IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Beel

Inventors: Koen Beel *et al.*

Patent No.: 10,762,002

Filed: September 14, 2012

For: ELECTRONIC TOOL AND METHODS WITH AUDIO FOR MEETINGS

Request for Reexamination under U.S.C. §§ 302–307 and 37 C.F.R. § 1.510

Mail Stop *Ex Parte* Reexamination
ATTN: Central Reexamination Unit

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313–1450

Request for *Ex Parte* Reexamination of U.S. Patent No. 10,762,002

TABLE OF CONTENTS

Page

I. LIST OF EXHIBITS 7

II. INTRODUCTION 10

III. FACTUAL, PROCEDURAL, AND CLAIM CONSTRUCTION BACKGROUND 14

A. ADMISSIONS OF PRIOR ART TECHNIQUES 14
B. THE PURPORTED INVENTION 16
C. SUMMARY OF PROSECUTION HISTORY 17
D. THE *INTER PARTES* REVIEW OF THE '002 PATENT 19
E. CLAIM TERMS TO BE CONSTRUCTED 19

1. "*COUPLE*" / "*COUPLING*" (CLAIM 1) 20
2. "WIRELESS" (CLAIM 1) 20
3. "*PRE-INSTALLED GENERIC DRIVER*" (CLAIM 1) 20
4. "*PRE-INSTALLED GENERIC AUDIO DRIVER*" (CLAIM 1) 20
5. "*MEANS OF A FIRST PRE-INSTALLED GENERIC AUDIO DRIVER OF THE OPERATING SYSTEM*" (CLAIM 1) 21
6. "*MEANS OF A SECOND PRE-INSTALLED GENERIC DRIVER OF THE OPERATING SYSTEM*" (CLAIM 1) 21
7. "*MEANS FOR AUDIO COMMUNICATION BETWEEN THE PERIPHERAL DEVICE AND THE PROCESSING DEVICE*" (CLAIM 1) 21

"*A MEANS FOR DATA COMMUNICATION BETWEEN THE PERIPHERAL DEVICE AND THE PROCESSING DEVICE*" (CLAIM 1) 21

IV. REQUIREMENTS FOR *EX PARTE* REEXAMINATION UNDER 37 C.F.R. § 1.510 22

A. 37 C.F.R. § 1.510 (B)(1): STATEMENT POINTING OUT EACH SUBSTANTIAL NEW QUESTION OF PATENTABILITY 22
B. 37 C.F.R. § 1.510 (B)(2): DETAILED EXPLANATION OF THE PERTINENCE AND MANNER OF APPLYING THE PRIOR ART 22
C. 37 C.F.R. § 1.510 (B)(3): COPY OF EVERY PATENT OR PRINTED PUBLICATION CITED AGAINST THE CLAIMS 22
D. 37 C.F.R. § 1.510 (B)(4): COPY OF THE ENTIRE PATENT 23
E. 37 C.F.R. § 1.510 (B)(5): CERTIFICATION THAT A COPY OF THE REQUEST HAS BEEN SERVED IN ITS ENTIRETY ON THE PATENT OWNER 23
F. 37 C.F.R. § 1.510 (A): FEE FOR REQUESTING REEXAMINATION 23
G. RELATED CO-PENDING LITIGATION 23

V. SUMMARY OF THE PRIOR ART 24

A. KAPLAN (EX. 1027) 24

B. MAEDA (EX. 1031) 25
C. AHMED (EX. 1014) 26
D. DEFORCHE (EX. 1030) 28

VI. STATEMENTS ESTABLISHING SUBSTANTIAL NEW QUESTIONS OF PATENTABILITY ("SNQS") OF CLAIMS 29

A. SNQ NO. 1 – THE KAPLAN, AHMED, AND DEFORCHE RENDERS OBVIOUS CLAIMS 4-7 OF THE '002 PATENT UNDER 35 U.S.C. § 103. 30

1. CLAIM 1: E) ROUTING AUDIO DATA FROM THE PROCESSING DEVICE TO THE WIRELESS TRANSCEIVER VIA THE CONNECTOR OF THE PERIPHERAL DEVICE AND THE MEANS FOR AUDIO COMMUNICATION AND 31
2. CLAIM 4: *THE METHOD OF CLAIM 1 WHEREIN STEP B) COMPRISES PRESENTING THE PERIPHERAL DEVICE TO THE PROCESSING DEVICE AS A COMPOSITE DEVICE AND WHEREIN PRE-INSTALLED GENERIC DRIVERS DRIVE DIFFERENT DEVICE INTERFACES INDEPENDENTLY.* 32
3. CLAIM 5: *THE METHOD OF CLAIM 1, WHEREIN A CLIENT APPLICATION IS STORED ON THE PERIPHERAL DEVICE OBTAINS SCREEN SCRAPED DATA* 32
4. CLAIM 6: *THE METHOD OF CLAIM 5 WHEREIN THE CLIENT APPLICATION IS A PORTABLE APPLICATION.* 33
5. CLAIM 7: *THE METHOD OF CLAIM 1 WHEREIN THE PERIPHERAL DEVICE IS ADAPTED TO ANALYZE AN INCOMING SIGNAL FROM THE PROCESSING DEVICE AND IF NO AUDIO IS RECEIVED, THE INCOMING SIGNAL IS DISCARDED* 34
6. CLAIM 8: *THE METHOD OF CLAIM 7 WHEREIN IF AUDIO IS RECEIVED, THE PERIPHERAL DEVICE WILL INITIATE AN ADDITIONAL TCP/IP SOCKET CONNECTION TO THE BASE UNIT THROUGH THE COMMUNICATIONS NETWORK.* 34

B. SNQ NO. 2 – THE COMBINATION OF MAEDA, AHMED, AND DEFORCHE RENDERS OBVIOUS CLAIMS 4-7 OF THE '002 PATENT UNDER 35 U.S.C. § 103. 35

1. CLAIM 1: E) ROUTING AUDIO DATA FROM THE PROCESSING DEVICE TO THE WIRELESS TRANSCEIVER VIA THE CONNECTOR OF THE PERIPHERAL DEVICE AND THE MEANS FOR AUDIO COMMUNICATION AND 35
2. CLAIM 4: THE METHOD OF CLAIM 1 WHEREIN STEP B) COMPRISES PRESENTING THE PERIPHERAL DEVICE TO THE PROCESSING DEVICE AS A COMPOSITE DEVICE AND WHEREIN PRE-INSTALLED GENERIC DRIVERS DRIVE DIFFERENT DEVICE INTERFACES INDEPENDENTLY. 36
3. CLAIM 5: THE METHOD OF CLAIM 1, WHEREIN A CLIENT APPLICATION IS STORED ON THE PERIPHERAL DEVICE OBTAINS SCREEN SCRAPED DATA. 37
4. CLAIM 6: THE METHOD OF CLAIM 5 WHEREIN THE CLIENT APPLICATION IS A PORTABLE APPLICATION. 38
5. CLAIM 7: THE METHOD OF CLAIM 1 WHEREIN THE PERIPHERAL DEVICE IS ADAPTED TO ANALYZE AN INCOMING SIGNAL FROM THE PROCESSING DEVICE AND IF NO AUDIO IS RECEIVED, THE INCOMING SIGNAL IS

DISCARDED. 39
6. CLAIM 8: THE METHOD OF CLAIM 7 WHEREIN IF AUDIO IS RECEIVED, THE PERIPHERAL DEVICE WILL INITIATE AN ADDITIONAL TCP/IP SOCKET CONNECTION TO THE BASE UNIT THROUGH THE COMMUNICATIONS NETWORK. 39

VII. MANNER OF APPLYING THE CLAIMS AS REQUIRED BY 37 C.F.R. § 1.51 (B)(2) 40

A. GROUND 1 – THE COMBINATION OF KAPLAN, AHMED, DEFORCHE, AND THE KNOWLEDGE OF THE PERSON OF ORDINARY SKILL RENDERS OBVIOUS CLAIMS 4-7. 40

1. RATIONALE TO COMBINE 40
2. CLAIM 1 42

a) A method for connecting a processing device to a communications network, the processing device having a memory, a display and an operating system with pre-installed generic drivers providing a communications protocol for communication between the processing device and a class of peripheral devices, the method comprising 42
b) a) coupling an external peripheral device physically to a port of the processing device, wherein the peripheral device comprises a wireless transceiver and a connector, said connector configured to couple to the port of the processing device 44
c) b) setting up, by means of a first pre-installed generic audio driver of the operating system, a means for audio communication between the peripheral device and the processing device and 45
d) c) setting up … by means of a second pre-installed generic driver of the operating system, a means for data communication between the peripheral device and the processing device 48
e) d) using the peripheral device to connect the processing device to a communications network via the wireless transceiver 49
f) e) routing audio data from the processing device to the wireless transceiver via the connector of the peripheral device and the means for audio communication and 50
g) f) routing the audio data from the wireless transceiver of the peripheral device to a base node over the communications network 51
h) g) wherein the first pre-installed generic audio driver is used for transferring the audio data between the processing device and the peripheral device. 53

3. CLAIM 4 53

a) The method of claim 1 wherein Step b) comprises presenting the peripheral device to the processing device as a composite device and wherein pre-installed generic drivers drive different device interfaces independently. 53

4. CLAIM 5 53

a) The method of claim 1, wherein a client application is stored on the peripheral device obtains screen scraped data. 53

5. CLAIM 6 54

a) The method of claim 5 wherein the client application is a portable application. 54

6. CLAIM 7 56

a) The method of claim 1 wherein the peripheral device is adapted to analyze an incoming signal from the processing device and if no audio is received, the incoming signal is discarded. 56

7. CLAIM 8 57

b) The method of claim 7 wherein if audio is received, the peripheral device will initiate an additional TCP/IP socket connection to the base unit through the communications network. 57

B. GROUND 2 – MAEDA, AHMED, DEFORCHE, AND THE KNOWLEDGE OF THE PERSON OF ORDINARY SKILL RENDERS OBVIOUS CLAIMS 6. 57

1. RATIONALE TO COMBINE 57
2. CLAIM 1 58

a) A method for connecting a processing device to a communications network, the processing device having a memory, a display and an operating system with pre-installed generic drivers providing a communications protocol for communication between the processing device and a class of peripheral devices, the method comprising: 58

b) coupling an external peripheral device physically to a port of the processing device, wherein the peripheral device comprises a wireless transceiver and a connector, said connector configured to couple to the port of the processing device; 61

c) setting up, by means of a first pre-installed generic audio driver of the operating system, a means for audio

communication between the peripheral device and the processing device and 62
d) setting up … by means of a second pre-installed generic driver of the operating system, a means for data communication between the peripheral device and the processing device 65
e) using the peripheral device to connect the processing device to a communications network via the wireless transceiver;..... 67
f) routing audio data from the processing device to the wireless transceiver via the connector of the peripheral device and the means for audio communication and 67
g) routing the audio data from the wireless transceiver of the peripheral device to a base node over the communications network 68
h) wherein the first pre-installed generic audio driver is used for transferring the audio data between the processing device and the peripheral device. 69

3. CLAIM 4 69

i) The method of claim 1 wherein Step b) comprises presenting the peripheral device to the processing device as a composite device and wherein pre-installed generic drivers drive different device interfaces independently. 69

4. CLAIM 5 69

a) The method of claim 1, wherein a client application is stored on the peripheral device obtains screen scraped data. 69

5. CLAIM 6 71

a) The method of claim 5 wherein the client application is a portable application..... 71

6. CLAIM 7 72

a) The method of claim 1 wherein the peripheral device is adapted to analyze an incoming signal from the processing device and if no audio is received, the incoming signal is discarded. 72

7. CLAIM 8 73

b) The method of claim 7 wherein if audio is received, the peripheral device will initiate an additional TCP/IP socket connection to the base unit through the communications network. 73

VIII. BARCO'S CONCERNS WITH DR. ALMEROTH'S TESTIMONY SHOULD

NOT BE AFFORDED WEIGHT. 73

XI. CONCLUSION 78

I. LIST OF EXHIBITS

EXHIBIT	DESCRIPTION
Ex. 1001	U.S. Patent No. 10,762,002
Ex. 1002	Declaration of Kevin C. Almeroth, Ph.D.
Ex. 1003	Curriculum Vitae of Kevin C. Almeroth, Ph.D.
Ex. 1004	File History of U.S. Patent No. 10,762,002
Ex. 1005	U.S. Patent Application Publication No. 2005/0210390 ("Ono")
Ex. 1006	U.S. Patent Application Publication No. 2008/0074560 ("Ichieda")
Ex. 1007	U.S. Patent Application Publication No. 2006/0069840 ("Corbett")
Ex. 1008	**RESERVED**
Ex. 1009	English Translation of Japanese Patent Application Publication No. 2008-165007 ("Uchida")
Ex. 1010	Japanese Patent Application Publication No. 2008-165007
Ex. 1011	Certification for English Translation of Japanese Patent Application Publication No. 2008-165007
Ex. 1012	**RESERVED**
Ex. 1013	Office Form SB/08A/B
Ex. 1014	International Patent Application Publication No. 2006/113711 ("Ahmed")
Ex. 1015–Ex. 1019	**RESERVED**
Ex. 1020	U.S. Patent Application Publication No. 2010/0087139 ("Glass")
Ex. 1021	U.S. Patent Application Publication No. 2009/0198839 ("Banerjee")
Ex. 1022	U.S. Patent Application Publication No. 2011/0115689 ("Sugiyama")
Ex. 1023	U.S. Patent Application Publication No. 2009/0187687 (Hulbert")
Ex. 1024	U.S. Patent Application Publication No. 2003/0112975 ("Taiwanese")
Ex. 1025	**RESERVED**
Ex. 1026	U.S. Patent Application Publication No. 2009/0172219 ("Mardiks")
Ex. 1027	U.S. Patent Application Publication No. 2010/0295994 ("Kaplan")
Ex. 1028	**RESERVED**
Ex. 1029	**RESERVED**
Ex. 1030	EP Patent Application Publication No. 2107463 ("Deforche")
Ex. 1031	JP Patent Application Publication No. 2007-208606 ("Maeda")
Ex. 1032	**RESERVED**
Ex. 1033	U.S. Patent Application Publication No. 2002/0196378 ("Slobodin")
Ex. 1034	U.S. Patent Application Publication No. 2002/0174254 ("Kita")
Ex. 1035–Ex. 1049	**RESERVED**
Ex. 1050	Imation Wireless Projection Link User Guide
Ex. 1051	EZAir Press Release, "EZAir Wireless PC to TV Solutions Now Available Across Europe," March 16, 2011

Ex. 1052	Warpia Product Brief, "Wireless USB PC to TV Audio/Video Display Adapter," 2009
Ex. 1053	Q-Waves Product Overview, "Quicklink TV," November 2010
Ex. 1054	IOGear Installation Guide, "Wireless USB to VGA Kit," 2008
Ex. 1055	JP Patent Application Publication No. 2007-208606
Ex. 1056	Certification for English Translation of JP Patent Application Publication No. 2007-208606
Ex. 1057	**RESERVED**
Ex. 1058	U.S. Patent Application Publication No. 2011/0038005 ("Ochai")
Ex. 1059	U.S. Patent Application Publication No. 2006/0229100 ("Born")
Ex. 1060	U.S. Patent No. 7,207,059 ("Kurian")
Ex. 1061	U.S. Patent Application Publication No. 2007/0123251 ("McElvaney")
Ex. 1062	U.S. Patent Application Publication No. 2003/0036406 ("Huang")
Ex. 1063	U.S. Patent No. 5,913,174 ("Casarez")
Ex. 1064	U.S. Patent No. 6,717,801 ("Castell")
Ex. 1065	U.S. Patent No. 6,804,541 ("Muramatsu")
Ex. 1066	U.S. Patent No. 8,565,127 ("Leblanc")
Ex. 1067	CSE-800 User Guide
Ex. 1068	'237 Brogioli report (IPR2024-01437, Ex. 2004)
Ex. 1069	CSE-200 Base Unit Firmware
Ex. 1070	Brogioli '002 depo transcript
Ex. 1071	**RESERVED**
Ex. 1072	Brogioli '676 depo transcript
Ex. 1073	**RESERVED**
Ex. 1074	What is a driver? (https://learn.microsoft.com/en-us/windows-hardware/drivers/gettingstarted/what-is-a-driver-)
Ex. 1075	**RESERVED**
Ex. 1076	ClickShare C-5 Base Unit Datasheet
Ex. 1077	https://www.barco.com/en/inspiration/news-insights/2019-05-03-different-ways-to-share-your-content-with-clickshare (retrieved September 24, 2025).
Ex. 1078	**RESERVED**
Ex. 1079	Barco Driver Version Installed 18-7-2025 (https://www.barco.com/en/support/knowledge-base/12770-clickshare-windows-driver-version-installed)
Ex. 1080	"Why is ClickShare Windows Driver required and how can I install/update it on my PC?" (https://www.barco.com/en/support/knowledge-base/5676-clickshare-windows-driver-requirements-and-installation)
Ex. 1081	Minidrivers, Miniport drivers, and driver pairs (https://learn.microsoft.com/en-us/windows-hardware/drivers/gettingstarted/minidrivers-and-driver-pairs)
Ex. 1082	Yealink Press Release (https://www.yealink.com/en/product-detail/wireless-presentation-wpp30-eol)

Ex. 1083	Second Declaration of Declaration of Kevin C. Almeroth, Ph.D. from IPR2024-01436
Ex. 1084	Dr. Brogioli Dist. Ct. Transcript
Ex. 1085	USB Audio Class System Driver (Usbaudio.sys) (https://learn.microsoft.com/en-us/windows-hardware/drivers/audio/usb-audio-class-system-driver--usbaudio-sys-)
Ex. 1086	**RESERVED**
Ex. 1087	U.S. Patent No. 11,403,237
Ex. 1088	U.S. Patent No. 11,258,676
Ex. 1089	U.S. Patent No. 11,422,951
Ex. 1090	Patent Owner Preliminary Response (POPR) in IPR2024-01436
Ex. 1091	Petitioner's Reply to the POPR in IPR2024-01436
Ex. 1092	Patent Owner Sur Reply in IPR2024-01436
Ex. 1093	Institution Decision in IPR2024-01436
Ex. 1094	Patent Owner Response in IPR2024-01436
Ex. 1095	Petitioner's Reply in IPR2024-01436
Ex. 1096	Barco Press Release (https://www.barco.com/en/about/press-releases/barco-and-crestron-announce-patent-license-agreement-regarding-a)
Ex. 1097–Ex.1098	**RESERVED**
Ex. 1099	District Court Claim Construction Order
Ex. 1100	Ex. 2006 (transcript from IPR2024-01436)
Ex. 1101	Ex. 2030 from IPR2024-01436

I. LIST OF EXHIBITS 7

II. INTRODUCTION 14

III. FACTUAL, PROCEDURAL, AND CLAIM CONSTRUCTION BACKGROUND 14

A. ADMISSIONS OF PRIOR ART TECHNIQUES 14
B. THE PURPORTED INVENTION 16
C. SUMMARY OF PROSECUTION HISTORY 17
D. THE *INTER PARTES* REVIEW OF THE '002 PATENT 19
E. CLAIM TERMS TO BE CONSTRUCTED 19

1. "*COUPLE*" / "*COUPLING*" (CLAIM 1) 20
2. "WIRELESS" (CLAIM 1) 20
3. "*PRE-INSTALLED GENERIC DRIVER*" (CLAIM 1) 20
4. "*PRE-INSTALLED GENERIC AUDIO DRIVER*" (CLAIM 1) 20
5. "*MEANS OF A FIRST PRE-INSTALLED GENERIC AUDIO DRIVER OF THE OPERATING SYSTEM*" (CLAIM 1) 21
6. "*MEANS OF A SECOND PRE-INSTALLED GENERIC DRIVER OF THE OPERATING SYSTEM*" (CLAIM 1) 21
7. "*MEANS FOR AUDIO COMMUNICATION BETWEEN THE PERIPHERAL DEVICE AND THE PROCESSING DEVICE*" (CLAIM 1) 21

