure must be “an algorithm for performing the claimed function,” which converts a general-purpose processor into the structure needed to perform the claimed function. *Id.* at 1352; *Aristocrat*, 521 F.3d at 1333.

The specification fails to disclose any algorithm or step-by-step process for programming any software to achieve “control[ling] the radio modem to wirelessly communicate with the Internet or a local area network based on a first user instruction from a remote controller.” Houh 971 Decl. ¶¶ 97-115. To begin, the ’971 Patent specification does not disclose this function at all. Hough 971 Decl. ¶ 100. Maxell’s expert, Mr. Gray, identifies portions of the specification that purportedly provide “exemplary disclosures” of how the inventors used the term “processor,” but none of these portions disclose the claimed function. Gray Decl. ¶ 38.

As explained in Section V.A (Overview of the ’971 Patent) above, the “*radio modem*” in video *display* apparatus 200 that is associated with wirelessly communicating with the internet or a network is radio modem circuit **2016**. ’971 Patent, 11:34-12:41; *supra* § V.D.2. The relevant portions of the specification with respect to the claimed “*controls*” function are at column 12, lines 26-45, and column 13, lines 13:7-19. These portions show that the specification does not disclose the claimed function, much less any algorithm or step-by-step procedure for how software associated with the claimed “*processor*” would be programmed to perform the claimed function. Houh 971 Decl. ¶¶ 100-15. The specification does not disclose “*control[ling] the radio modem to wirelessly communicate with the Internet or a local area network*” based on any “user indication.”

Moreover, there is no mention of any “*user instruction from a remote controller*” for controlling any radio modem to “*wirelessly communicate with the Internet or a network.*” The specification refers to using a “remote controller” or “remote control” for other purposes. *See* ’971 Patent, 4:61-63, 15:55-64, 19:15-27; *see also id.*, 14:59-19:37, Figs. 5-6; Houh 971 Decl. ¶ 111. But none of these excerpts discussing a “*remote controller*” or “remote control” are related to controlling the radio modem to “*wirelessly communicate with the Internet or a local area network.*” And even if they were, the specification fails to disclose any accompanying algorithm to program the claimed “*processor*” to perform the claimed functionality. Houh 971 Decl. ¶¶ 97-115.

The ’971 Patent specification similarly fails to disclose any algorithm or step-by-step procedure for programming the claimed “*processor*” to perform the associated functions in dependent claims for the same reasons. Accordingly, because the ’971 Patent specification fails to disclose sufficient structure to perform the claims functions, the term “*processor*” is indefinite.

E. “*radio modem*”

Claim Term	Maxell’s Proposed Construction	VIZIO’s Proposed Construction
“ <i>radio modem</i> ” (Claim 1)	Plain and ordinary meaning, <i>i.e.</i> , a device that demodulates and modulates signals for wireless communication	A device that modulates or demodulates carrier signals for transmission or reception, respectively

VIZIO’s proposed construction of “*radio modem*” is consistent with how a POSITA would have understood the term in view of the intrinsic record. Houh 971 Decl. ¶¶ 117-25; ’971 Patent at 12:15-45, 13:34-14:12, 16:23-32, claims 17-18. As discussed, the specification discloses that the “*radio modem*” includes a plurality of circuits for simultaneously connecting with a “*cellular phone*” and the “*internet or a local area network.*” Houh 971 Decl. ¶¶ 121-22, 125; *see* ’971 Patent, 9:1-57, 11:34-55, 12:15-45, 13:34-14:12, 16:23-32, Figs. 2, 8; *see also id.*, 1:58-2:5, 2:22-44, 3:29-50, 5:33-6:63, 7:49-8:12, 14:47-16:60, 17:44-52, Figs. 4-6, 11. Thus, a POSITA would have

understood that the “*radio modem*” can simultaneously modulate or demodulate multiple carrier signals, consistent with VIZIO’s construction. *Id.* Again, here too, Maxell’s expert “do[es] not necessarily disagree with VIZIO’s proposed construction.” *See* Gray Decl. ¶ 44; Gray Tr. 167:22-168:5. Thus, VIZIO’s proposed construction should be adopted.