"*A MEANS FOR DATA COMMUNICATION BETWEEN THE PERIPHERAL DEVICE AND THE PROCESSING DEVICE*" (CLAIM 1) 21

IV. REQUIREMENTS FOR *EX PARTE* REEXAMINATION UNDER 37 C.F.R. § 1.510 22

A. 37 C.F.R. § 1.510 (B)(1): STATEMENT POINTING OUT EACH SUBSTANTIAL NEW QUESTION OF PATENTABILITY 22
B. 37 C.F.R. § 1.510 (B)(2): DETAILED EXPLANATION OF THE PERTINENCE AND MANNER OF APPLYING THE PRIOR ART 22
C. 37 C.F.R. § 1.510 (B)(3): COPY OF EVERY PATENT OR PRINTED PUBLICATION CITED AGAINST THE CLAIMS 22
D. 37 C.F.R. § 1.510 (B)(4): COPY OF THE ENTIRE PATENT 23
E. 37 C.F.R. § 1.510 (B)(5): CERTIFICATION THAT A COPY OF THE REQUEST HAS BEEN SERVED IN ITS ENTIRETY ON THE PATENT OWNER 23
F. 37 C.F.R. § 1.510 (A): FEE FOR REQUESTING REEXAMINATION 23
G. RELATED CO-PENDING LITIGATION 23

V. SUMMARY OF THE PRIOR ART 24

A. KAPLAN (EX. 1027) 24
B. MAEDA (EX. 1031) 25
C. AHMED (EX. 1014) 26
D. DEFORCHE (EX. 1030) 28

VI. STATEMENTS ESTABLISHING SUBSTANTIAL NEW QUESTIONS OF PATENTABILITY ("SNQS") OF CLAIMS 29

A. SNQ NO. 1 – THE KAPLAN, AHMED, AND DEFORCHE RENDERS OBVIOUS CLAIMS 4-7 OF THE '002 PATENT UNDER 35 U.S.C. § 103. 30

1. CLAIM 1: E) ROUTING AUDIO DATA FROM THE PROCESSING DEVICE TO THE WIRELESS TRANSCEIVER VIA THE CONNECTOR OF THE PERIPHERAL DEVICE AND THE MEANS FOR AUDIO COMMUNICATION AND 31
2. CLAIM 4: *THE METHOD OF CLAIM 1 WHEREIN STEP B) COMPRISES PRESENTING THE PERIPHERAL DEVICE TO THE PROCESSING DEVICE AS A COMPOSITE DEVICE AND WHEREIN PRE-INSTALLED GENERIC DRIVERS DRIVE DIFFERENT DEVICE INTERFACES INDEPENDENTLY.* 32
3. CLAIM 5: *THE METHOD OF CLAIM 1, WHEREIN A CLIENT APPLICATION IS STORED ON THE PERIPHERAL DEVICE OBTAINS SCREEN SCRAPED DATA* 32
4. CLAIM 6: *THE METHOD OF CLAIM 5 WHEREIN THE CLIENT APPLICATION IS A PORTABLE APPLICATION.* 33
5. CLAIM 7: *THE METHOD OF CLAIM 1 WHEREIN THE PERIPHERAL DEVICE IS ADAPTED TO ANALYZE AN INCOMING SIGNAL FROM THE PROCESSING DEVICE AND IF NO AUDIO IS RECEIVED, THE INCOMING SIGNAL IS DISCARDED* 34
6. CLAIM 8: *THE METHOD OF CLAIM 7 WHEREIN IF AUDIO IS RECEIVED, THE PERIPHERAL DEVICE WILL INITIATE AN ADDITIONAL TCP/IP SOCKET CONNECTION TO THE BASE UNIT THROUGH THE COMMUNICATIONS NETWORK.* 34

B. SNQ NO. 2 – THE COMBINATION OF MAEDA, AHMED, AND DEFORCHE RENDERS OBVIOUS CLAIMS 4-7 OF THE '002 PATENT UNDER 35 U.S.C. § 103. 35

1. CLAIM 1: E) ROUTING AUDIO DATA FROM THE PROCESSING DEVICE TO THE WIRELESS TRANSCEIVER VIA THE CONNECTOR OF THE PERIPHERAL DEVICE AND THE MEANS FOR AUDIO COMMUNICATION AND 35
2. CLAIM 4: THE METHOD OF CLAIM 1 WHEREIN STEP B) COMPRISES PRESENTING THE PERIPHERAL DEVICE TO THE PROCESSING DEVICE AS A COMPOSITE DEVICE AND WHEREIN PRE-INSTALLED GENERIC DRIVERS DRIVE DIFFERENT DEVICE INTERFACES INDEPENDENTLY. 36
3. CLAIM 5: THE METHOD OF CLAIM 1, WHEREIN A CLIENT APPLICATION IS STORED ON THE PERIPHERAL DEVICE OBTAINS SCREEN SCRAPED DATA. 37
4. CLAIM 6: THE METHOD OF CLAIM 5 WHEREIN THE CLIENT APPLICATION IS A PORTABLE APPLICATION. 38
5. CLAIM 7: THE METHOD OF CLAIM 1 WHEREIN THE PERIPHERAL DEVICE IS ADAPTED TO ANALYZE AN INCOMING SIGNAL FROM THE PROCESSING DEVICE AND IF NO AUDIO IS RECEIVED, THE INCOMING SIGNAL IS DISCARDED. 39
6. CLAIM 8: THE METHOD OF CLAIM 7 WHEREIN IF AUDIO IS RECEIVED, THE PERIPHERAL DEVICE WILL INITIATE AN ADDITIONAL TCP/IP

SOCKET CONNECTION TO THE BASE UNIT THROUGH THE COMMUNICATIONS NETWORK. 39

VII. MANNER OF APPLYING THE CLAIMS AS REQUIRED BY 37 C.F.R. § 1.51 (B)(2) 40

A. GROUND 1 – THE COMBINATION OF KAPLAN, AHMED, DEFORCHE, AND THE KNOWLEDGE OF THE PERSON OF ORDINARY SKILL RENDERS OBVIOUS CLAIMS 4-7. 40

1. RATIONALE TO COMBINE 40
2. CLAIM 1 42
3. CLAIM 4 53
4. CLAIM 5 53
5. CLAIM 6 54
6. CLAIM 7 56
7. CLAIM 8 57

B. GROUND 2 – MAEDA, AHMED, DEFORCHE, AND THE KNOWLEDGE OF THE PERSON OF ORDINARY SKILL RENDERS OBVIOUS CLAIMS 6. 57

1. RATIONALE TO COMBINE 57
2. CLAIM 1 58
3. CLAIM 4 69
4. CLAIM 5 69
5. CLAIM 6 71
6. CLAIM 7 72
7. CLAIM 8 73

VIII. BARCO'S CONCERNS WITH DR. ALMEROTH'S TESTIMONY SHOULD NOT BE AFFORDED WEIGHT. 73

IX. SECONDARY CONSIDERATIONS DO NOT OVERCOME THE STRONG GROUNDS OF REJECTION 74

A. BARCO'S CLICKSHARE PRODUCT LACKS NEXUS BECAUSE IT IS NOT ESSENTIALLY THE CLAIMED INVENTION. 74

B. BARCO FAILED TO DEMONSTRATE "COMMERCIAL SUCCESS" DUE TO THE CLAIMED FEATURES. 75

C. BARCO FAILED TO SHOW THE '002 PATENT COVERS CRESTRON'S PRODUCTS. 76

X. THE PROPOSED GROUNDS ARE NOT SUBSTANTIALLY THE SAME AS PREVIOUSLY CONSIDERED ART OR ARGUMENTS 77

A. FACTORS (A), (B) AND (D): "(A) THE SIMILARITIES AND MATERIAL DIFFERENCES BETWEEN THE ASSERTED ART AND THE PRIOR ART INVOLVED DURING EXAMINATION; (B) THE CUMULATIVE NATURE OF THE ASSERTED ART AND THE PRIOR ART EVALUATED DURING EXAMINATION;

(D) THE EXTENT OF THE OVERLAP BETWEEN THE ARGUMENTS MADE DURING EXAMINATION AND THE MANNER IN WHICH PETITIONER RELIES ON THE PRIOR ART." 77

B. FACTORS (C), (E), AND (F): "(C) THE EXTENT TO WHICH THE ASSERTED ART WAS EVALUATED DURING EXAMINATION, INCLUDING WHETHER THE PRIOR ART WAS THE BASIS FOR REJECTION; (E) WHETHER PETITIONER HAS POINTED OUT SUFFICIENTLY HOW THE EXAMINER ERRED IN ITS EVALUATION OF THE ASSERTED PRIOR ART; (F) THE EXTENT TO WHICH ADDITIONAL EVIDENCE AND FACTS PRESENTED IN THIS PETITION WARRANT RECONSIDERATION OF THE PRIOR ART OR ARGUMENTS." 78

XI. CONCLUSION 78

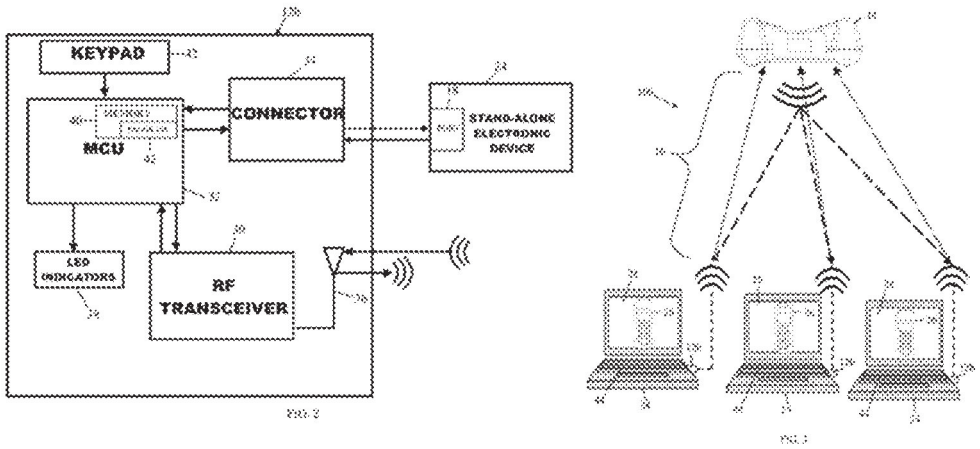
II. INTRODUCTION

Pursuant to 37 C.F.R. § 1.510, the requester respectfully requests reexamination of claims 4-7 of U.S. Patent No. 10,762,002 ("the '002 patent"), and a finding that claims 4-7 are unpatentable for the reasons set forth in SNQ Nos. 1–2.

III. FACTUAL, PROCEDURAL, AND CLAIM CONSTRUCTION BACKGROUND

A. Admissions of Prior Art Techniques

The '002 patent recognizes an "explosion of communication electronic communication tools" and acknowledges the known desirability for tools allowing greater participation in meetings. Ex. 1001, 1:19-27, 2:18-35; Ex. 1002, ¶¶54-55. The '002 patent mentions U.S. 2010/0087139 Ex. 1020 ("Glass")) using a USB dongle to turn an electronic device into an audience-participation device. Ex. 1001, 2:18-35; Ex. 1020, abstract; Ex. 1002, ¶55. Specifically, Glass discloses linkable response units 12b, coupled by a connector (*e.g.*, a USB plug) to a port in electronic device 24 (*e.g.*, laptops), wirelessly transfer information via a wireless transceiver 30 to a base station 14, which in turn may be displayed on a screen. *Id.*, ¶¶13, 18, 20, 30; Ex. 1002, ¶55. Linkable response unit 12b also includes keypad/buttons 46 to trigger this transmission and program 42 stored on the response unit 12b enables communication between the various devices. Ex. 1020, ¶¶21, 24-26, 33; Ex. 1002, ¶55.



Ex. 1020, FIGs. 2-3.1

The '002 patent recognizes and concedes that transferring content between devices was known and discloses three common techniques for transferring content of a computer to a projector. Ex. 1001, 3:3-15; Ex. 1002, ¶56. "The most common ways are to use a cable that connects the display adapter of the graphics card to the video input of the projector [method 1] or to use a software that captures the display contents and sends it over a wired or wireless network to a remote base unit connected to the projector [method 2]." *Id.* A known alternative was "to use a special device connected to the display adapter of the graphics card that captures, encodes and streams the display content over a wired or wireless network [method 3]." *Id.*

The '002 patent identifies U.S. 2009/0198839 Ex. 1021 ("Banerjee")) and U.S. 2011/0115689 Ex. 1022 ("Sugiyama")) as known prior art techniques for such transmission. Ex. 1001, 3:65-4:5; Ex. 1002, ¶57. The '002 patent concedes these references describe the use of the "well-known USB interface of the computer for extracting the display content of the computer" and transmitting to a projector. *Id.* For example, Banerjee's disclosed plug-and-play device 236 "captures … screen display data generated at the remote computer 240 and allows screen sharing between the remote computer 240 and the master computer 238." Ex. 1021, ¶39, 52, 54; Ex. 1002, ¶¶57-58.

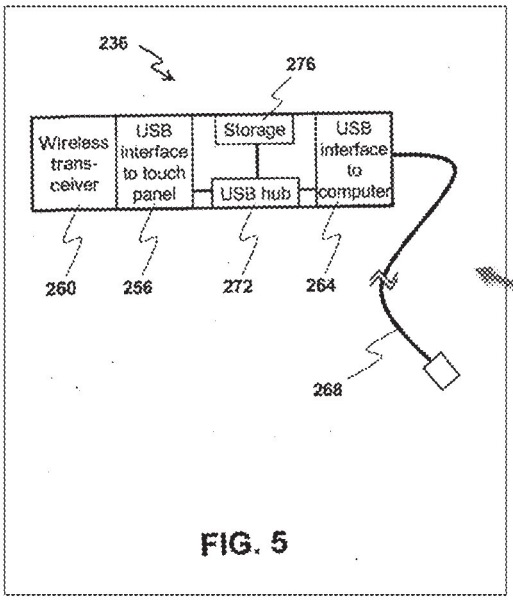


FIG. 5

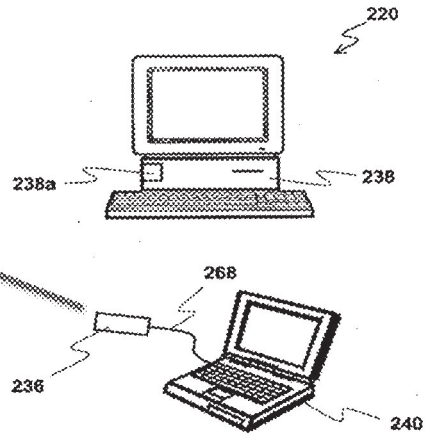


FIG. 4

Ex. 1021, FIGs. 4-5.

B. The Purported Invention.

The '002 patent recognized problems with previous meeting technologies, such as "high demands of technical expertise" and "barriers to the use of complicated technology" and sought to improve these known issues. Ex. 1001, 4:40-52; Ex. 1002 at ¶¶59-61. Yet, the '002 claims a system that simply wirelessly communicates media content between an electronic device and a display via a peripheral device and base node—much like the acknowledged prior art. *See id.*, 3:65-4:5, 33:41-36:29; Ex. 1002 at ¶¶59-60; Section III.A.

Notably, the examiner stated the reason for allowance was that "'routing audio data between the processing device and communication … to a base node." Ex. 1004, 601-06 (emphasis removed). However, routing audio data from a processing device to a wireless transceiver and from the wireless transceiver of the peripheral device to a base node was well known in the art. Ex. 1026, ¶¶3, 10; Ex. 1002, ¶61.

Despite the assertions of the '002 patent and its prosecution history, all features recited in the challenged claims were already known and could have been combined according to their ordinary functions. Ex. 1002, ¶¶60-61.

C. Summary of Prosecution History

The examiner initially rejected the claims as anticipated by US 2007/0033289 ("Nuyttens"). Ex. 1004, 1423-28; Ex. 1002, ¶¶62-64.2 In response, Patent Owner filed a Request for Reconsideration, arguing that while Nuyttens disclosed a "standard structure in the sense that the video comes in from the network, is decoded, rendered and then displayed, [that was] not the invention recited in the claims." Ex. 1004, 1247-55 (response of 8/30/2017). Instead, Patent Owner argued, "the skilled person would have understood that [Nuyttens] functional blocks are installed cards that are part of the computer, as opposed to a peripheral device." *Id.* (emphasis added). The examiner maintained its rejection in a Final Office Action. Ex. 1004, 1064-76.

In response, Patent Owner amended the claims to include the additional limitation "coupling [[a]] an external peripheral device physically to a port of [[to]] the processing device" and requiring "using the peripheral device to connect the processing device to a communications network." Ex. 1004, 945-51 (response of 1/22/2018)) (underlining in original). The examiner issued a second non-final rejection, finding the amended claims obvious over Nuyttens in further view of US 2009/0247006 ("Thompson"). Ex. 1004, 901-14. The examiner additionally cited US 2004/0125777, US 2007/0065078, and US 2013/0054348 as considered pertinent to applicant's disclosure. *See* Ex. 1004, 913.

Patent Owner amended the independent claims, whereafter the examiner issued a Notice of Allowance, specifically, in regard to Patent Owner's newly added limitations, in relevant part, of: (1) "routing audio data between the processing device and the communication network via the means for audio communication and the transceiver to a base node", and (2) "wherein the

peripheral device comprises an audio adapter." Ex. 1004, 601-06, 850-54 (response of 7/24/2018) (underline in original). The examiner stated the reason for allowance was that the "'routing audio data between the processing device and communication… to a base node; … wherein the peripheral device comprises an audio output device." [sic] in combination with the corresponding claimed structure is not taught by the cited prior art on record." Ex. 1004, 601-06 (underline in original).

Thereafter, Patent Owner filed a supplemental response after allowance to amend the claims and remove the "wherein the peripheral device comprises an audio output adapter" limitation, arguing in support of the amended claims that "the skilled person would have understood that the features recited in the claims are at least directed to ... using an audio interface without the need of special driver installation," which the Nuyttens/Thompson failed to result in. Ex. 1004, 561-66, 571-75 (Supplemental response of March 15, 2019)). Patent Owner further amended the structure of the claims but, however, such amendments did not alter the substance of routing audio data from a processing device "to a base node" (Patent Owner, instead, only changed the limitation from the audio data be routed from "between the processing device and the communications network … to a base node" to audio data be routed "from the processing device to the wireless transceiver … [and] from the wireless transceiver of the peripheral device to a base node"). Ex. 1004, 542-47 (*S*upplemental response of 4/19/2019)), 571-75. The examiner maintained its allowance of the amended claims based on this language. Ex. 1004, 340-41.

However, the examiner did not discuss on the record the prior art references asserted in this petition. The prior art discussed on the record, while related to network systems, focuses on different problems in the art, however, and does not discuss, at least, external peripheral devices

physically connected to a processing device for connecting, and transferring data between, the processing device to a communications network. Ex. 1002, ¶¶62-64.

D. The *Inter Partes* Review of the '002 Patent

The '002 patent is the subject of IPR2024-01436. *See* Exs. 1090-1095; Ex. 1002, ¶¶65, 218-221. The patent owner preliminary response argued that the cited prior art references failed to render obvious "setting up, by means of a first pre-installed generic audio driver, a means for audio communication" and "routing audio data from the processing device to the peripheral device via the connector and the means for audio communication," Ex. 1090. In response, the petitioner identified errors in the patent owner's analysis of the prior art and other deficiencies in the paten owner's arguments. Ex. 1091. In the patent owner sur reply, similar arguments were reiterated to those presented in the preliminary response. Ex. 1092. Ultimately, the Board instituted review of claims 1–3, 9–11, 19, 21, and 22 on April 8, 2025. Ex. 1093. In a subsequent response, the patent owner again argued that the cited references fail to render obvious the "setting up" and "routing" limitations. Ex. 1094. In response, the petitioner again points out deficiencies in the patent owner's arguments and reiterates that a person of ordinary skill would be motivated to use the ubiquitous, pre-installed operating system drivers (e.g., USB Audio/HID/MSD) taught by Deforche into the systems of Kaplan and Maeda using known techniques with a reasonable expectation of success. Ex. 1095. Claims 4-7 at issue in the present request are not at issue in that IPR.