VI. U.S. Patent 11,017,815

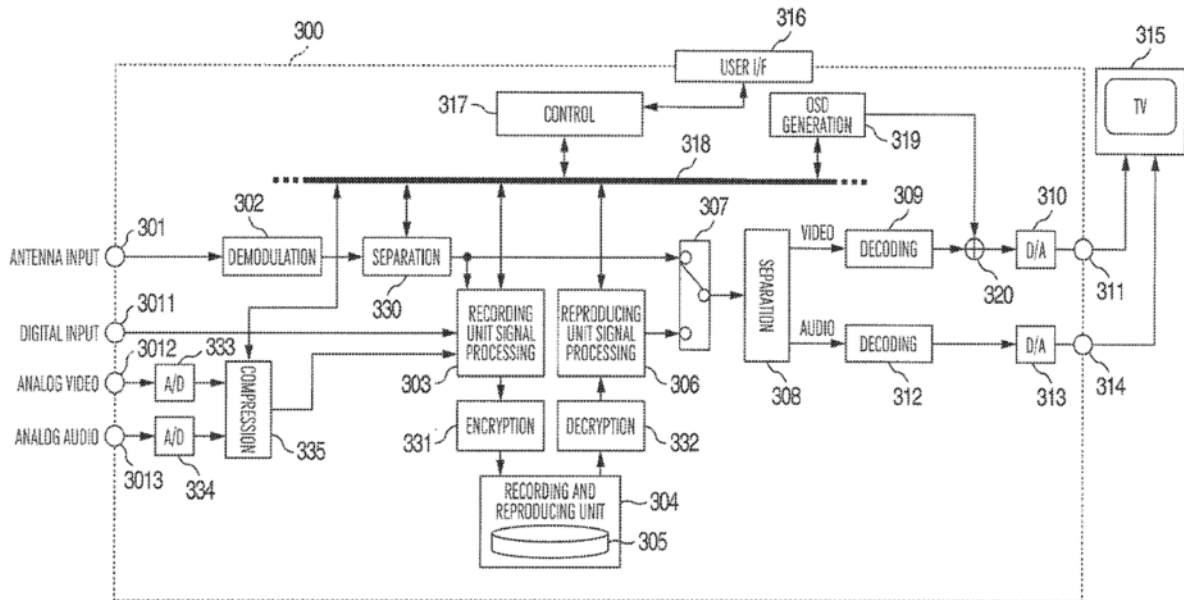
A. Overview of the ’815 Patent

The ’815 Patent issued from a U.S. patent application filed May 26, 2020, and claims priority to Japanese patent applications filed December 2, 2004, and December 28, 2004. Ex. 4, ’815 Patent, Title Page.

The ’815 Patent is generally directed to managing play list information for recorded audio and video (“AV”) data. ’815 Patent, Abstract, 1:35-3:10; Wolfe Decl. ¶¶ 99-104. The purported advance of the ’815 Patent is adding a “management hierarchical level” to allow users to rearrange play lists and select arbitrary play lists on a graphical user interface (“GUI”). ’815 Patent, 2:28-3:10, 8:19-41.

Figure 3 is a block diagram showing recording and reproducing device 300 according to the purported invention, which is capable of receiving digital broadcast, recording the digital broadcast on a recording medium, and reproducing the recorded data. ’815 Patent, 4:43-5:56.

FIG.3



'815 Patent, Fig. 3. In relevant part, the device 300 includes control unit 317, which controls various components in the device to cause operation based on the user's "order input" via user I/F 316 (*e.g.*, an infrared remote controller). *Id.*, 5:47-6:18. In response to the "order input," an on-screen display (OSD) (a GUI) is generated by OSD generation unit 319 and displayed. *Id.*, 4:48-5:6, 5:51-56.

Examples of these GUIs are shown in Figures 6 and 7, below.

FIG.6

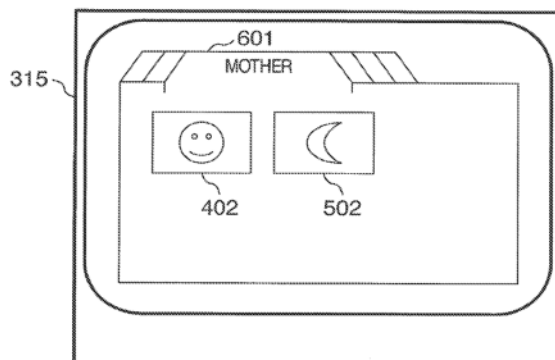
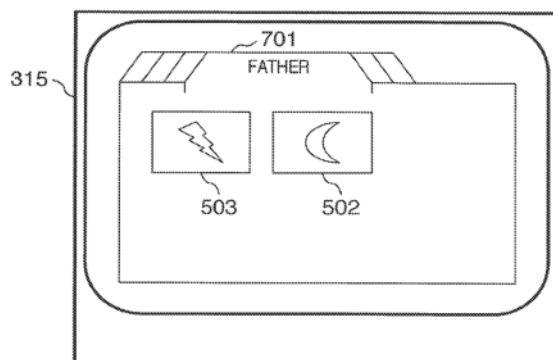


FIG.7



Figures 6 and 7 show menu displays of user-defined lists (*e.g.*, "MOTHER" or "FATHER"). *Id.*, 6:19-55. The purported benefit provided by the '815 Patent is that each user can "freely register

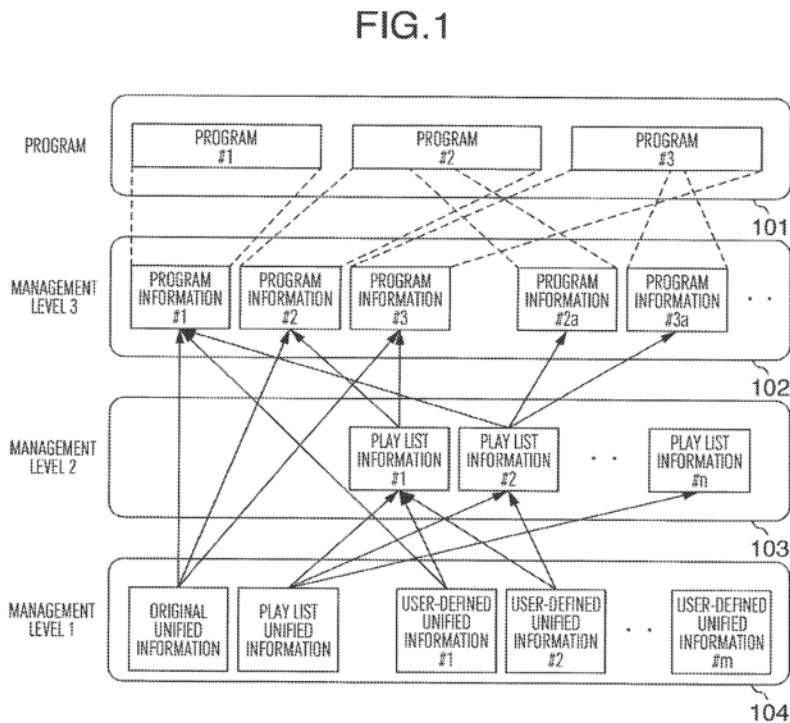
and delete data” from their respective list without affecting the content included in another user’s list. *Id.*

The ’815 Patent alleges that prior art systems did not allow users to independently edit/manage content in their respective lists because they used only two “management levels.” 1:63–2:52, Fig. 2. In contrast, the ’815 Patent states that “present invention” introduces a third “management level” to achieve the purported benefit:

In order to achieve the objects, in accordance with the present invention, a unit of management for managing all registered play list information and an upper management hierarchical level are added. The unit of management is adapted to be handled on the same level with unified information that indicates a reproduction range of all AV data. User-defined unified information is adapted to be handled on the added management hierarchical level.

Id., 2:52-62.

Figure 1 this three-tier “management structure.”



Id., 3:47-51.

According to the '815 Patent, the management structure in Figure 1 makes it possible to alter the sequence of displaying play lists on a GUI such that “a plurality of users can set play lists that they want to view and recorded original contents freely and individually.” '815 Patent, 8:19-34. The '815 Patent states that “a clear distinction is made between the user-defined play list unified information [in Figure 1] and the user-defined unified information [in Figure 2].” *Id.*, 8:35-37. “The user-defined play list unified information may be defined as user-defined play list unified information having no link to the original program information of the user-defined unified information.” *Id.*, 8:37-41.