E. Claim Terms to be Constructed

The claim terms are presented by the requestor under 37 C.F.R. § 1.555(b) and MPEP § 2111. Each term of the claims is to be given its "broadest reasonable construction" consistent with the specification. MPEP § 2111; *In re Swanson*, 540 F.3d 1368, 1377–78 (Fed.Cir.2008); *In re Trans Texas Holding Corp.*, 498 F.3d 1290, 1298 (Fed. Cir. 2007) (*citing In re Yamamoto*, 740 F.2d 1569, 1571 (Fed. Cir. 1984). As the Federal Circuit noted in *Trans Texas*, the Office has

traditionally applied a broader standard than a Court does when interpreting claim scope. MPEP § 2111. The Office applies to the verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art. *In re Morris*, 127 F.3d 1048, 1054–55, 44 U.S.P.Q.2d 1023, 1027–28 (Fed. Cir. 1997). Applying the "broadest reasonable construction" standard reduces the possibility that a claim, after issue or certificate of reexamination, will be interpreted more broadly than is justified. 37 C.F.R. § 1.555(b); MPEP § 2111.

1. "*couple*" / "*coupling*" (claim 1)

The term "'coupled', also used in the description or claims, should not be interpreted as being restricted to direct connections only." Ex. 1001, 15:44-52; *See* Ex. 1002, ¶71.

2. "wireless" (claim 1)

The term "'wireless' can be any network that does not use cable links between nodes, e.g. … WLAN … or any other wireless communication network known to the [POSITA]." (*Id.*, 14:14-20; *See* Ex. 1002, ¶72.

3. "*pre-installed generic driver*" (claim 1)

The term "'pre-installed generic driver' is intended to mean a driver which is installed on a processing device such as a computer as a standard driver, e.g. is installed with the installation of the operating system." (*Id.*, 14:32-46; *See* Ex. 1002, ¶73.

4. "*pre-installed generic audio driver*" (claim 1)

This limitation is similar to the "*pre-installed generic driver*"; however, this limitation is specific to audio hardware as opposed to other hardware, such as human-interface devices. *See id.*, 14:32-46, 30:38-43; *See* Ex. 1002, ¶74.

5. "*means of a first pre-installed generic audio driver of the operating system*" (claim 1)

This limitation is similar to the "*pre-installed generic driver.*" The structure of the limitation is the software used to allow software to communicate with audio hardware. *See id.*, 14:32-46, 30:38-43; *See* Ex. 1002, ¶75.

6. "*means of a second pre-installed generic driver of the operating system*" (claim 1)

This limitation is similar to the "pre-installed generic driver." The structure of the limitation is the software used to allow software to communicate with hardware. See id., 14:32-46; See Ex. 1002, ¶76.

7. **"*means for audio communication between the peripheral device and the processing device*" (claim 1)**

"*a means for data communication between the peripheral device and the processing device*" (claim 1)

The term "*means for audio communication*" and "*means for data communication*" invokes means-plus-function language and refers to the structure of an interface using the "*generic communications protocol*" of claim 1, 11, and 21. Ex. 1099, p. 16. The district court construed these terms according to:

Disputed Term	The Court's Construction
"means for audio communication" ('002 Patent, Claim 1)	Governed by 35 U.S.C. § 112 ¶ 6 **Function:** Provide audio communication between the peripheral device and the processing device **Structure:** "an interface using a generic communications protocol"
"means for data communication" ('002 Patent, Claim 1)	Governed by 35 U.S.C. § 112 ¶ 6 **Function:** Provide data communication between the peripheral device and the processing device **Structure:** "an interface using a generic communications protocol"

Ex. 1099, p. 16; *see also* Ex. 1002, ¶77-78.

IV. REQUIREMENTS FOR *EX PARTE* REEXAMINATION UNDER 37 C.F.R. § 1.510

Requester satisfies each requirement for *ex parte* reexamination of the '002 patent as stated below.

A. 37 C.F.R. § 1.510 (b)(1): Statement Pointing Out Each Substantial New Question Of Patentability

Please Section VI below.

B. 37 C.F.R. § 1.510 (b)(2): Detailed Explanation Of The Pertinence And Manner Of Applying The Prior Art

Please see Section VII below.

C. 37 C.F.R. § 1.510 (b)(3): Copy Of Every Patent Or Printed Publication Cited Against The Claims

References Ex. 1027, Ex. 1031, Ex. 1014, and Ex. 1030 are also listed on Exhibit PTO–SB/08 (*i.e.*, Form PTO–SB/08). Each of these references constitutes effective prior art on the claims of the '002 patent under 35 U.S.C. §103 as explained in greater detail below.

D. 37 C.F.R. § 1.510 (b)(4): Copy of the Entire Patent

A full copy of U.S. Patent No. 10,762,002 is submitted herein as Ex. 1001 under 37 C.F.R. § 1.510(b)(4).

E. 37 C.F.R. § 1.510 (b)(5): Certification that a Copy of the Request has been served in its Entirety on the Patent Owner

A complete copy of this request is being served on the patent owner under 37 C.F.R. § 1.510(b)(5) at the correspondence address in PAIR on this date, as well as a courtesy copy at another known address:

BACON & THOMAS, PLLC
201 N. Union St.
Suite 320
Alexandria, VA 22314

and

52835 - HSML P.C.
45 South Seventh Street
Suite 2700
Minneapolis, MN 55402-1683

F. 37 C.F.R. § 1.510 (a): Fee for Requesting Reexamination

Under 37 C.F.R. § 1.510(a), the reexamination fee has been paid as part of the Patent Center submission. Any deficiency or overpayment may be debited/credited to Deposit Account No. 19-3140.

G. Related Co-Pending Litigation

The '002 patent is at issue in *Barco, Inc. et al v. Yealink (USA) Network Technology Co., Ltd.*, 2:2023-cv-521 EDTX), filed November 14, 2023 ("EDTX case"). The '002 patent is also the subject of IPR2024-01436, but claims 4-7 are not at issue in that IPR.

The requester, under 35 U.S.C. § 305, respectfully urges this request be granted and the reexamination be conducted not only with "special dispatch," but also with "priority over all other cases" under MPEP § 2261.

V. SUMMARY OF THE PRIOR ART

At the time of the alleged invention, media sharing between electronic devices was well established and used to share media data between devices in a variety of methods and settings. The technology allegedly invented was available well before the alleged invention, including a wide array of electronic tools to facilitate meetings and share content among individuals, particularly in business and educational settings. *See generally*, Ex. 1002, ¶¶38-53.

A brief description of the prior relied upon in this reexamination appears below.

A. Kaplan (Ex. 1027)

Like the '002 patent, Kaplan discusses transmitting video content between a computing device and display device that provided numerous benefits over alternative systems. Ex. 1027, abstract; Ex. 1002, ¶¶79-81. Kaplan's communications system 100 describes that a computer 220 is wirelessly connected to a display device 210 via a USB transmitter 120. *See, e.g.*, Ex. 1027, ¶¶16-18 and FIG. 2, reproduced below; Ex. 1002, ¶80. The transmitter 120 and a receiver 110 come pre-paired, with the receiver 110 further being connected to the display device 210—therefore, the process avoids requiring an end-user to configure the wireless connection. Ex. 1027, ¶18; Ex. 1002, ¶80. In Kaplan's disclosed system, "the user may select a video to be played and the selected video footage may be transmitted from the computer 220 through the transmitter 120 to the receiver 110 and then displayed on the display device 210." Ex. 1027, ¶28; Ex. 1002, ¶80.

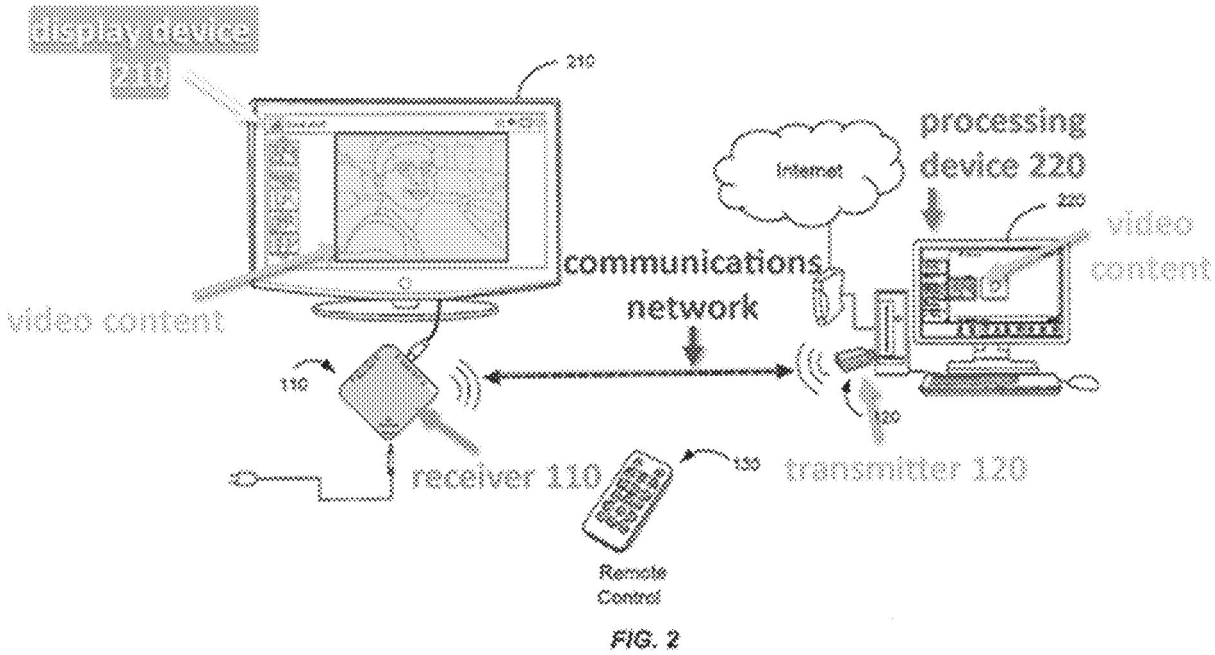
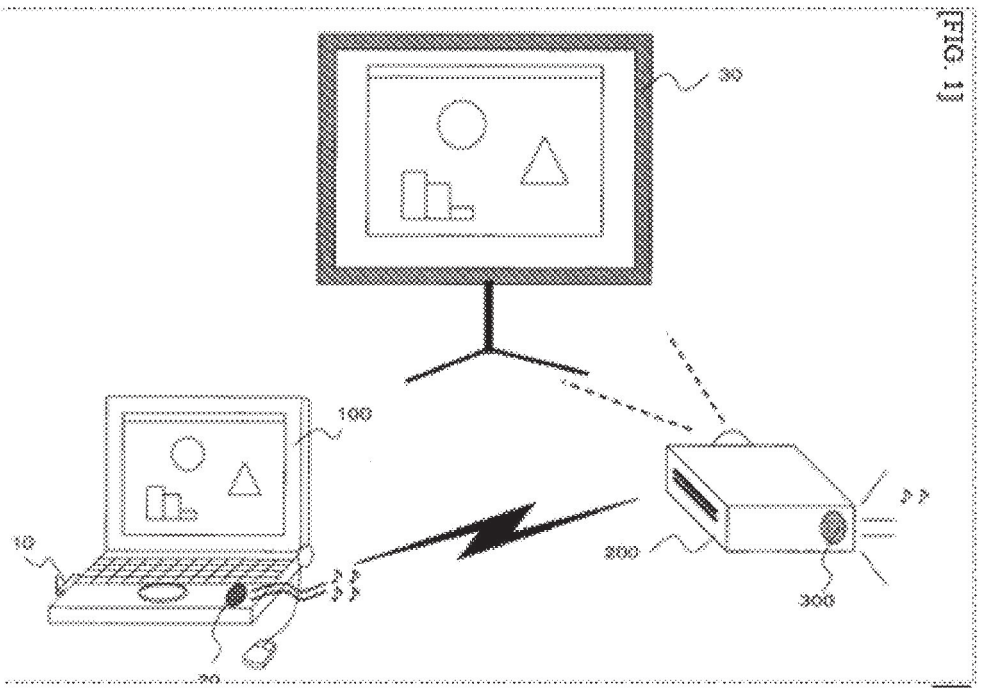


FIG. 2

Ex. 1027, FIG. 1.

B. Maeda (Ex. 1031)

Like the '002 patent, Maeda recognized common issues with alternative systems and, thus, discloses a separate system using a personal computer (PC) to generate images and audio and which transmits such data to a projector using a wireless local area network (LAN). Ex. 1031, ¶3, 15; Ex. 1002, ¶¶82-83. In operation, the "screen displayed on the display of PC 100 is transmitted from PC 100 to projector 200 and the screen received by projector 200 is projected onto a screen 30. A wireless LAN card 10 containing a wireless LAN chip is attached to PC 100, thereby transmitting image signals and audio signals to projector 200 via the wireless LAN." Ex. 1031, ¶17; Ex. 1002, ¶83.



Ex. 1031, FIG. 1.

C. Ahmed (Ex. 1014)

Like the '002 patent, Ahmed is directed to wireless, real-time transmission of data from a source to a monitor and the automatic configuration of a wireless device. Ex. 1014, abstract; Ex. 1002, ¶¶84-85. Ahmed's computing device 101 *S*uch as a PC) communicates, via wireless network 102, with remote monitor 103 *S*uch as a TV) using a "processing system on a chip capable of wirelessly transmitting and receiving graphics, [and] audio" and which may be "incorporated into a standalone device that is in wired communication with the remote monitor 103 or computing device 101." Ex. 1014, 7:6-22; Ex. 1002, ¶84.

Further, software module 301 is capable of capturing media in real time while it is playing on the computing device and temporarily stores the captured media in the buffer before compressing it and preparing it for transmission. Ex. 1014, 8:18-22; Ex. 1002, ¶85. Thereafter, a receiver 400, comprising a transceiver 401, a display device 403 for rendering the video media and

an audio device 404 for rending the audio data, receives the transmitted video and audio media. Ex. 1014, 8:24-29; Ex. 1002, ¶85. Ahmed further discloses that it preferably uses a hybrid TCP/UDP transmission protocol to transmit the video and audio data in separate streams. Ex. 1014, 19:16-19; Ex. 1002, ¶85.

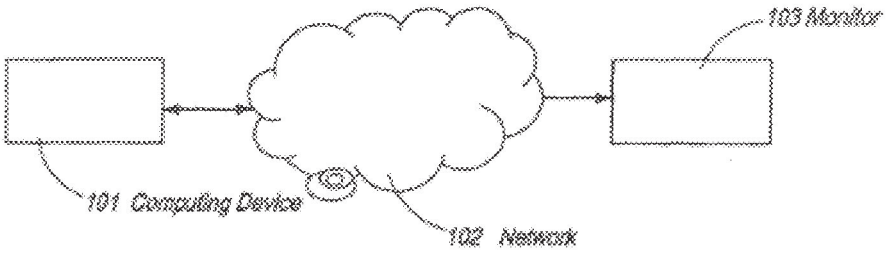


FIG. 1

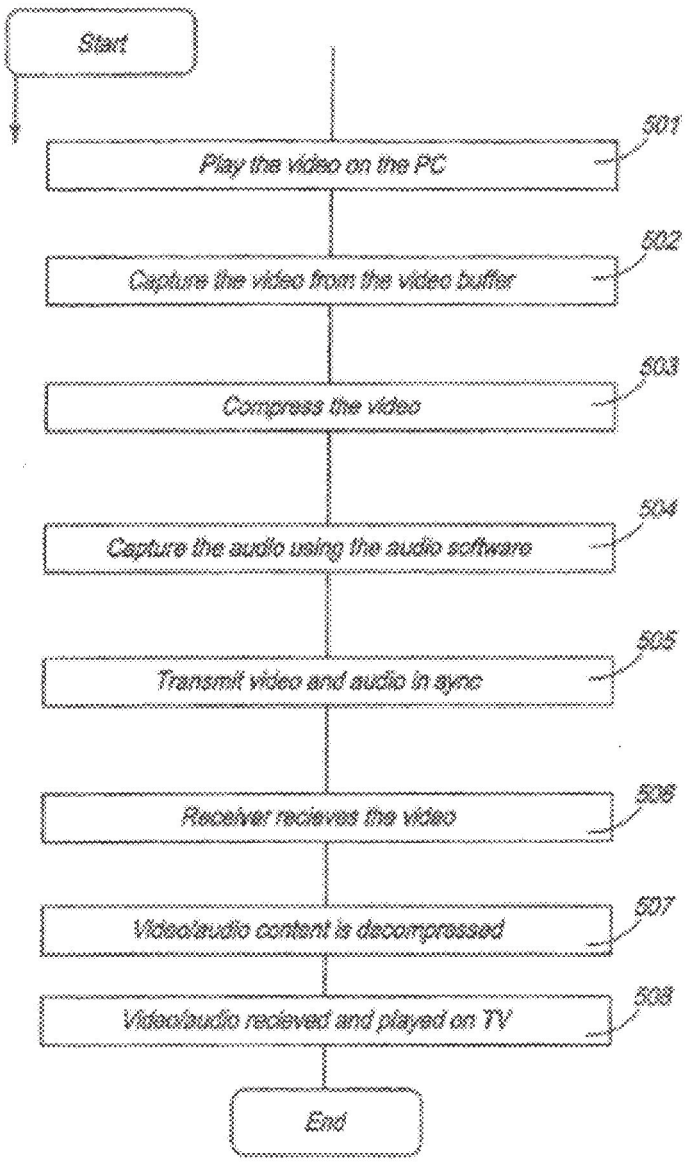


FIG. 5

Ex. 1014, FIGs. 1, 5.

D. Deforche (Ex. 1030)

Similar to the '002 patent, Deforche connects a host computer to a wireless communication network via "at least one pre-installed generic driver providing a generic communications protocol (7) for communication between the host computer device and a standard class of computer peripheral devices." Ex. 1030, abstract; Ex. 1002, ¶86-87. Deforche defined a "pre-installed

generic driver" as "a driver which is installed on the computer device along with the installation of the operating system, *i.e.* a driver which is standard for the operating system and which is capable of driving a standard class of computer peripheral devices connected to the computer device without requiring installation of a specific driver….[such as] a human interface device (HID)….[or] a mass storage device (MSD) driver." Ex. 1030, ¶10; Ex. 1002, ¶86. Notably, Deforche notes how "HID and MSD drivers [were] known per se in the art." Ex. 1030, ¶10; Ex. 1002, ¶86.

In operation, the "[d]ata traffic from the computer device towards the wireless communication network and vice versa is routed over this modem/host communication interface and uses the generic communication protocol provided by the pre-installed generic driver." Ex. 1030, ¶9; Ex. 1002, ¶87. According to Deforche, its disclosed method provided additional benefits over alternative systems, specifically, in that users avoided the "need for a specific driver for the communication between the wireless modem device and the computer device" to be downloaded/installed, increasingly important for users with restricted user rights, *i.e.*, user rights do not allow for installation of the necessary driver to the device, and that the method leaves "zero footprint, *i.e.* the wireless modem device "leaves no trace … on the computer device." Ex. 1030, ¶¶9, 16; Ex. 1002, ¶87.

VI. STATEMENTS ESTABLISHING SUBSTANTIAL NEW QUESTIONS OF PATENTABILITY ("SNQs") OF CLAIMS

Requestor respectfully submits that the SNQs identified below satisfy the SNQ requirement. The specific rationale for each substantial new question of patentability ("SNQ") based on the cited patents, and a separate detailed explanation of the pertinence and manner of applying the prior art patents to the challenged claims are presented below under 37 C.F.R. § 1.510 (b)(1) and (b)(2).

Claim 4 further limits step b of claim 1 to include "*presenting the peripheral device to the processing device as a composite device and wherein pre-installed generic drivers drive different device interfaces independently*". Claim 5 further limits the "*client application*" to being "*stored on the peripheral device obtains screen scraped data.* Claim 6 further limits the "*client application*" to a "*portable application.*" Claim 7 further indicates that "*the peripheral device is adapted to analyze an incoming signal from the processing device and if no audio is received, the incoming signal is discarded.*" The two proposed grounds present SNQs for at least these additional limitations.

The Patent Trial and Appeal Board found that similar grounds presented a reasonable likelihood of prevailing in *Yealink (USA) Network Technology Co., Ltd. et al v. Barco NV*, IPR2024-01436, Paper 13 at 6 and 30 (P.T.A.B April 8, 2025) (the '1436 IPR). Ex. 1093. This decision does not affect the SNQs in this request for two reasons. First, "[a]lthough the instant *inter partes* reviews have been instituted, a final written decision has not entered." *See*, *e.g.*, ctrl. no. 90/014,865, reexam order at 9 (dated November 11, 2021) . Second, claims 4-7 are not the subject of the '1436 IPR. Therefore, the arguments below present several SNQs. Ex. 1002, ¶¶ 88-90.

A. SNQ No. 1 – The Kaplan, Ahmed, and Deforche renders obvious claims 4-7 of the '002 patent under 35 U.S.C. § 103.

The new, non-cumulative, and not previously considered arguments with respect to Kaplan, Ahmed combined with Deforche establish an SNQ for claims 4-7 of the '002 patent. Neither Kaplan nor Ahmed was previously considered, and the combination presents an SNQ for at least the alleged reason for allowance of claim 1, from which claims 4-7 depends, as follows:

1. Claim 1: e) routing audio data from the processing device to the wireless transceiver via the connector of the peripheral device and the means for audio communication and[1]

Kaplan discloses "*routing audio data from processing device*" (*e.g.*, "computer 220") "*to the peripheral device*" (*e.g.*, "transmitter 120") "*via the connector*" (410) "*and the means for audio communication*" as explained for limitation 1(b). *See*, *e.g.*, Ex. 1027, ¶¶17 ("[T]he transmitter 120 includes a wireless transceiver 450 that is operable to transmit data from the computer to the receiver 110. For example, the data may include video and audio data for display on the display device."), 28, 45, 58 ("The method 600 also includes establishing a connection between a transmitter and a computer (612)."), FIGs. 4, 6; Ex. 1002, ¶¶92-93.

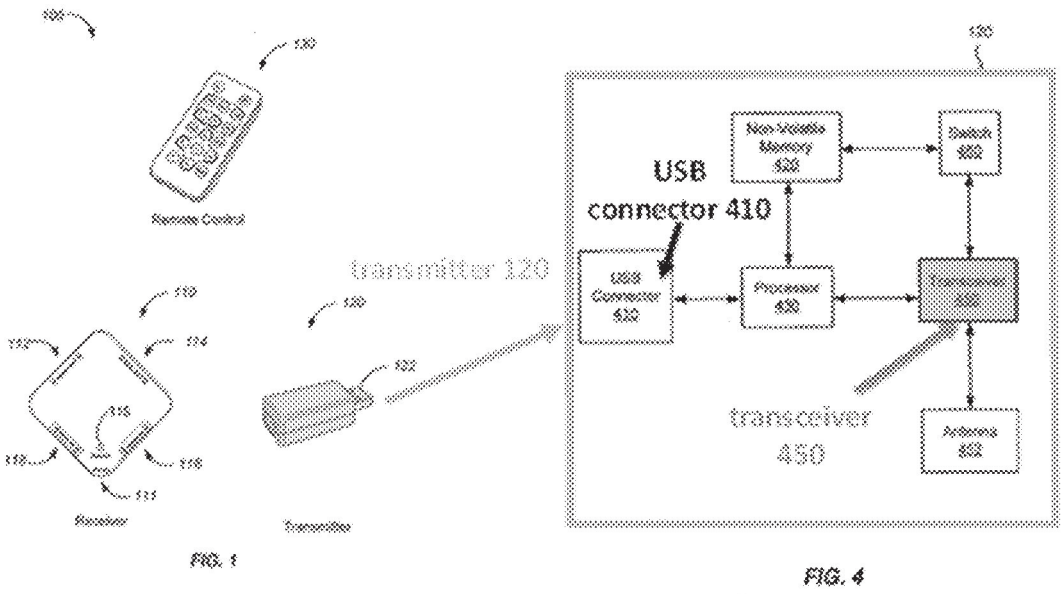


FIG. 4

Ex. 1027, FIGs. 1 and 4.

[1] The Board instituted trial in IPR2024-01436 for the '002 patent, but that IPR challenges different but similar and overlapping claims.

It was known at the time of the invention and a POSITA would have understood from Kaplan that all data (both video and audio) is routed from the computer 220 through the USB port and USB connector 450 to the transceiver 450 of transmitter 120 via a communications channel, over a wireless communication channel to paired transceiver 350 of receiver 110. *See*, *e.g.*, Ex. 1027, ¶¶5, 8, 17-18, 42-44, 57-61, FIG. 2-4, 6; Ex. 1002, ¶93.

2. Claim 4: *The method of claim 1 wherein Step b) comprises presenting the peripheral device to the processing device as a composite device and wherein pre-installed generic drivers drive different device interfaces independently.*

Deforche discloses presenting a wireless modem peripheral device (*e.g.*, the "*peripheral device*") to a computer's operating system as a composite device, such that the composite device driver(s) of the computer can communicate with the peripheral device without the need to install special device drivers. *See*, *e.g.*, Ex. 1030, ¶¶33 ("The USB device can thus expose its USB interface in different ways: (1) A composite device with USB HID and Mass Storage Unit (UMS) device with UMS and HID USB ID; (2) UMS device with 3G USB ID"), 34 ("The USBGo uses USB-HID as a lower layer to avoid having to install a specific driver for the modem."); Ex. 1023, ¶¶39, 45-47, 50; Ex. 1002, ¶94.

3. Claim 5: *The method of claim 1, wherein a client application is stored on the peripheral device obtains screen scraped data.*

Kaplan discloses "*a client application is stored on the peripheral device obtains screen scraped data*":

> As described more fully in relation to FIG. 4, the transmitter 120 may includes software that is configured to access video footage stored on a computer or on a web server accessible through the internet. In some embodiments, when the transmitter 120 is plugged into the computer for the first time, the software may be uploaded to and installed to the computer (automatically in some embodiments). Using the installed software, the user is able to access video footage or other media stored on the computer, transmit the media to the receiver 110, and view and/or listen to the media on the display device 210. In other embodiments, a user is able to download the appropriate software from the internet.

Ex. 1027, ¶22 (emphasis added). Kaplan clarifies that the video footage is "*screen scraped data*" because it is first rendered on the computer 220 before being transmitted to the display device 210:

> Since the computer typically has significant computing resources available, a specific embodiment utilizes the computer 220 to perform the vast majority of processing, merely relying on the receiver 110 to receive and display the received data. In this specific embodiment, the computer renders the information to be displayed as the user interface, the computer renders video footage at 30 frames per second (or another appropriate frame rate) that is broadcast to the television, and the like. Since a broadcast-ready video signal is transmitted to the receiver in this embodiment, the receiver only needs to pass this video signal through to the display device, greatly reducing the processing load on the receiver.

Id., ¶26 (emphasis added). The person of ordinary skill in the art would have understood that the "computer renders the information" includes displaying the information on both the computer and the display 210. Ex. 1002, ¶¶95-96. Ahmed further renders obvious that Kaplan's sharing of video data can include a "mirror driver is used for computer display duplication." Ex. 1014, 15:24-25; Ex. 1002, ¶96.

4. Claim 6: *The method of claim 5 wherein the client application is a portable application.*

Kaplan discloses that "*the client application is a portable application.*" Ex. 1027, ¶22. Kaplan's software is stored on the transmitter 120 and is therefore "*portable.*" Ex. 1002, ¶97. To the extent that Kaplan's software is not a "*portable application*," Deforche expressly uses the term "*portable application.*" Ex. 1030, ¶15 ("the wireless modem device stores at least one application and is provided for launching said application as a portable application, meaning that the application keeps its data (cache) in the memory of the wireless modem device and no traces are left on the computer device."), *see also* ¶¶18, 26-27, 30-31, 47; Ex. 1002, ¶98. Therefore, Kaplan either alone or in combination with Deforche renders obvious this limitation. Ex. 1002, ¶¶97-98.

5. Claim 7: ***The method of claim 1 wherein the peripheral device is adapted to analyze an incoming signal from the processing device and if no audio is received, the incoming signal is discarded.***

A POSITA would understand that if no audio is received in an incoming audio signal, it would be common practice to discard the audio signal, as the signal has no useful information. Ex. 1002, ¶¶99-100. This is evidenced, for example, by Leblanc, which describes analyzing audio signal and discarding the signal if no audio is present. Ex. 1066, ¶¶ 70 ("In a third 'conservative' mode, the VAD identifies low level (but audible) digital voice samples as inactive, but will be fairly conservative about discarding the digital voice samples. A low percentage of active speech will be clipped at the expense of slightly higher transmit bandwidth.), 71 ("In a fourth 'aggressive' mode, bandwidth is at a premium. The VAD is aggressive about discarding digital voice samples which are declared inactive."). A POSITA would be motivated to incorporate such commonplace signal processing strategies in the peripheral device of Kaplan using known techniques, such as shown by Leblanc and known by a POSITA, to achieve known advantages, such as improving system bandwidth. *Id.* Ex. 1002, ¶99.

6. Claim 8: ***The method of claim 7 wherein if audio is received, the peripheral device will initiate an additional TCP/IP socket connection to the base unit through the communications network.***

Ahmed discloses *if audio is received, the peripheral device will initiate an additional TCP/IP socket connection to the base unit through the communications network* (*e.g.*, "second socket 1203 for transmitting audio") Ex. 1014, 27:4-27, 32:24-31; *see also id.*, FIG. 12; Ex. 1002, ¶100. FIG. 5 of Ahmed illustrates a step 505 occurring after *audio is received*, and FIG. 7 illustrates step 701 that *will initiate an additional TCP/IP socket connection to the base unit through the communications network.* Ex. 1014, 19:10-15, 19:28-20:4.

These technical teachings of Kaplan, Ahmed in combination with Deforche were not cited, considered or discussed on the record by the examiner during prosecution of the '002 patent or in

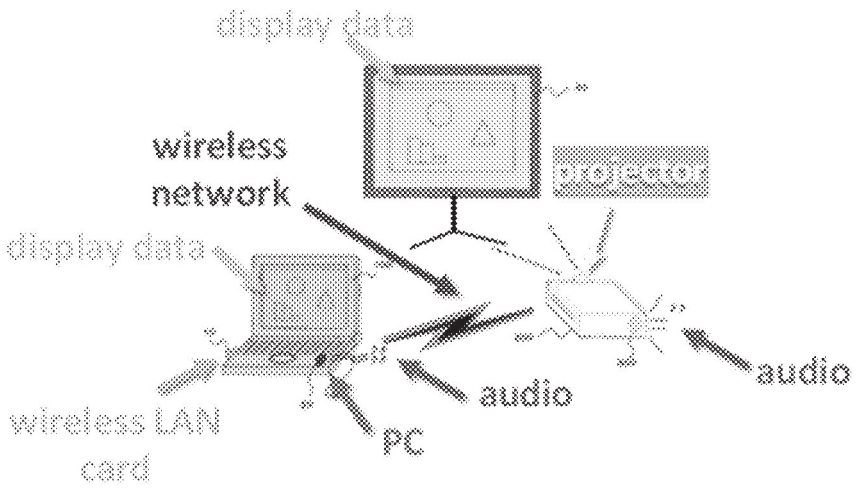
IPR2024-01436 with respect to claims 4-7, and an examiner would have considered the new technical teachings Kaplan, Ahmed in combination with Deforche important in deciding the patentability of claims 4-7. The new technical teachings of Kaplan, Ahmed in combination with Deforche are not cumulative of any technical teachings discussed or suggested during the original prosecution of the '002 patent. Therefore, Kaplan, Ahmed in combination with Deforche establishes an SNQ with respect to claims 4-7 of the '002 patent.

B. SNQ No. 2 – The combination of Maeda, Ahmed, and Deforche renders obvious claims 4-7 of the '002 patent under 35 U.S.C. § 103.

The new, non-cumulative, and not previously considered arguments with respect to Maeda, Ahmed, and Deforche establish an SNQ for claims 4-7 of the '002 patent. Ex. 1002, ¶102.

1. Claim 1: e) routing audio data from the processing device to the wireless transceiver via the connector of the peripheral device and the means for audio communication and

Maeda discloses "*routing audio data from the processing device to the wireless transceiver via the connector of the peripheral device and the means for audio communication.*" *See, e.g.*, Ex. 1031, ¶¶15, 17 ("A wireless LAN card 10 containing a wireless LAN chip is attached to PC 100, thereby transmitting image signals and audio signals to projector 200 via the wireless LAN"), 19 ("[A] network IF 108 which is an interface for communicating with projector 200 via a LAN or the like"), FIG. 1 (reproduced below); Ex. 1002, ¶¶103. As described above, the wireless LAN card/wireless modem device may be presented as a human interface device or other class of peripheral device, *e.g.*, as suggested by Deforche, such that the audio data is routed using audio communication provided by and set up using a pre-installed generic audio driver. *See, e.g.*, Ex. 1030, ¶¶32-39, 52; Ex. 1002, ¶103.



Ex. 1031, FIG. 1.

This connection may be achieved through the wireless LAN card's transceiver chip, or other transceiver that enables two-way communication as known in the art. A POSITA would have understood Maeda to disclose a transceiver and would have found it obvious to include such a conventional component. *See* Section X.B.2.b; Ex. 1002, ¶104.

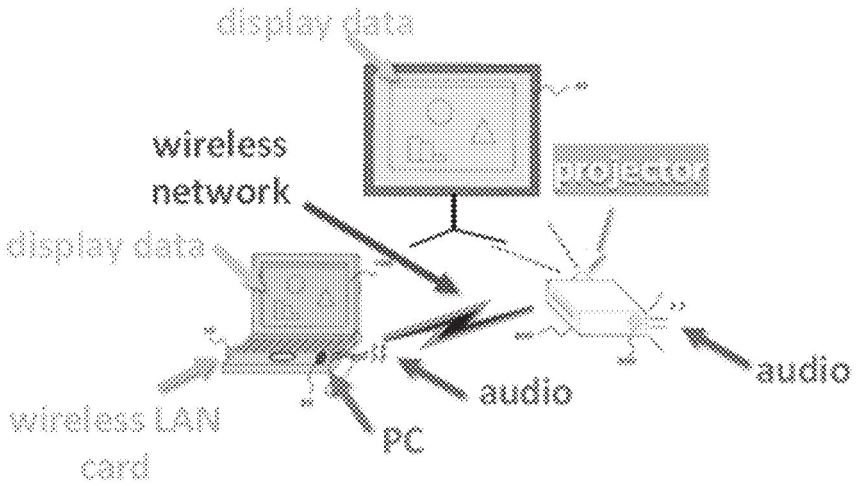
2. Claim 4: The method of claim 1 wherein Step b) comprises presenting the peripheral device to the processing device as a composite device and wherein pre-installed generic drivers drive different device interfaces independently.

Deforche discloses presenting a wireless modem peripheral device (*e.g.*, the "*peripheral device*") to a computer's operating system as a composite device, such that the pre-installed mass storage device driver of the computer can communicate with the peripheral device without the need to install special device drivers. *See*, *e.g.*, Ex. 1030, ¶¶33 ("The USB device can thus expose its USB interface in different ways: (1) A composite device with USB HID and Mass Storage Unit (UMS) device with UMS and HID USB ID; (2) UMS device with 3G USB ID"), 34 ("The USBGo uses USB-HID as a lower layer to avoid having to install a specific driver for the modem."); Ex. 1023, ¶¶39, 45-47, 50; Ex. 1002, ¶105. A POSITA would be motivated to present the peripheral device of Maeda as a composite device using the known technique of Deforche to achieve the

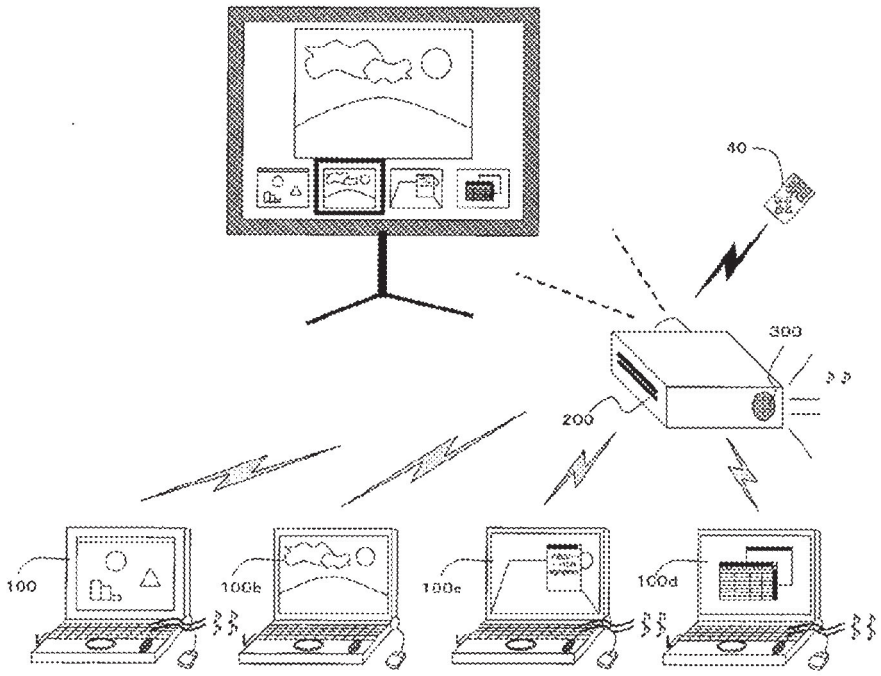
disclosed benefits of avoiding installation of a specific driver for the peripheral device. Ex. 1002, ¶105.

3. Claim 5: The method of claim 1, wherein a client application is stored on the peripheral device obtains screen scraped data.

Maeda discloses "*a client application … obtains screen scraped data*" because the same data from the PC is displayed on the projector, as illustrated by FIG. 1:



Ex. 1031, FIG. 1. The same is true for FIG. 11, but the data from four different displays are scraped and shared together:



Ex. 1031, FIG. 11. Ahmed further renders obvious that Maeda's sharing of video data can include a "mirror driver is used for computer display duplication." Ex. 1014, 15:24-25; Ex. 1002, ¶¶ 106-107.

Deforche renders obvious that the "*client application is stored on the peripheral device*." Ex. 1030, ¶15 ("the wireless modem device stores at least one application and is provided for launching said application as a portable application, meaning that the application keeps its data (cache) in the memory of the wireless modem device and no traces are left on the computer device."), *see also* ¶¶18, 26-27, 30-31, 47; Ex. 1002, ¶108. Therefore, Maeda either alone or in combination with Deforche renders obvious this limitation.

4. <u>Claim 6:</u> The method of claim 5 wherein the client application is a portable application.

To the extent that Maeda's software is not considered a "*portable application*," Deforche expressly uses the term "*portable application*." Ex. 1030, ¶15 ("the wireless modem device stores at least one application and is provided for launching said application as a portable application,

meaning that the application keeps its data (cache) in the memory of the wireless modem device and no traces are left on the computer device."), *see also* ¶¶18, 26-27, 30-31, 47; Ex. 1002, ¶109. Therefore, Maeda either alone or in combination with Deforche renders obvious this limitation.

5. Claim 7: The method of claim 1 wherein the peripheral device is adapted to analyze an incoming signal from the processing device and if no audio is received, the incoming signal is discarded.

A POSITA would understand that if no audio is received in an incoming audio signal, it would be common practice to discard the audio signal, as the signal has no useful information. Ex. 1002, ¶110. This is evidenced, for example, by Leblanc, which describes analyzing audio signal and discarding the signal if no audio is present. Ex. 1066, ¶¶ 70 ("In a third 'conservative' mode, the VAD identifies low level (but audible) digital voice samples as inactive, but will be fairly conservative about discarding the digital voice samples. A low percentage of active speech will be clipped at the expense of slightly higher transmit bandwidth.), 71 ("In a fourth 'aggressive' mode, bandwidth is at a premium. The VAD is aggressive about discarding digital voice samples which are declared inactive." A POSITA would be motivated to incorporate such commonplace signal processing strategies in the peripheral device of Maeda using known techniques, such as shown by Leblanc and known by a POSITA, to achieve known advantages, such as improving system bandwidth. *Id*; Ex. 1002, ¶110.