B. “processor”

Claim Term	Maxell's Proposed Construction	VIZIO's Proposed Construction
“processor” (claim 1)	Plain and ordinary meaning.	35 U.S.C. § 112 ¶ 6 applies. Functions: <i>“controlling the display to display:</i> [F1.1] <i>a first area including a first character associated with a first group of video information for a first classification and a second character associated with a second group of video information for a second classification different from the first classification, the first group of video information being configured to allow a user to edit, wherein the first group of video information and the second group of video information are part of the plurality of stored video information</i> [F1.2] <i>a second area displaying thumbnails corresponding to at least a portion of the plurality of stored video information;</i> [F1.3] <i>wherein user selection of the first character enables the display of a first group of thumbnails corresponding to the first group of video information in the second area,</i> [F1.4] <i>wherein user selection of the second character enables the display of a second group of thumbnails corresponding to the second group of video information in the second area</i>

		[F1.5] <i>wherein, upon one video information stored on the recording medium included in both the first group of video information and the second group of video information being deleted from the first group of video information, the one video information continues to be included in the second group of video information and the processor controls the display to display a thumbnail corresponding to the one video information as one of the second group of thumbnails when the second character is selected</i> Corresponding Structure: Indefinite
“processor” (claim 21)	Plain and ordinary meaning.	35 U.S.C. § 112 ¶ 6 applies. Functions: [F21.1] <i>“removing one video information from the first group of video information after the input interface receives a selection to remove the one video information from the first group of video information associated with the first user profile, wherein, upon the one video information being removed from the first group of video information, the one video information continues to be included in the second group of video information for the second user profile and the second group of thumbnails continues to display a thumbnail corresponding to the one video information when the second character is selected”; and</i> [F21.2] <i>“decrypt[ing] second video information corresponding to a selected thumbnail when the input interface receives a selection of desired video information based on a selection of a thumbnail from the first group of thumbnails”</i> Corresponding Structure: Indefinite

1. “processor” is a means-plus-function term

There does not appear to be any dispute that this term refers to a generic, general-purpose processor (e.g., a commercially available processor). Wolfe Decl. ¶¶ 117-19, 129-32; Sourì Decl. ¶¶ 41-42; Sourì Tr. 142:5-146:19.¹²

¹² Dr. Sourì repeats the same language from Mr. Gray’s report on “processor” discussed above for the ’971 Patent, referring to “numerous Intel and AMD processors” that were commercially available before the ’815 Patent and defining “processor” as “logic circuitry that responds to and processes basic instructions that drive a computer.” Sourì Decl. ¶¶ 41-43.

As an initial matter, the '815 Patent specification does not use the term “*processor*.” However, a POSITA would have understood that the disclosed control unit 317 (Figure 1), which performs the recited functions, is a general-purpose processor that would require particular programming to perform these claimed functions. '815 Patent, 5:47-56 (“control unit 317 controls the whole device to cause operation based on the user’s order input” and “an order input request to the user or necessary OSD display for the user is implemented by preparing it in the OSD generation unit 319”), Fig. 1; Wolfe Decl. ¶¶ 118–19, 131–32; Sourì Decl. ¶ 44 (“inventors of the '815 Patent used the term ‘processor’ (*i.e.*, control unit 317) consistent with its plain and ordinary meaning”), Sourì Tr. 139:10–146:21.

As explained above for the “*processor*” term in the '971 Patent, when a claim recites a generic “processor,” the dispositive question for applying § 112, ¶ 6 is whether a general-purpose processor is “sufficient structure for performing [the claimed] function.” *Williamson*, 792 F.3d at 1348; *supra* § V.D.1. There is no dispute that the claimed functions in claims 1 and 21 cannot be performed by a general-purpose processor without special programming. Wolfe Decl. ¶¶ 118–19, 131–32; Sourì Tr. 139:10–146:21. Thus, “*processor*” is a means-plus-function term. *See Egenera*, 972 F.3d at 1374-75; *Williamson*, 792 F.3d at 1351-52; *GoDaddy.com*, 2016 WL 212676, at *56-57; *Konami Gaming*, 2018 WL 1020120, at *14.