6. Claim 8: The method of claim 7 wherein if audio is received, the peripheral device will initiate an additional TCP/IP socket connection to the base unit through the communications network.

Ahmed discloses *if audio is received, the peripheral device will initiate an additional TCP/IP socket connection to the base unit through the communications network* (*e.g.*, "second socket 1203 for transmitting audio") Ex. 1014, 27:4-27, 32:24-31; *see also id.*, FIG. 12; Ex. 1002, ¶111. FIG. 5 of Ahmed illustrates a step 505 occurring after *audio is received*, and FIG. 7

illustrates step 701 that *will initiate an additional TCP/IP socket connection to the base unit through the communications network.* Ex. 1014, 19:10-15, 19:28-20:4.

These technical teachings of Maeda in combination with Ahmed and Deforche were not cited, considered or discussed on the record by the examiner during prosecution of the '002 patent or in IPR2024-01436 with respect to claims 4-7, and an examiner would have considered the new technical teachings of Maeda in combination with Ahamed and Deforche important in deciding the patentability of claims 4-7. The new technical teachings of Maeda in combination with Ahamed and Deforche are not cumulative of any technical teachings discussed or suggested during the original prosecution of the '002 patent. Therefore, Maeda in combination with Ahamed and Deforche establishes an SNQ with respect to claims 4-7 of the '002 patent. Ex. 1002, ¶112.

VII. MANNER OF APPLYING THE CLAIMS AS REQUIRED BY 37 C.F.R. § 1.51 (B)(2)

The level of skill in the art for the '832 patent would have had at least a master's degree in electrical engineering with at least five years of work experience in computer science and embedded systems, or a master's degree in computer science with at least five years of work experience in electrical and computer engineering and embedded systems. Ex. 1002, ¶¶36-37.

A. Ground 1 – The combination of Kaplan, Ahmed, Deforche, and the Knowledge of the Person of Ordinary Skill Renders Obvious claims 4-7.

Claims 4-7 depend directly or indirectly from 1, and thew present request addresses all limitations below.

1. Rationale to Combine

Kaplan, Ahmed, and Deforche are all related to wireless transmission of data/multimedia through a wireless network. *See* Ex. 1027, ¶21, FIG. 2; Ex. 1014, 7:6-25; Ex. 1030, abstract; Ex. 1002, ¶113. Kaplan, like the '002 patent, discloses a system and method for remotely displaying video content with audio via a physically attached peripheral wireless device. Ex. 1027, ¶¶6-8, 21;

See Section IX.A; Ex. 1002, ¶113. Kaplan, however, does not disclose driver-level specifics of how it would achieve the disclosed transmission of audio/visual content between a computer and its USB wireless transmitter.

Ahmed discloses using two separate drivers—a "mirror display driver" and a "audio driver"—for accomplishing audio/visual data transmission using an integrated transceiver 203. Ex. 1014, 18:26-19:21, *see also* 17:13-16; *See* Section IX.C; Ex. 1002, ¶114. Ahmed teaches that using two separate drivers is "preferred" to allow syncing of the audio/video data streams. Ex. 1014, 18:26-19:21, *see also* 27:1-27; Ex. 1002, ¶114. It would have been a simple application of a known technique to apply Ahmed's driver-level implementation of separate drivers to set up communication between Kaplan's host computer and USB transmitter to achieve Kaplan's transmission of audio/video data. Ex. 1002, ¶114. The modification would achieve the predictable result of Kaplan's audio/visual transmission using two separate data streams. Ex. 1002, ¶114.

Deforche teaches similar wireless transmission of data. Ex. 1030, abstract, ¶¶9-11; *See* Section IX.D; Ex. 1002, ¶115. Like the '002 patent, Deforche discloses a method for connecting a host computer to a wireless communication network including "setting up, by means of a pre-installed generic driver of an operating system on the computer device, a modem/host communication interface [] for communication between the wireless modem device and the computer device." Ex. 1030, abstract, ¶¶9-11; Ex. 1002, ¶115. Therefore, while neither Kaplan nor Ahmed specifically refer to drivers as "pre-installed generic drivers," Deforche teaches that using such drivers "has the advantage that the need for a specific driver for the communication between the wireless modem device and the computer device can be avoided." Ex. 1030, abstract, ¶¶9; Ex. 1002, ¶115. It would thus have been obvious to modify Ahmed to use Deforche's "*pre-installed generic audio driver*" because it is a known technique to improve a similar device in the same

way. Ex. 1002, ¶115. The combination of Kaplan, Ahmed, and Deforche would yield the predictable result a system for wirelessly transmitting audio/video data streams using two separate, pre-installed generic drivers to set up the communication between a host computer and peripheral wireless device. Ex. 1002, ¶115.

2. Claim 1

a) *A method for connecting a processing device to a communications network, the processing device having a memory, a display and an operating system with pre-installed generic drivers providing a communications protocol for communication between the processing device and a class of peripheral devices, the method comprising*

To the extent limiting, Kaplan discloses "*a method for connecting a processing device*" (*e.g.*, "computer 220") "*to a communications network*" via a transmitter 120. *See*, *e.g.*, Ex. 1027, ¶¶5-9, 16-18, 23, 31-32, 57-61, FIGs. 2 (reproduced below) and 6; Ex. 1002, ¶¶117-118. According to Kaplan, setting up and operating 802.11 wireless networks "is a challenging endeavor for many users." Ex 1027, ¶3; Ex. 1002, ¶118. This is at least in part due to the need for the user to "set the Service Set Identifier *S*SID), password, and/or parameters that enable the various networks elements to communicate." Ex. 1027, ¶18; Ex. 1002, ¶118. Kaplan's system, therefore, provides a transmitter and receiver that have such settings pre-set. (*Id.*; Ex. 1002, ¶118. Kaplan's system, therefore, provides a user with a fully functioning communication system when the user first installs the equipment without the need for configuration details. (*Id.*; Ex. 1002, ¶118.

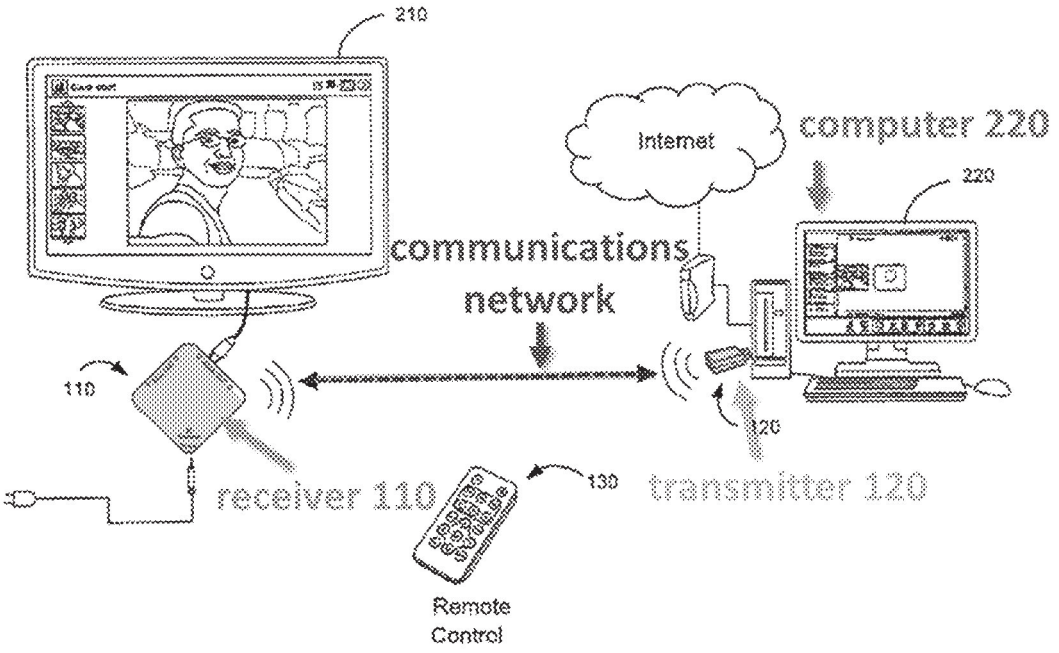


FIG. 2

Ex. 1027, FIG. 2.

Kaplan also discloses computer 220 including "*a memory*" ("non-volatile memory 420"), "*a display*" (illustrated in Figure 2 above) and "*an operating system.*" *S*uch as Windows®). *See*, *e.g.*, Ex. 1027, ¶¶47-49, 59, FIG. 2; Ex. 1002, ¶119. It was common knowledge, and a POSITA at the time of invention, would have understood that an operating systems of a computing device *S*uch as Windows®) would include *pre-installed generic drivers* that provide a communications protocol for communication between the computer and a class of peripheral devices *S*uch as peripheral mass storage devices), as was well known in the art. *See*, *e.g.*, Ex. 1027, ¶¶45 Explaining that USB is a ubiquitous set of communication standards and protocols), 50-52; *see also* Ex. 1021, ¶¶3-4; Ex. 1026, ¶1 ("Universal Serial Bus (USB) standard provides communication protocols for interfacing between a host and its peripheral devices. For example, a personal computer implementing the Microsoft Windows® operating system may use the USB standard for communicating with a key board, a compact disc (CD) player, or a USB flash drive."); Ex. 1030,

¶10; Ex. 1002, ¶¶119-120. Notably, the '002 patent concedes that "such a driver is standard for the operating system and can drive a standard class of peripheral devices coupled to or connected to the processing devices." Ex. 1001, 14:35-38; *see also* 5:58-60; Ex. 1002, ¶119-120.

b) ***a) coupling an external peripheral device physically to a port of the processing device, wherein the peripheral device comprises a wireless transceiver and a connector, said connector configured to couple to the port of the processing device***

Kaplan discloses *coupling an external peripheral device* (*e.g.*, a "transmitter 120") "*physically to a port of the processing device*" (*e.g.*, USB port of computer 220). *See*, *e.g.*, Ex. 1027, ¶¶21, 45, FIG. 2 (reproduced below); Ex. 1002, ¶¶121. Kaplan also discloses that the peripheral device" (*e.g.*, the "transmitter 120") *comprises a wireless transceiver* (450) *and a connector* (122 and USB connector 450) *configured to couple to the port of the processing device*. *See*, *e.g.*, Ex. 1027, ¶¶19, 16-17, 45, FIGs. 1 and 4 (reproduced below); Ex. 1002, ¶¶122.

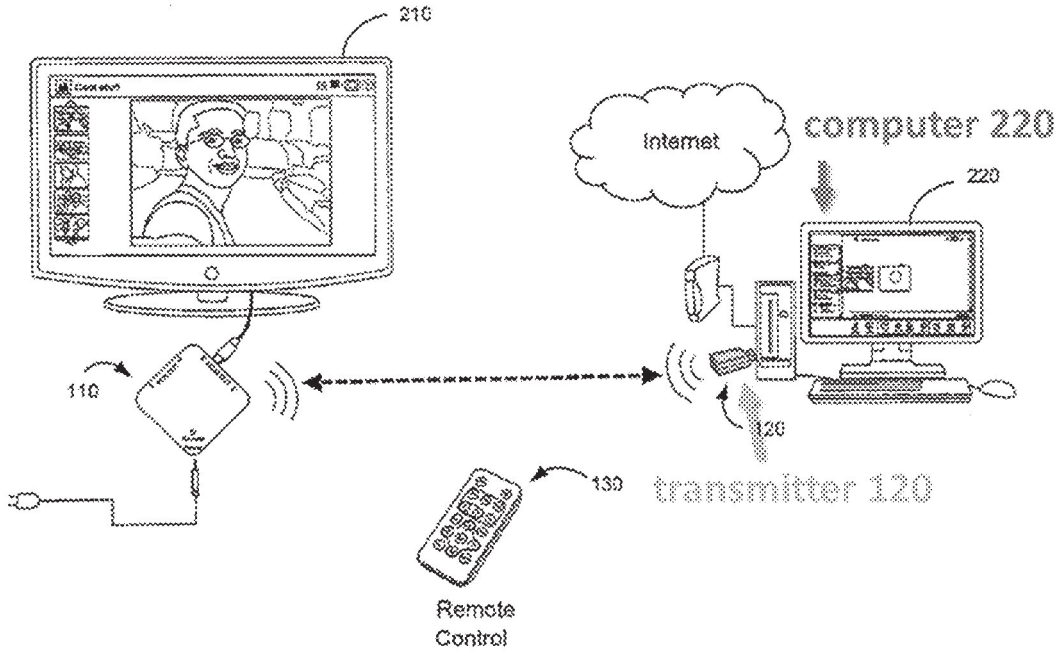


FIG. 2

Ex. 1027, FIG. 2.

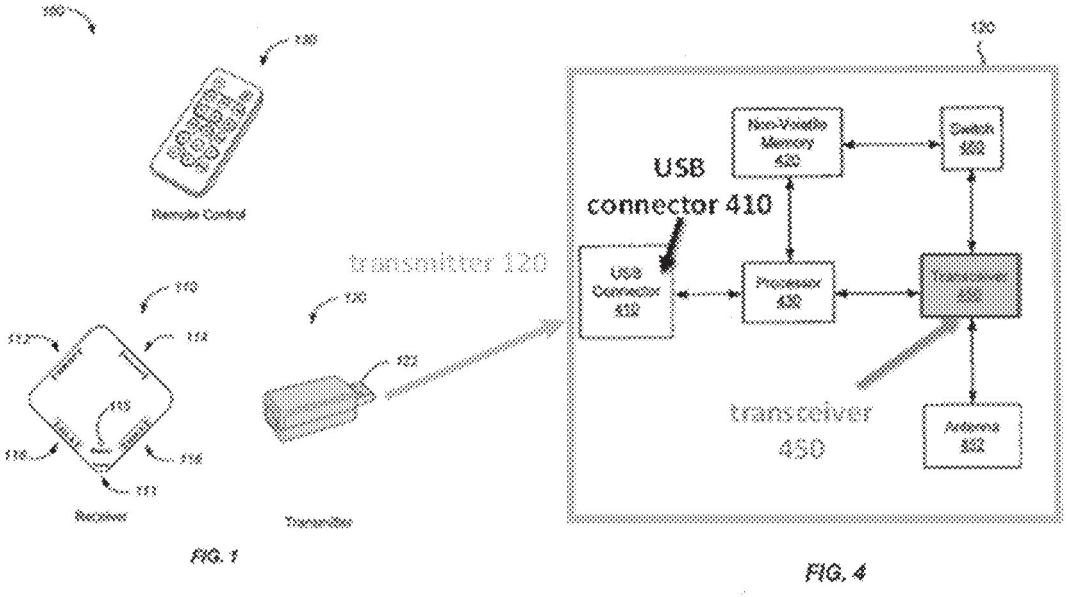


FIG. 1 FIG. 4

Ex. 1027, FIGs. 1 and 4.

c) ***b) setting up, by means of a first pre-installed generic audio driver of the operating system, a means for audio communication between the peripheral device and the processing device and***

Kaplan discloses "*setting up … a means for audio communication between the peripheral device and the processing device*" (to transmit audio data, *e.g.*, "video footage may be transmitted from the computer 220 through the transmitter 120"). Ex. 1027, ¶28, FIG. 6; *see also id.*, ¶¶8, 17 ("[D]ata may include video **and audio data** for display on the display device."), 22, 26, 47-52, 58; Ex. 1002, ¶¶123. This audio connection extends through USB interface 410 based on the particular USB driver of computer 220 that recognizes the transmitter, thereby providing *a means for audio communication*. Ex. 1002, ¶123-124.

Kaplan discloses using "the USB standard" to establish an initial connection using standard drivers and transmit audio and video data. Ex. 1027, ¶¶45-52, *see also* ¶¶21, 40, 58-60; Ex. 1002, ¶¶123-127. As Kaplan puts it, "the user just plugs-in the devices and [they] operate as intended." Ex. 1027, ¶21. Kaplan uses the plug-and-play feature to install software to so that the transmitter

120 may begin to operate as a "wireless transmitter" to send, for example, "video footage." (*Id.*, ¶¶50-51; Ex. 1002, ¶¶123-127. However, Kaplan does not specifically disclose using a "*first pre-installed generic audio driver.*"

Ahmed discloses sending the audio portion of a audio stream using "*a first ... audio driver*":

> a virtual audio driver, referred to as a virtual audio cable (VAC), is installed as a normal audio driver that can be selected as a default playback and/or recording device. A feature of VAC is that, by default, it routes all the audio going to its audio output pin to its input pin

Ex. 1014, 18:26-19:15 (emphasis added).

Ahmed discloses another embodiment where "audio is captured using Microsoft Windows Multimedia API," (*id.*, 17:10-12), which a POSITA would have understood to be implemented by an audio driver. Ex. 1002, ¶¶128-136. "A Microsoft Windows Multimedia Library provides an interface to the applications to play audio data on an audio device using waveOut calls." (*Id.*, 17:13-16 (emphasis added)); *see also* Ex. 1002, ¶129. Thus, a POSITA would have understood Ahmed discloses a setting up and interface and thus communication by means of an audio driver as an example of "*a first pre-installed generic audio driver of the operating system ... for audio communication.*" Ex. 1014, 27:4-27; *see also id.*, FIG. 12; Ex. 1002, ¶129.

To the extent PO contends that Ahmed does not disclose that its audio driver is a "*pre-installed generic audio driver of the operating system,*" Deforche discloses using "*a pre-installed generic audio driver*" to wirelessly exchange any IP data. Ex. 1030, abstract, ¶¶9-11; Ex. 1002, ¶131. The '002 patent concedes that this limitation was "well-known" in the art Ex. 1001, 3:65-4:9 (citing US 2011/0115689); *see* Ex. 1022, ¶39 ("[T]he OS searches its own files for the driver software.")); Ex. 1002, ¶132-136. It would have been obvious to modify Kaplan to use "*a pre-installed generic audio driver*" because "[t]his has the advantage that the need for a specific driver

for the communication between the wireless modem device and the computer device can be avoided." Ex. 1030, ¶9; Ex. 1002, ¶132-133; *See additionally* Section X.A.1. Therefore, Kaplan in combination with Ahmed and Deforche discloses this claim limitation. *See* Ex. 1002, ¶132-133.

Furthermore, in the related IPR (IPR2024-01436), the patent Owner's Expert, Dr. Brogioli, admitted that Deforche teaches this limitation. Ex. 1072, 72:13-73:13; *see also* Ex. 1030, abstract ("setting up, by means of a pre-installed generic driver of the operating system on the computer device, a modem/host communication interface"). Therefore, the dispute is whether it would have been obvious to use Deforche's standard pre-installed USB drivers, which are found in every major operating system, that allow "*audio communication between the peripheral device and the processing device*" in Kaplan's system. Ex. 1085 (describing the standard USB Audio Class driver included in the Windows OS). Such a combination would have been obvious and likely the first choice of the POSITA because the software is so common and ubiquitous. Ex. 1002, ¶132.

In the IPR, the Patent Owner's argument was simply that neither Kaplan nor Ahmed teach "*a pre-installed generic driver*." Ex. 1094, 34-38. This entire argument ignores that, to the extent that Kaplan's and Ahmed's drivers are not "*a pre-installed generic driver*," it would have been a simple substitution to use such a driver as taught by Deforche. Swapping Kaplan's and Ahmed's drivers for Deforche's would have been a simple substitution using known methods to achieve the predictable result of communicating between a processing device and a peripheral device. Ex. 1002, ¶; *see also In re O'Farrell*, 853 F.2d 894, 903, 7 USPQ2d 1673, 1681 (Fed. Cir. 1988) (citations omitted) (The claimed method would have been obvious because one reference contained a detailed enabling methodology, a suggestion to modify the prior art to produce the claimed invention, and evidence suggesting the modification would be successful). Ex. 1002, ¶134-136

d) *c) setting up … by means of a second pre-installed generic driver of the operating system, a means for data communication between the peripheral device and the processing device*

Similar to the analysis in the previous section, Kaplan discloses "*setting up … a means for data communication between the peripheral device and the processing device*" (to transmit data, *e.g.*, "video footage may be transmitted from the computer 220 through the transmitter 120") between the transmitter 120 and computer 220. Ex. 1027, ¶31, FIG. 6; *see also id.*, ¶¶8, 17 ("[D]ata may include **video** and audio **data** for display on the display device."), 22, 31, 47-52, 58; Ex. 1002, ¶¶137. However, Kaplan does not explain whether it uses "*a second pre-installed generic driver of the operating system*" for non-audio data.