More specifically, claim 1 recites “*a processor for controlling the display*” of first and second areas, wherein user selection of characters enables the display of thumbnails and wherein, upon deleting video information from one group, the video information continues to be included in the second group. Claim 21 recites “*a processor for removing one video information*” from a first group after the input interface receives a certain selection, wherein “*the one video information continues to be included in the second group*” and wherein “*the processor decrypts second video*

information” when the input interface receives a certain selection. Thus, claims 1 and 21 recite functions that require a processor (like the off-the-shelf Intel and AMD processors Maxell’s expert identified) with special programming. Wolfe Decl. ¶¶ 119, 132; Sourì Decl. ¶ 43; Sourì Tr. 144:4-146:18 (an Intel or AMD processor “needs to be programmed to do something according to the claims”).

Dr. Sourì makes the same mistake as Maxell’s other expert, Mr. Gray, discussed above, by only addressing whether the term connotes “sufficiently definite structure” and fails to address the second *Williamson* inquiry (whether the claim recites “sufficient structure for performing the recited function”). Sourì Decl. ¶ 41; *supra* § V.D.1. Like Mr. Gray, neither argues nor explains *how* a general-purpose processor itself would be sufficient structure for performing the functions recited in either claim 1 or claim 21. *See* Sourì Decl. ¶ 22, 41; Sourì Tr. 147:11–163:12; *see Net MoneyIN*, 545 F.3d at 1367.

2. Corresponding structure

“*Processor*” is indefinite because the ’815 Patent specification fails to disclose adequate corresponding structure to perform the claimed functions. *Williamson*, 792 F.3d at 1351-52. Maxell and its expert have not proposed any corresponding structure.

As explained, above, construing “*processor*” requires determining, for each claimed function, “what structure, if any, disclosed in the specification corresponds to [that] function.” *Williamson*, 792 F.3d at 1351. Here, the disclosed structure must be “an algorithm for performing the claimed function,” which converts a general-purpose processor into the structure needed to perform the claimed function. *Id.* at 1352; *Aristocrat*, 521 F.3d at 1333.

The specification fails to disclose any structure that performs the claimed functions, much less any algorithm or step-by-step process for programming any software to achieve “*controlling the display*” (claim 1) or “*removing*” or “*decrypt[ing]*” information (claim 21). Wolfe Decl. ¶¶ 117-

28. The specification does not even mention many of the terms in the claimed functions, such as “area,” “[first]/[second] character,” “video information,” “classification,” “group,” “user selection of the [first]/[second] character,” “one video information ... being deleted from the first group of video information,” and “continues to be included in the second group of video information” in claim 1, and “video information,” “removing one video information,” “group,” “a selection to remove the one video information,” “user profile,” “the one video information continues to be included in the second group of video information,” “continues to display a thumbnail corresponding to the one video information when the second character is selected,” and “processor decrypts second video information corresponding to a selected thumbnail” in claim 21.

To the extent the specification generally discloses any of the claimed functions, it does not clearly link or associate those functions with any structure in the specification. *See Williamson*, 792 F.3d at 1351–52. The only relevant portions of the specification with respect to the claimed functions are found at column 5, lines 28-35 and 47-56, and column 6, lines 54-56. However, those sections only describe high-level functionality and two examples of a menu display. *Id.* They do not clearly link or associate those high-level functions any disclosed structure.¹³ And even if it did, the specification certainly does not disclose any algorithm or step-by-step procedure for how software associated with the claimed “processor” would be programmed to perform the claimed functions. Wolfe Decl. ¶¶ 117-28.

Thus, VIZIO’s proposed construction should be adopted.

¹³ While the parties agree that the most likely component disclosed in the ’815 Patent for performing the claimed functions of the “processor” is control unit 317. Wolfe Decl., ¶ 118; Souri Decl., ¶ 44. However, the specification does not disclose any structure of control unit 317 or provide any details of its operation other than stating that it “controls the whole device to cause operation based on the user’s order input.” *Id.* at 5:47–51.