Ahmed discloses using "*a second … driver*" as a "*a means for data communication between the peripheral device and the processing device*" (*e.g.*, "while the various media streams may be multiplexed and transmitted in a single stream, it is preferred to transmit the media data streams separately in a synchronized manner.") Ex. 1014, 27:1-4; Ex. 1002, ¶138. Ahmed also sets up "*data communication*" using "*a second preinstalled generic driver of the operating system*" by using a "mirror display driver" and a "first socket 1202 for transmitting video." *See, e.g.*, Ex. 1014, Abstract and 27:4-27, *see also id.*, FIG. 12, 8:7-22, 9:12-13, 9:24-31, 10:9-13, 16:7-14, 4:3-5; Ex. 1002, ¶138. Therefore, Ahmed discloses the use of a video driver for capturing video data and, thus, in combination with the discussion above for audio driver, using separate drivers for audio and video. Ex. 1014, 3:26-28; Ex. 1002, ¶138.

As described with respect to limitation 1(b), Deforche additionally suggests that Ahmed's drivers can be "*second pre-installed generic driver[s] of the operating system.*" *See* Section X.A.2(c) (citing Ex. 1030, abstract, ¶¶9-11; Ex. 1002, ¶¶139-143. Ahmed further suggests the use of two such drivers—one audio ("normal audio driver") and one for video ("mirror display

driver")—in setting up communication between the wireless device and the computer. Ex. 1014, abstract, 18:26-19:15; Ex. 1002, ¶¶85, 142.

e) *d) using the peripheral device to connect the processing device to a communications network via the wireless transceiver*

Kaplan discloses *using the peripheral device* (*e.g.*, "transmitter 120") *to connect the processing device to a communications network via the wireless transceiver*. *See*, *e.g.*, Ex. 1027, ¶¶6, 9, 18, 23 ("It should be noted that various methods for identifying the receiver 110 as a network element may be used."), 25, 31, 45, FIG. 2 (reproduced below); Ex. 1002, ¶144.

Kaplan's transmitter 120 is pre-paired with the receiver 110 to form the communications network to which the computer 220 is connected.

> [T]he receiver 110 and the transmitter 120 are pre-paired during the manufacturing process. Thus, when a user first sets up the communications systems, there is no need for the user to pair or define settings associated with the communication that occurs between the receiver 110 and the transmitter 120. This embodiment contrasts with conventional wireless networking equipment, for which a user typically needs to manually pair the various devices prior to use. As an example, in a conventional 802.11-based network, a user needs to set the Service Set Identifier *S*SID), password, and/or other parameters that enable the various network elements to communicate. In the embodiments described herein, such settings are pre-set at the time of manufacturing as part of the manufacturing process or at other time prior to delivery to the user. Thus, when the user first installs the equipment, the parameters necessary for two-way communications between the receiver 110 and the transmitter 120 are already set. As a result, the user is provided with a fully functioning communications system straight "out-of-the-box."

Ex. 1027, ¶¶18; *see also* 53, 54; *see also* Sections V.A and VII.A.2.a; Ex. 1002, ¶145.

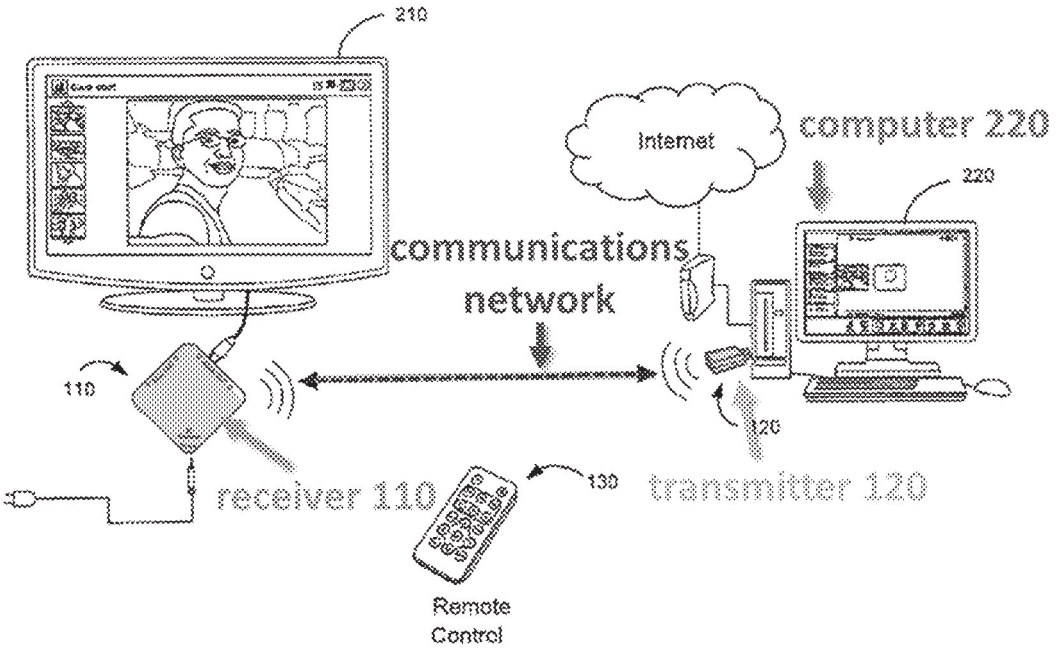


FIG. 2

Ex. 1027, FIG. 2.

Note that Kaplan discloses that its system works "without … a wireless network" already set up. *Id.*, ¶23. Kaplan's system, then simplifies the setup so that the receiver and transmitter "provide a user with the ability to conveniently view video footage stored on a computer or a web server on a television without having to perform any wireless network setup procedures." *Id.*, ¶¶9, 21, 40, 54-55; Ex. 1002, ¶146. Therefore, Kaplan's system uses a "*communications network*" but avoids the user having to explicitly connect the receiver and transmitter to a pre-existing wireless network themselves. Ex. 1002, ¶146.

f) *e) routing audio data from the processing device to the wireless transceiver via the connector of the peripheral device and the means for audio communication and*

Kaplan discloses "*routing audio data from processing device*" (*e.g.*, "computer 220") "*to the peripheral device*" (*e.g.*, "transmitter 120") "*via the connector*" (410) "*and the means for audio communication*" as explained for limitation 1(b). *See, e.g.*, Ex. 1027, ¶¶17 ("[T]he transmitter 120

includes a wireless transceiver 450 that is operable to transmit data from the computer to the receiver 110. For example, the data may include video and audio data for display on the display device."), 28, 45, 58 ("The method 600 also includes establishing a connection between a transmitter and a computer (612)."), FIGs. 4, 6; Ex. 1002, ¶¶147-148.

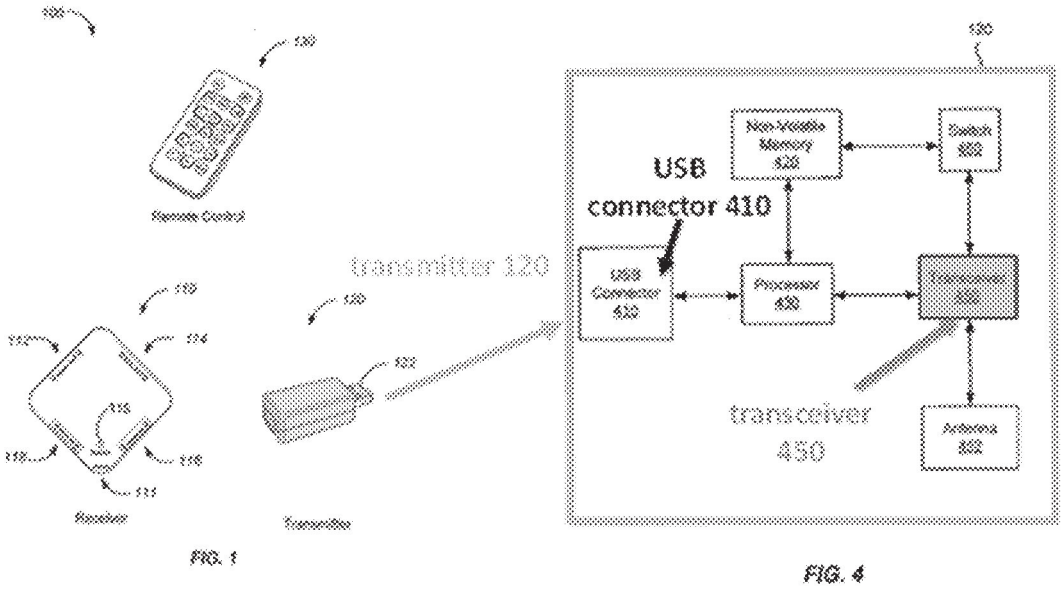


FIG. 4

Ex. 1027, FIGs. 1 and 4.

It was known at the time of the invention and a POSITA would have understood from Kaplan that all data (both video and audio) is routed from the computer 220 through the USB port and USB connector 450 to the transceiver 450 of transmitter 120 via a communications channel, over a wireless communication channel to paired transceiver 350 of receiver 110. *See*, *e.g.*, Ex. 1027, ¶¶5, 8, 17-18, 42-44, 57-61, FIG. 2-4, 6; Ex. 1002, ¶148.

g) *f) routing the audio data from the wireless transceiver of the peripheral device to a base node over the communications network*

Kaplan discloses "*routing the audio data from the wireless transceiver of the peripheral device to a base station*" (*e.g.*, "receiver 110") "*over the communications network.*" *See*, *e.g.*, Ex.

1027, Abstract, ¶¶2-6, 16-17 ("[T]he transmitter 120 includes a wireless transceiver 450 that is operable to transmit data from the computer to the receiver 110. For example, the data may include video and audio data for display on the display device."), 18, 28 ("[V]ideo footage may be transmitted from the computer 220 through the transmitter 120 to the receiver 110 and then displayed on the display device 210), 44, FIG. 2 (reproduced below); Ex. 1002, ¶¶149.

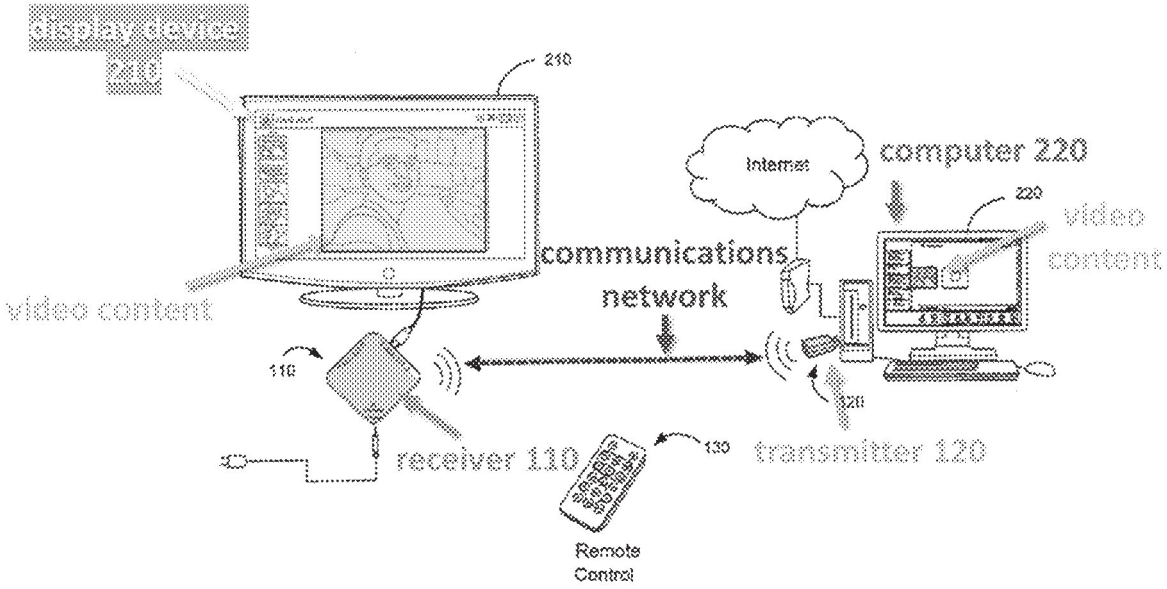


FIG. 2

Ex. 1027, FIG. 2.

Again, it was known in the art at the time of the invention and a POSITA would have understood from Kaplan that all data (both video and audio) is routed from the computer 220 through the USB port and USB connector 450 to the transceiver 450 of transmitter 120, over a wireless communication channel to paired transceiver 350 of receiver 110, and finally out the receiver 110's video and audio outputs to a display/television. *See, e.g.*, Ex. 1027, ¶¶5, 8, 17-18, 42-44, 57-61, FIG. 2-4, 6; Ex. 1002, ¶150.

h) ***g) wherein the first pre-installed generic audio driver is used for transferring the audio data between the processing device and the peripheral device.***

See limitation 1(b), supra. *S*ection VII.A.2.c; Ex. 1002, ¶¶150.

3. Claim 4

a) ***The method of claim 1 wherein Step b) comprises presenting the peripheral device to the processing device as a composite device and wherein pre-installed generic drivers drive different device interfaces independently.***

Deforche discloses presenting a wireless modem peripheral device (*e.g.*, the "*peripheral device*") to a computer's operating system as a composite device, such that the pre-installed mass storage device driver of the computer can communicate with the peripheral device without the need to install special device drivers. *See*, *e.g.*, Ex. 1030, ¶¶33 ("The USB device can thus expose its USB interface in different ways: (1) A composite device with USB HID and Mass Storage Unit (UMS) device with UMS and HID USB ID; (2) UMS device with 3G USB ID"), 34 ("The USBGo uses USB-HID as a lower layer to avoid having to install a specific driver for the modem."); Ex. 1023, ¶¶39, 45-47, 50; Ex. 1002, ¶152. A POSITA would be motivated to present the peripheral device of Kaplan as a composite device using the known technique of Deforche to achieve the disclosed benefits of avoiding installation of a specific driver for the peripheral device.

4. Claim 5

a) ***The method of claim 1, wherein a client application is stored on the peripheral device obtains screen scraped data.***

Kaplan discloses "*a client application is stored on the peripheral device obtains screen scraped data*":

> As described more fully in relation to FIG. 4, the transmitter 120 may includes software that is configured to access video footage stored on a computer or on a web server accessible through the internet. In some embodiments, when the transmitter 120 is plugged into the computer for the first time, the software may be uploaded to and installed to the computer (automatically in some

> embodiments). Using the installed software, the user is able to access video footage or other media stored on the computer, transmit the media to the receiver 110, and view and/or listen to the media on the display device 210. In other embodiments, a user is able to download the appropriate software from the internet.

Ex. 1027, ¶22 (emphasis added). Ex.1002, ¶153. Kaplan clarifies that the video footage is "*screen scraped data*" because it is first rendered on the computer 220 before being transmitted to the display device 210:

> Since the computer typically has significant computing resources available, a specific embodiment utilizes the computer 220 to perform the vast majority of processing, merely relying on the receiver 110 to receive and display the received data. In this specific embodiment, the computer renders the information to be displayed as the user interface, the computer renders video footage at 30 frames per second (or another appropriate frame rate) that is broadcast to the television, and the like. Since a broadcast-ready video signal is transmitted to the receiver in this embodiment, the receiver only needs to pass this video signal through to the display device, greatly reducing the processing load on the receiver.

Id., ¶26 (emphasis added). The person of ordinary skill in the art would have understood that the "computer renders the information" includes displaying the information on both the computer and the display 210. Ex. 1002, ¶153. Ahmed further renders obvious that Kaplan's sharing of video data can include a "mirror driver is used for computer display duplication." Ex. 1014, 15:24-25; Ex. 1002, ¶153.

5. Claim 6

a) *The method of claim 5 wherein the client application is a portable application.*

Kaplan discloses that "*the client application is a portable application.*" Ex. 1027, ¶22; Ex. 1002, ¶¶154-161. Kaplan's software is stored on the transmitter 120 and is therefore "*portable*." Ex. 1002, ¶154. To the extent that Kaplan's software is not a "*portable application*," Deforche expressly uses the term "*portable application.*" Ex. 1030, ¶15 ("the wireless modem device stores at least one application and is provided for launching said application as a portable

application, meaning that the application keeps its data (cache) in the memory of the wireless modem device and no traces are left on the computer device."), *see also* ¶¶18, 26-27, 30-31, 47; Ex. 1002, ¶154. Therefore, Kaplan either alone or in combination with Deforche renders obvious this limitation.

Although claim 6 is not challenged in the related IPR (IPR2024-01436), the concepts of a "portable application" and "zero-footprint" operation have been addressed in this IPR. In this IPR, the Patent Owner argued that it would not be obvious to combine Kaplan and Ahmed with Deforche's zero-footprint solution. Ex. 1094, 27. However, there is no reason why it would not have been obvious to use Deforche's ubiquitous "*pre-installed generic drivers*" to implement a solution based on the combination of Kaplan, Ahmed, and Deforche. *See* Ex. 1002, ¶155-155-161.

Deforche teaches a preference to use a zero-footprint application that involves the "use of existing USB class drivers." Ex. 1030, ¶¶29-43, 50-51, and FIG. 4a. Deforche also teaches that the zero-footprint application can be any type of application. *Id.*, ¶¶14; *see also* Ex. 1072, 6:11-24 (Dr. Brogioli testifying that he did not analyze what "Ono may or may not look like for a zero-footprint software solution"); Ex. 1002, ¶156. There is nothing prohibiting implementing Kaplan's application as a zero-footprint application. The only evidence the Patent Owner identified is Kaplan's and Ahmed's use of the word "install," which according to the Patent Owner, means that installation is "required." Ex. 1094, 27-29; Ex. 1002, ¶156. However, Dr. Brogioli testified that installing some software would still meet the claim limitations. Ex. 1070, 20:11-24:23 (testifying that Barco's software is zero-footprint despite driver installation); *see also* Ex. 1002, ¶¶156-161.

Overall, the Patent Owner's arguments presented in the IPR fail because they require use of an improper and "rigid formula," apparently requiring all limitations to be in a single reference, which contravenes common sense application of Deforche's zero-footprint advantages that would have been obvious to apply to Kaplan's system ready for improvement. *Leapfrog Enterprises, Inc. v. Fisher-Price, Inc.*, 485 F. 3d 1157, 1161 (citing *KSR*, 27 S. Ct. at 1739).

6. Claim 7

a) *The method of claim 1 wherein the peripheral device is adapted to analyze an incoming signal from the processing device and if no audio is received, the incoming signal is discarded.*

A POSITA would understand that if no audio is received in an incoming audio signal, it would be common practice to discard the audio signal, as the signal has no useful information. Ex. 1002, ¶162. This is evidenced, for example, by Leblanc, which describes analyzing audio signal and discarding the signal if no audio is present. Ex. 1066, ¶¶ 70 ("In a third 'conservative' mode, the VAD identifies low level (but audible) digital voice samples as inactive, but will be fairly conservative about discarding the digital voice samples. A low percentage of active speech will be clipped at the expense of slightly higher transmit bandwidth.), 71 ("In a fourth 'aggressive' mode, bandwidth is at a premium. The VAD is aggressive about discarding digital voice samples which are declared inactive." A POSITA would be motivated to incorporate such commonplace signal processing strategies in the peripheral device of Kaplan using known techniques, such as shown by Leblanc and known by a POSITA, to achieve known advantages, such as improving system bandwidth. *Id*; Ex. 1002, ¶162.