C. “*video information*”

Claim Term	Maxell’s Proposed Construction	VIZIO’s Proposed Construction
“ <i>video information</i> ” (claims 1, 21)	Plain and ordinary meaning	“video content represented as digital or analog data”

VIZIO’s construction is wholly consistent with the intrinsic record and Maxell’s previous representations to the PTAB with respect to the related U.S. Patent 9,384,783 (“the ’783 Patent”), which shares the same specification with the ’815 Patent. Wolfe Decl. ¶¶ 110-16.^{14,15}

As an initial matter, the ’815 Patent specification does not use the term “*video information*.” The term only appears in the claims. As explained, the ’815 Patent identifies Programs #1-3 in Figures 1 and 2 as “**AV data themselves** on the recording medium.” ’815 patent, 2:1-2, 3:48-54; Wolfe Decl. ¶ 113. The ’815 patent further explains that “Program Information #1-3a” and “Playlist Information #1-n” in Figure 1 are “locations” in memory where the underlying AV data are stored. *Id.* 7:57-8:18; Figs. 10-11. In the context of claims 1 and 21, a POSITA would have understood “*video information*” to refer to Programs #1-3 (*i.e.*, AV data) and not thumbnails or “locations” in memory. Wolfe Decl., ¶¶ 110–13.

In the prior ’783 patent litigation, Maxell agreed that “*video information*” means “video data represented by digital or analog signal.” *See* Ex. 21, IPR2018-01432 Patent Owner’s Preliminary Response at 9; Ex. 32, ’783 Patent, *Markman* Order. When asked to clarify its position during oral argument before the PTAB, Maxell confirmed that “*video information*” refers to only AV data and not to other information such as pointers or thumbnails. Ex. 22, IPR2018-01432 Oral

¹⁴ Maxell’s expert did not opine on this term and testified that Maxell did not ask him to do so. Souris Tr. 106:12-21, 113:7-17.

¹⁵ The ’783 Patent was previously asserted in *Maxell, Ltd. v. Fandango Media, LLC*, 2:17-cv-07534 (C.D. Cal. 2017) and subject to *inter partes* review in *Fandango Media, LLC v. Maxell, Ltd.*, IPR2018-01432 (PTAB, 2018). The parties offered the same, agreed construction of “*video information*” in both proceedings.

Hearing Transcript, 22:5–18, 27:1-8. For example:

[Q:] So, is a pointer video data represented by a digital or analog signal?

[A:] No.

Id., 28:7-9; *see also id.*, 22:5-18 (“[p]ointers are not video information”), 27:24–25 (“[a] thumbnail is [...] not video information”), 25:24-28:25.

The PTAB’s Final Written Decision invalidating all challenged claims adopted Maxell’s view that “*video information*” is “AV data.” Ex. 23, 11-13.

VIZIO’s proposed construction simply adopts Maxell’s prior position on this term. However, Maxell now seeks to reject it. Instead, Maxell proposes “plain and ordinary meaning” in an effort to improperly expand the scope of the claims to include other data (*e.g.*, pointers, thumbnails) that it has previously represented are not the claimed “*video information*.”

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CERTIFICATE OF SERVICE

I hereby certify that true and correct copies of the foregoing Respondent VIZIO, Inc.'s OPENING CLAIM CONSTRUCTION BRIEF was served this 26th day of January, 2023 on the following parties in the manner so indicated:

The Honorable Katherine M. Hiner Acting Secretary U.S. International Trade Commission 500 E Street, S.W. Washington, DC 20436	☒ Via Electronic Filing ☐ Via First Class Mail ☐ Via Hand Delivery ☐ Via Overnight Mail ☐ Via Electronic Mail
The Honorable Bryan F. Moore Administrative Law Judge U.S. International Trade Commission 500 E Street, S.W. Washington, DC 20436 Email: Moore337@usitc.gov	☒ Via Electronic Filing ☐ Via First Class Mail ☐ Via Hand Delivery ☐ Via Overnight Mail ☐ Via Electronic Mail ☒ Via Box
Jamie B. Beaber Mayer Brown LLP 1999 K St. NW Washington, DC 20006 Telephone: (202) 263-3000 Facsimile: (202) 263-3302 Email: Maxell-Vizio-Service@mayerbrown.com <i>Counsel for Complainant Maxell, Ltd.</i>	☐ Via Electronic Filing ☐ Via First Class Mail ☐ Via Hand Delivery ☐ Via Overnight Mail ☒ Via Electronic Mail

/s/ Melanie Langford

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