7. Claim 8

b) The method of claim 7 wherein if audio is received, the peripheral device will initiate an additional TCP/IP socket connection to the base unit through the communications network.

Ahmed discloses *if audio is received, the peripheral device will initiate an additional TCP/IP socket connection to the base unit through the communications network* (*e.g.*, "second socket 1203 for transmitting audio") Ex. 1014, 27:4-27, 32:24-31; *see also id.*, FIG. 12; Ex. 1002, ¶163. FIG. 5 of Ahmed illustrates a step 505 occurring after *audio is received*, and FIG. 7 illustrates step 701 that *will initiate an additional TCP/IP socket connection to the base unit through the communications network.* Ex. 1014, 19:10-15, 19:28-20:4; Ex. 1002, ¶163.

B. Ground 2 – Maeda, Ahmed, Deforche, and the Knowledge of the Person of Ordinary Skill Renders Obvious Claims 6.

The combination of Maeda, Ahmed, and Deforche renders obvious claims 1 and 6. *See* Ex. 1002, ¶¶129-207.

1. Rationale to Combine

Maeda, Ahmed, and Deforche are all related to connecting wireless peripherals to PCs. *See* Ex. 1031, ¶17, FIG. 2; Ex. 1014, 7:6-25; Ex. 1030, abstract; Ex. 1002, ¶¶164-166. Maeda, like the '002 patent, teaches a system and method for remotely displaying video content with audio. Ex. 1031, ¶17; Ex. 1002, ¶164. However, it does not disclose driver-level specifics of how it would achieve the disclosed transmission of audio/visual content.

Ahmed discloses using two separate drivers for accomplishing audio/visual data transmission using an integrated transceiver 203, a "mirror display driver," and a "normal audio driver." Ex. 1014, 18:26-19:21, *see also* 17:13-16; Ex. 1002, ¶165. Ahmed teaches that using two separate drivers is "preferred" to allow syncing of the audio/video data streams. Ex. 1014, 18:26-19:21, *see also* 27:1-27; Ex. 1002, ¶165. It would have been a simple substitution to include

Ahmed's driver-level implementation to achieve Maeda's remote transmission of audio/video data streams ready for improvement. The modification would achieve the predictable result of Maeda's audio/visual transmission using two separate drivers. Ex. 1002, ¶165.

Deforche teaches similar wireless transmission of data. Ex. 1030, abstract, ¶¶9-11; Ex. 1002, ¶166. Deforche discloses using "a pre-installed generic driver of an operating system" to wirelessly exchange any IP data. Ex. 1030, abstract; Ex. 1002, ¶166. Therefore, while neither Maeda nor Ahmed discloses whether the drivers they are using are pre-installed generic drivers, Deforche teaches that using such drivers "has the advantage that the need for a specific driver for the communication between the wireless modem device and the computer device can be avoided." Ex. 1030, ¶9; Ex. 1002, ¶166. It would thus have been obvious to modify Ahmed to use Deforche's "*pre-installed generic audio driver*" because it is a known technique to improve a similar device in the same way. Ex. 1002, ¶166. The combination of Maeda, Ahmed, and Deforche would yield the predictable result of a system for wirelessly transmitting audio/video data streams using two pre-installed generic drivers. Ex. 1002, ¶166.

2. Claim 1

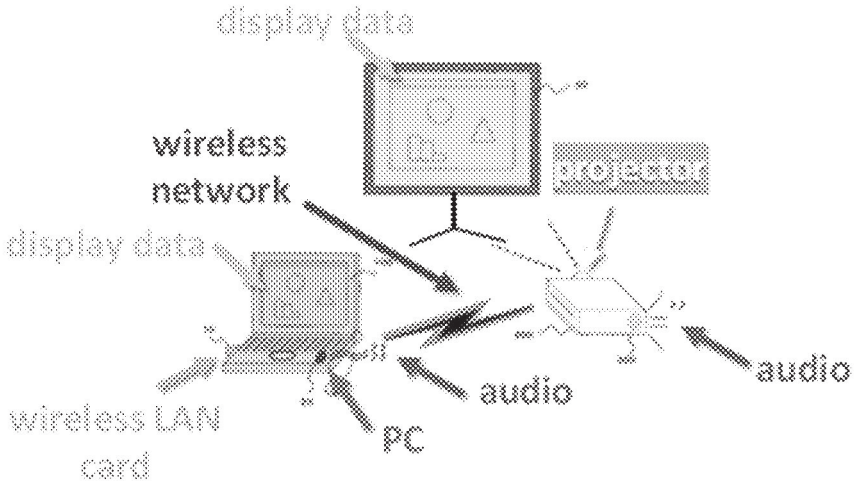
a) ***A method for connecting a processing device to a communications network, the processing device having a memory, a display and an operating system with pre-installed generic drivers providing a communications protocol for communication between the processing device and a class of peripheral devices, the method comprising:***

Maeda discloses "a method for connecting a processing device" (*e.g.*, a "PC 100") "to a communications network." *S*ee, *e.g.*, Ex. 1031, ¶¶15 ("[A] PC is used as an image generation device that generates images and audio, and the images and audio are transmitted to a projector, which is an image projection device, using a wireless LAN."),

> This transmission system is a system in which a screen displayed on the display of PC 100 is transmitted from PC 100 to projector 200 and the screen

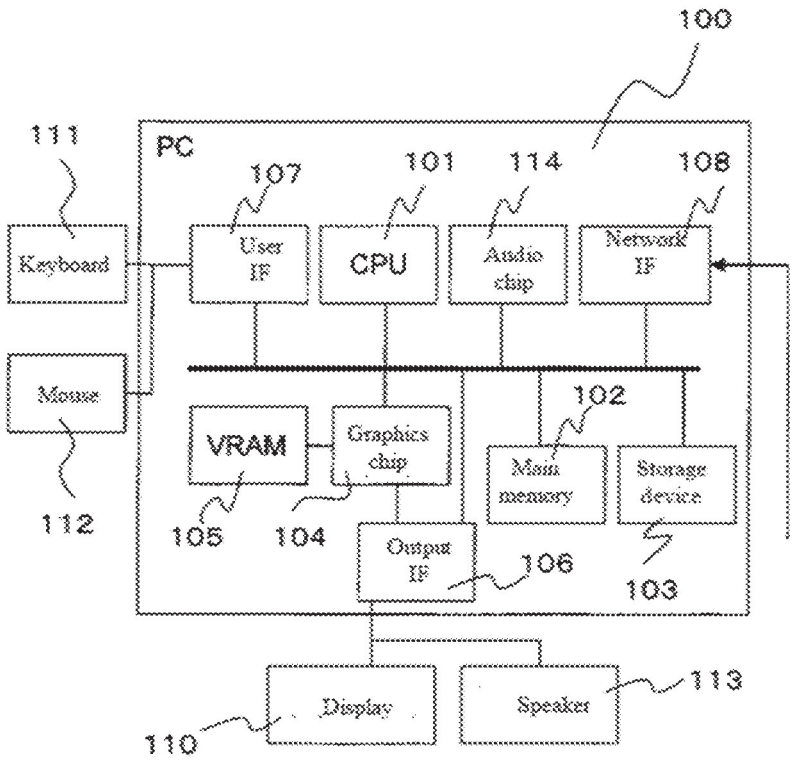
> received by projector 200 is projected onto a screen 30. A wireless LAN card 10 containing a wireless LAN chip is attached to PC 100, thereby transmitting image signals and audio signals to projector 200 via the wireless LAN.

Id., ¶17, *see also* ¶¶19, 76, FIG. 1; Ex. 1002, ¶¶167-169.



Ex. 1031, FIG. 1.

Maeda also discloses that the PC 100 has "*a memory, a display and an operating system*": a main memory 102 and storage device 103 and a display 110. *See*, *e.g.*, Ex. 1031, ¶19, FIG. 2 (reproduced below); Ex. 1002, ¶170.



Ex. 1031, FIG. 2 Excerpted.

A POSITA would have recognized and understood that PC 100 would include an operating system as a piece of fundamental software to manage components of the PC. *See*, *e.g.*, Ex. 1058, ¶125; Ex. 1002, ¶171. Maeda's system also discloses numerous components included of the PC (graphics chip 104, a VRAM 105, an audio chip 114, an output IF 106 that outputs to a display 110 and a speaker 113, a user IF 107 for acquiring instruction signals based on user operations from input devices such as a keyboard 111 and a mouse 112, and a network IF 108 which is an interface for communicating with projector 200, and so on). *See*, *e.g.*, Ex. 1031, ¶¶17-19; Ex. 1002, ¶171. A POSITA would have recognized and understood that such components would have been managed by the operating system of the PC (Windows®, Macintosh OS, Linux, etc. *See*, *e.g.*, Ex. 1030, FIGs. 5, 9, 11 (illustrating a windowed operating system)), which would additionally include communication with a class of devices such as human interface devices, as was known in the art.

See, e.g., Ex. 1030, ¶¶9-12; Ex. 1027, ¶47; Ex. 1026, ¶¶1-3; Ex. 1002, ¶171. The '002 patent also admits that "such a driver is standard for the operating system and can drive a standard class of peripheral devices coupled to or connected to the processing devices." Ex. 1001, 14:35-38; *see also* 5:58-60.

Further, as discussed in further detail below, Ahmed and Deforche disclose "*pre-installed generic drivers providing a communications protocol for communication between the processing device and a class of peripheral devices*." Ex. 1002, ¶¶176-173. Ahmed discloses sending the audio portion of a video stream using an "audio driver":

> a virtual audio driver, referred to as a virtual audio cable (VAC), is installed as a normal audio driver that can be selected as a default playback and/or recording device. A feature of VAC is that, by default, it routes all the audio going to its audio output pin to its input pin

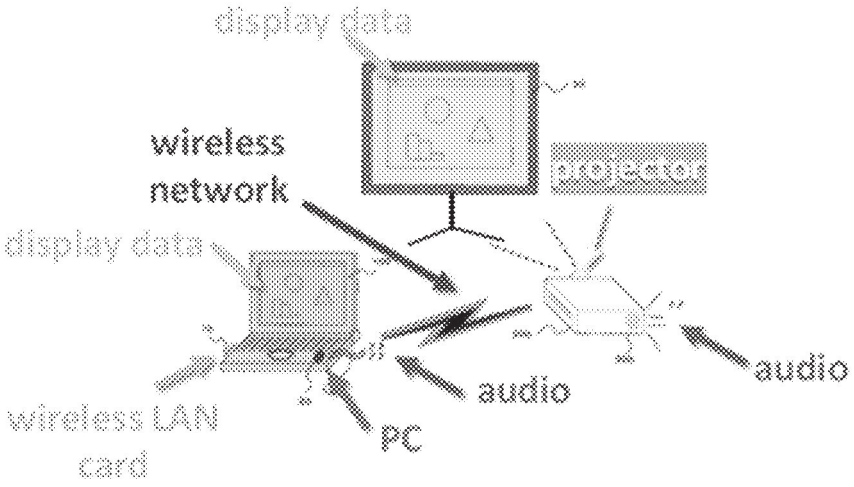
Ex. 1014, 18:26-19:15 (emphasis added); Ex. 1002, ¶172.

Ahmed discloses that "[a] Microsoft Windows Multimedia Library provides an interface to the applications to play audio data on an audio device using waveOut calls." (*Id.*, 17:13-16 (emphasis added); *see also* Ex. 1002, ¶173. Ahmed discloses a "second socket 1203 for transmitting audio" is an example of "*pre-installed generic driver*." Ex. 1014, 27:4-27; *see also id.*, FIG. 12; Ex. 1002, ¶173. To the extent that Ahmed does not disclose that its audio driver is a "*pre-installed generic*," Deforche discloses using "*pre-installed generic driver*" to wirelessly exchange any IP data. Ex. 1030, abstract, ¶¶9-11; Ex. 1002, ¶173.

b) *coupling an external peripheral device physically to a port of the processing device, wherein the peripheral device comprises a wireless transceiver and a connector, said connector configured to couple to the port of the processing device;*

Maeda discloses "*coupling an external peripheral device physically to a port of the processing device, wherein the peripheral device comprises a wireless transceiver and a connector, said connector configured to couple to the port of the processing device*." *See, e.g.*, Ex.

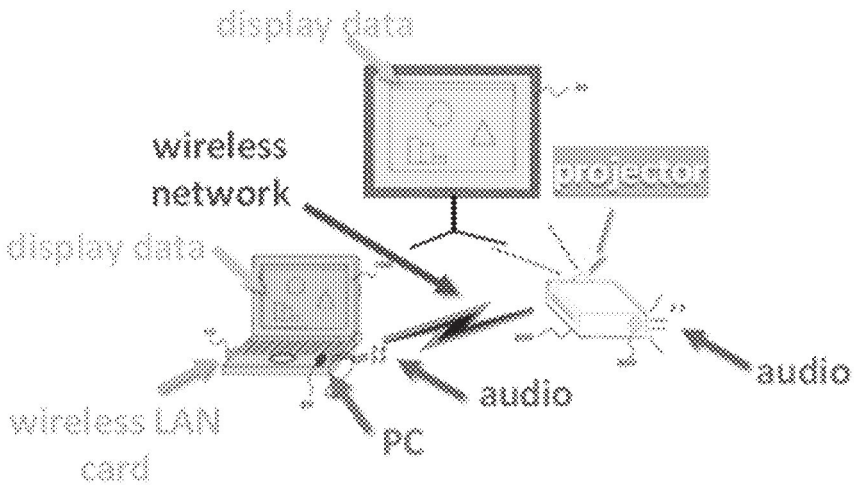
1031, ¶17 ("A wireless LAN card 10 containing a wireless LAN chip is attached to PC 100"), FIG. 1 (reproduced below); Ex. 1002, ¶174; *see additionally*, Ex. 1002, ¶¶175-177. For this network connection, PC 100 includes a network interface, network IF 18 (*e.g.*, a "port"). *See* Ex. 1031, ¶19; Ex. 1002, ¶174.



Ex. 1031, FIG. 1.

c) ***setting up, by means of a first pre-installed generic audio driver of the operating system, a means for audio communication between the peripheral device and the processing device and***

Maeda discloses "*setting up … a means for audio communication between the peripheral device and the processing device*." *See*, *e.g.*, Ex. 1031, ¶¶15, 17 ("A wireless LAN card 10 containing a wireless LAN chip is attached to PC 100, thereby transmitting image signals and audio signals to projector 200 via the wireless LAN"), 19 ("[A] network IF 108 which is an interface for communicating with projector 200 via a LAN or the like"), FIG. 1 (reproduced below); Ex. 1002, ¶178; *see additionally*, *id.*, ¶¶179-188.



Ex. 1031, FIG. 1.

A POSITA would have understood that Maeda used a standard connection such as USB to transmit audio data. Ex. 1031, ¶76; *see also* Ex. 1002, ¶¶179-181. At the time of the alleged invention, the USB standard had become widely-adopted as a way to connect a peripheral device to a computer. *See* Section VII.B.1(b); Ex. 1002, ¶¶179-181; *see additionally*, *id.*, ¶¶38-53. One known feature of the USB standard is its support for plug-and-play capability, which offered the opportunity to insert the peripheral device and quickly be able to use the functionality of the device without having to install a special driver for the peripheral device. *See* Section VII.A.2(b): Ex. 1002, ¶¶179-181. The operating system recognizes the device and establishes communication with the device seamlessly just by simply plugging in a mouse or keyboard, and the user could almost immediately begin using its functionality. Ex. 1002, ¶¶179-181. However, Maeda does not specifically disclose using a "*pre-installed generic audio driver*."

Ahmed discloses sending the audio portion of a video stream using "*a first ... audio driver*":

> a virtual audio driver, referred to as a virtual audio cable (VAC), is installed as a normal audio driver that can be selected as a default playback and/or recording

> device. A feature of VAC is that, by default, it routes all the audio going to its audio output pin to its input pin

Ex. 1014, 18:26-19:15 (emphasis added); Ex. 1002, ¶182.

Ahmed discloses that "[a] Microsoft Windows Multimedia Library provides an interface to the applications to play audio data on an audio device using waveOut calls." (*Id.*, 17:13-16 (emphasis added)); *see also* Ex. 1002, ¶183. Ahmed discloses a "second socket 1203 for transmitting audio" is an example of "*a first pre-installed generic audio driver of the operating system … for audio communication.*" Ex. 1014, 27:4-27; *see also id.*, FIG. 12; Ex. 1002, ¶183.

To the extent that Ahmed does not disclose that its audio driver is a "*pre-installed generic audio driver of the operating system*," Deforche discloses using "*pre-installed generic driver*" to wirelessly exchange any IP data. Ex. 1030, abstract, ¶¶9-11; Ex. 1002, ¶¶184-185. The '002 patent also explains that this limitation was "well-known." Ex. 1001, 3:65-4:9 (citing US 2011/0115689 *See* Ex. 1022, ¶39 ("the OS searches its own files for the driver software."))); Ex. 1002, ¶185. It would thus have been obvious to modify Ahmed to use "*a pre-installed generic audio driver*" because "[t]his has the advantage that the need for a specific driver for the communication between the wireless modem device and the computer device can be avoided." Ex. 1030, ¶9; Ex. 1002, ¶¶185-188. Therefore, Maeda in combination with Ahmed and Deforche discloses this claim limitation. Ex. 1002, ¶178-188.

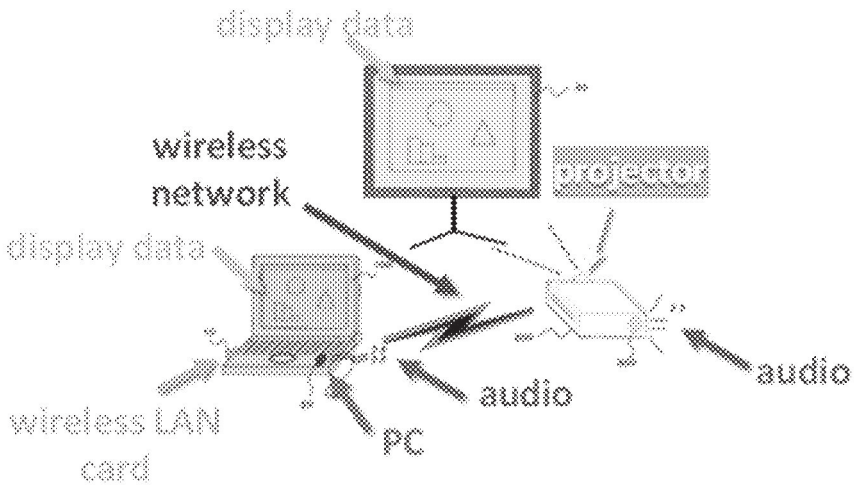
In the related IPR (IPR2024-01436), the patent Owner's Expert, Dr. Brogioli, admitted that Deforche teaches this limitation. Ex. 1072, 72:13-73:13; *see also* Ex. 1030, abstract ("setting up, by means of a pre-installed generic driver of the operating system on the computer device, a modem/host communication interface"). Therefore, the dispute is whether it would have been obvious to use Deforche's standard pre-installed USB drivers, which are found in every major operating system, that allow "*audio communication between the peripheral device and the*

processing device" in Maeda's system. Ex. 1085 (describing the standard USB Audio Class driver included in the Windows OS). Such a combination would have been obvious and likely the first choice of the POSITA because the software is so common and ubiquitous.

In the IPR, the Patent Owner's argument was simply that neither Maeda nor Ahmed teach "*a pre-installed generic driver*." Ex. 1094, 45-46. This entire argument ignores that, to the extent that Maeda's and Ahmed's drivers are not "*a pre-installed generic driver*," it would have been a simple substitution to use such a driver as taught by Deforche. Swapping Maeda's and Ahmed's drivers for Deforche's would have been a simple substitution using known methods to achieve the predictable result of communicating between a processing device and a peripheral device. Ex. 1002, ¶188; *see also In re O'Farrell*, 853 F.2d 894, 903, 7 USPQ2d 1673, 1681 (Fed. Cir. 1988) (citations omitted) (The claimed method would have been obvious because one reference contained a detailed enabling methodology, a suggestion to modify the prior art to produce the claimed invention, and evidence suggesting the modification would be successful).

d) *setting up … by means of a second pre-installed generic driver of the operating system, a means for data communication between the peripheral device and the processing device*

Maeda discloses "*setting up … a means for data communication between the peripheral device and the processing device*" *See, e.g.*, Ex. 1031, ¶¶15 ("[A] PC is used as an image generation device that generates images and audio, and the images and audio are transmitted to a projector, which is an image projection device, using a wireless LAN"), 17 ("A wireless LAN card 10 containing a wireless LAN chip is attached to PC 100, thereby transmitting image signals and audio signals to projector 200 via the wireless LAN"), 19 ("[A] network IF 108 which is an interface for communicating with projector 200 via a LAN or the like"), FIG. 1 (reproduced below); Ex. 1002, ¶¶189-190; *see additionally*, Section VII.B.2.c. However, Maeda does not explain whether it uses "*a second pre-installed generic driver of the operating system.*"



Ex. 1031, FIG. 1.

Ahmed discloses using "a second … driver" as a "a means for data communication between the peripheral device and the processing device" (*e.g.*, "while the various media streams may be multiplexed and transmitted in a single stream, it is preferred to transmit the media data streams separately in a synchronized manner.") Ex. 1014, 27:1-4; Ex. 1002, ¶191. Ahmed also sets up "data communication" using "a second preinstalled generic driver of the operating system" by using a "mirror display driver" and a "first socket 1202 for transmitting video." *See*, *e.g.*, Ex. 1014, Abstract and 27:4-27, *see also id.*, FIG. 12, 8:7-22, 9:12-13, 9:24-31, 10:9-13, 16:7-14, 4:3-5; Ex. 1002, ¶191. Therefore, Ahmed discloses the use of a video driver for capturing video data and, thus, uses separate drivers for audio and video. Ex. 1014, 3:26-28; Ex. 1002, ¶191.

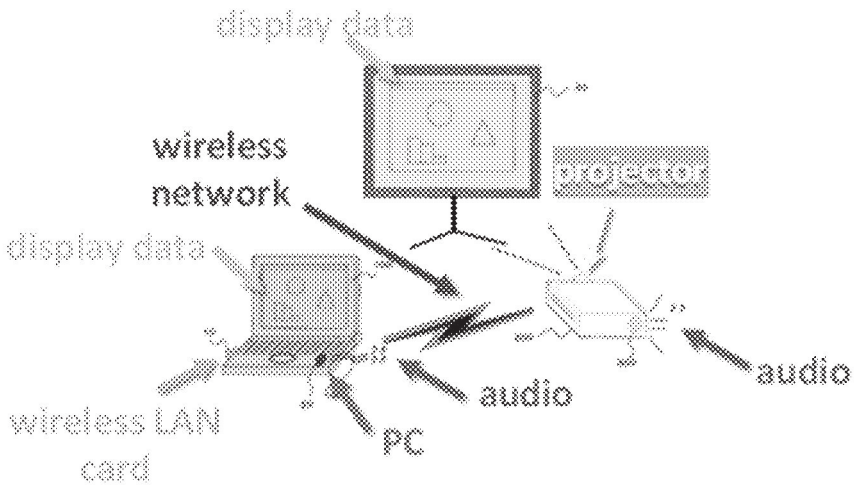
As described with respect to limitation 1(b), Deforche suggests that Ahmed's drivers can be "*second pre-installed generic driver[s] of the operating system.*" *See* Section X.B.2.c (citing Ex. 1030, abstract, ¶¶9-11; Ex. 1002, ¶192. Ahmed further suggests the use of two such drivers-one audio ("normal audio driver") and one for video ("mirror display driver")-in setting up communication between the wireless device and the computer. Ex. 1014, abstract, 18:26-19:15; Ex. 1002, ¶192-197.

e) *using the peripheral device to connect the processing device to a communications network via the wireless transceiver;*

Maeda discloses "*using the peripheral device to connect the processing device to a communications network via the wireless transceiver.*" *See, e.g.*, Ex. 1031, ¶17 ("A wireless LAN card 10 containing a wireless LAN chip is attached to PC 100, thereby transmitting image signals and audio signals to projector 200 via the wireless LAN."); Ex. 1002, ¶¶198. As described above *See* limitation 1(a)), this connection may be achieved through the wireless LAN card's transceiver chip, or other transceiver that enables two-way communication as known in the art. *See* Section X.B.2.b (regarding why a POSITA would have understood Maeda to disclose a transceiver and also why a POSITA would have been motivated to include such a conventional component); Ex. 1002, ¶198.

f) *routing audio data from the processing device to the wireless transceiver via the connector of the peripheral device and the means for audio communication and*

Maeda discloses "*routing audio data from the processing device to the wireless transceiver via the connector of the peripheral device and the means for audio communication.*" *See, e.g.*, Ex. 1031, ¶¶15, 17 ("A wireless LAN card 10 containing a wireless LAN chip is attached to PC 100, thereby transmitting image signals and audio signals to projector 200 via the wireless LAN"), 19 ("[A] network IF 108 which is an interface for communicating with projector 200 via a LAN or the like"), FIG. 1 (reproduced below); Ex. 1002, ¶¶199. As described above, the wireless LAN card/wireless modem device may be presented as a human interface device or other class of peripheral device, *e.g.*, as suggested by Deforche, such that the audio data is routed using audio communication provided by and set up using a pre-installed generic audio driver *See* limitation 1(b) above and 1(g) below). *See, e.g.*, Ex. 1030, ¶¶32-39, 52; Ex. 1002, ¶199.



Ex. 1031, FIG. 1.

This connection may be achieved through the wireless LAN card's transceiver chip, or other transceiver that enables two-way communication as known in the art. A POSITA would have understood Maeda to disclose a transceiver and would have found it obvious to include such a conventional component. *See* Section VII.B.2.b; Ex. 1002, ¶200.

g) *routing the audio data from the wireless transceiver of the peripheral device to a base node over the communications network*

Maeda discloses "*routing the audio data from the wireless transceiver of the peripheral device to a base node over the communications network.*"

> This transmission system is a system in which a screen displayed on the display of PC 100 is transmitted from PC 100 to projector 200 and the screen received by projector 200 is projected onto a screen 30. A wireless LAN card 10 containing a wireless LAN chip is attached to PC 100, thereby transmitting image signals and audio signals to projector 200 via the wireless LAN. The PC 100 also has a built-in speaker 20 that can play audio generated by the PC 100. The projector 200 is also equipped with a speaker 300, which can play audio when an audio signal is received from the PC 100.

Ex. 1031, ¶17; *see also* Ex. 1002, ¶201.

As described above *See* limitation 1(a)), this connection may be achieved through the wireless LAN card's transceiver chip, or other transceiver that enables two-way communication

as known in the art. A POSITA would have understood Maeda to disclose a transceiver and would have found it obvious to include such a conventional component. *See* Section VII.B.2.b; Ex. 1002, ¶201.

h) ***wherein the first pre-installed generic audio driver is used for transferring the audio data between the processing device and the peripheral device.***

See limitation 1(b), supra. *S*ection VII.B.2.c; Ex. 1002, ¶¶202-203.

3. Claim 4

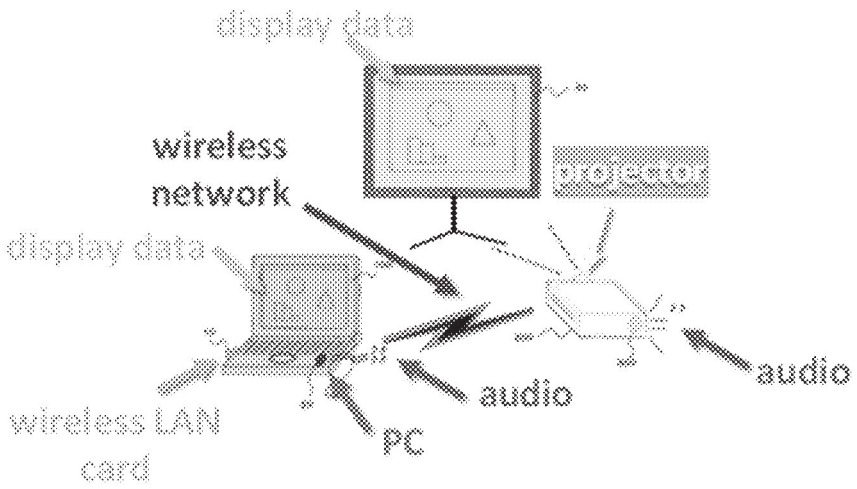
i) ***The method of claim 1 wherein Step b) comprises presenting the peripheral device to the processing device as a composite device and wherein pre-installed generic drivers drive different device interfaces independently.***

Deforche discloses presenting a wireless modem peripheral device (*e.g.*, the "*peripheral device*") to a computer's operating system as a composite device, such that the pre-installed mass storage device driver of the computer can communicate with the peripheral device without the need to install special device drivers. *See*, *e.g.*, Ex. 1030, ¶¶33 ("The USB device can thus expose its USB interface in different ways: (1) A composite device with USB HID and Mass Storage Unit (UMS) device with UMS and HID USB ID; (2) UMS device with 3G USB ID"), 34 ("The USBGo uses USB-HID as a lower layer to avoid having to install a specific driver for the modem."); Ex. 1023, ¶¶39, 45-47, 50; Ex. 1002, ¶204. A POSITA would be motivated to present the peripheral device of Maeda as a composite device using the known technique of Deforche to achieve the disclosed benefits of avoiding installation of a specific driver for the peripheral device.

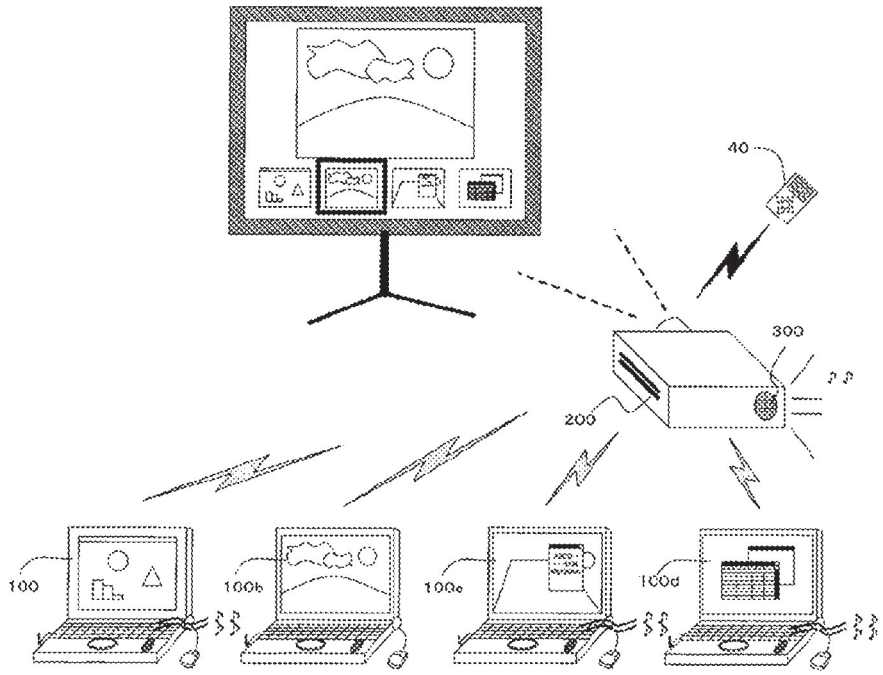
4. Claim 5

a) ***The method of claim 1, wherein a client application is stored on the peripheral device obtains screen scraped data.***

Maeda discloses "*a client application … obtains screen scraped data*" because the same data from the PC is displayed on the projector, as illustrated by FIG. 1:



Ex. 1031, FIG. 1; Ex. 1002, ¶205. The same is true for FIG. 11, but the data from four different displays are scraped and shared together:



Ex. 1031, FIG. 11; Ex. 1002, ¶206. Ahmed further renders obvious that Maeda's sharing of video data can include a "mirror driver is used for computer display duplication." Ex. 1014, 15:24-25; Ex. 1002, ¶207.

Deforche renders obvious that the "*client application is stored on the peripheral device*." Ex. 1030, ¶15 ("the wireless modem device stores at least one application and is provided for launching said application as a portable application, meaning that the application keeps its data (cache) in the memory of the wireless modem device and no traces are left on the computer device."), *see also* ¶¶18, 26-27, 30-31, 47; Ex. 1002, ¶208. Therefore, Maeda either alone or in combination with Deforche renders obvious this limitation.

5. Claim 6

a) *The method of claim 5 wherein the client application is a portable application.*

To the extent that Maeda's software is not considered a "*portable application*," Deforche expressly uses the term "*portable application*." Ex. 1030, ¶15 ("the wireless modem device stores at least one application and is provided for launching said application as a portable application, meaning that the application keeps its data (cache) in the memory of the wireless modem device and no traces are left on the computer device."), *see also* ¶¶18, 26-27, 30-31, 47; Ex. 1002, ¶209. Therefore, Maeda either alone or in combination with Deforche renders obvious this limitation.

Although claim 6 is not challenged in the related IPR (IPR2024-01436), the concepts of a "portable application" and "zero-footprint" operation have been addressed in this IPR. In this IPR, the Patent Owner argued that it would not be obvious to combine Maeda and Ahmed with Deforche's zero-footprint solution. Ex. 1094, 43-44. However, there is no reason why it would not have been obvious to use Deforche's ubiquitous "*pre-installed generic drivers*" to implement a solution based on the combination of Maeda, Ahmed, and Deforche. Ex. 1002, ¶210.

Deforche teaches a preference to use a zero-footprint application that involves the "use of existing USB class drivers." Ex. 1030, ¶¶29-43, 50-51, and FIG. 4a. Deforche also teaches that the zero-footprint application can be any type of application. *Id.*, ¶¶14; *see also* Ex. 1072, 6:11-

24 (Dr. Brogioli testifying that he did not analyze what "Ono may or may not look like for a zero-footprint software solution"); Ex. 1002, ¶211. There is nothing prohibiting implementing Maeda's application as a zero-footprint application. *Id*. The only evidence the Patent Owner identified is Ahmed's use of the word "install," which according to the Patent Owner, means that installation is "required." Ex. 1094, 43-44; Ex. 1002, ¶212. However, Dr. Brogioli testified that installing some software would still meet the claim limitations. Ex. 1070, 20:11-24:23 (testifying that Barco's software is zero-footprint despite driver installation); *see also* Ex. 1002, ¶212-215.

Overall, the Patent Owner's arguments presented in the IPR fail because they require use of an improper and "rigid formula," apparently requiring all limitations to be in a single reference, which contravenes common sense application of Deforche's zero-footprint advantages that would have been obvious to apply to Maeda's system ready for improvement. *Leapfrog Enterprises, Inc. v. Fisher-Price, Inc.*, 485 F. 3d 1157, 1161 (citing *KSR*, 27 S. Ct. at 1739).

6. Claim 7

a) *The method of claim 1 wherein the peripheral device is adapted to analyze an incoming signal from the processing device and if no audio is received, the incoming signal is discarded.*

A POSITA would understand that if no audio is received in an incoming audio signal, it would be common practice to discard the audio signal, as the signal has no useful information. This is evidenced, for example, by Leblanc, which describes analyzing audio signal and discarding the signal if no audio is present. Ex. 1066, ¶¶ 70 ("In a third 'conservative' mode, the VAD identifies low level (but audible) digital voice samples as inactive, but will be fairly conservative about discarding the digital voice samples. A low percentage of active speech will be clipped at the expense of slightly higher transmit bandwidth.), 71 ("In a fourth 'aggressive' mode, bandwidth is at a premium. The VAD is aggressive about discarding digital voice samples which are declared inactive."); Ex. 1002, ¶216 A POSITA would be motivated to incorporate such commonplace

signal processing strategies in the peripheral device of Maeda using known techniques, such as shown by Leblanc and known by a POSITA, to achieve known advantages, such as improving system bandwidth. *Id.*

7. Claim 8

b) *The method of claim 7 wherein if audio is received, the peripheral device will initiate an additional TCP/IP socket connection to the base unit through the communications network.*

Ahmed discloses *if audio is received, the peripheral device will initiate an additional TCP/IP socket connection to the base unit through the communications network* (*e.g.*, "second socket 1203 for transmitting audio") Ex. 1014, 27:4-27, 32:24-31; *see also id.*, FIG. 12; Ex. 1002, ¶217. FIG. 5 of Ahmed illustrates a step 505 occurring after *audio is received*, and FIG. 7 illustrates step 701 that *will initiate an additional TCP/IP socket connection to the base unit through the communications network.* Ex. 1014, 19:10-15, 19:28-20:4; Ex. 1002, ¶217.

VIII. Barco's Concerns with Dr. Almeroth's Testimony Should Not Be Afforded Weight.

Barco selectively references Dr. Almeroth's testimony from his seven declarations and four depositions to suggest inconsistency. For instance, Barco highlights Dr. Almeroth's statement that "data is data." Ex. 1094 (POR), 14, citing Ex. 1100 (Ex. 2006 transcript from IPR2024-01436)). It is universally accepted that all data in general-purpose computers comprises binary values—1's and 0's—and that such data is transmitted and received over various interfaces, including USB, independent of data type. Dr. Almeroth's testimony was limited to this foundational concept and does not reflect any deficiency in his expertise. Ex. 1002, ¶218.

In a separate proceeding addressing an unrelated issue, Dr. Almeroth testified regarding prior art that teaches transcoding data "based on a type of functional data." Ex. 1101 (Ex. 2030, IPR2024-01436), ¶¶212-213). This illustrates the routine nature of encoding and decoding audio and video data with different codecs. That testimony is not pertinent to Dr. Almeroth's "data is

data" comment, aside from reaffirming that all digital data consists of 1's and 0's transferable across any general-purpose computer interface, such as USB. Additionally, Barco asserts that Dr. Almeroth lacks clarity regarding the definition of "driver," noting that he provided a specific definition for this proceeding. There is no inconsistency in this position, as the term "driver" can have varied meanings depending on context. Ex. 1002, ¶¶219-221.

Furthermore, Barco devotes over five pages to disputing Dr. Almeroth's well-supported opinion that implementation details represent design choices, claiming unreliability and inconsistency. Ex. 1094, 13-19. Barco's argument attempts to confine the prior art solely to its explicit disclosures, disregarding how a person of ordinary skill in the art would recognize the many possible methods of implementation. As established in *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 127 S. Ct. 1727, 1741 (2007) ("[T]he analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.") Thus, Barco's arguments lack support under prevailing legal standards. Ex. 1083, ¶¶2-5; Ex. 1002, ¶¶219-221.

IX. Secondary Considerations Do Not Overcome the Strong Grounds of Rejection

Barco's patentability arguments are weak and rely on features already in the prior art. Their rationale for combining elements is unsupported by law, and they have not shown a nexus for any claimed commercial success.

A. Barco's ClickShare Product Lacks Nexus because It Is Not Essentially the Claimed Invention.

Barco cannot claim a presumption of nexus when the patented invention is only a component of a commercially successful product, unless unclaimed features are insignificant. *See*

Demaco Corp. v. F. Von Langsdorff Licensing Ltd., 851 F.2d 1387, 1392 (Fed. Cir. 1988); *Fox Factory, Inc. v. SRAM, LLC*, 944 F.3d 1366, 1374 (Fed. Cir. 2019).

Barco's ClickShare product is not coextensive with the claimed invention because it includes significant unclaimed features. For example, the ClickShare product can work with or without a peripheral device (dongle) by using either the ClickShare app or other platforms, such as Teams or Zoom. Ex. 1076 (Barco base unit sold without dongles and works with Teams and Zoom); Ex. 1077 (Barco instructions for using a base unit without a dongle). Indeed, most meetings today are conducted using software solutions, such as Teams and Zoom, without any dongle; Dr. Brogioli could not even recall ever using a dongle to share content prior to this case. Ex. 1084, 91:14-23. Using the ClickShare Product without the dongle is not an insignificant feature; nexus, therefore, cannot be presumed.

Barco holds several patents for distinct inventions, including U.S. Patent Nos. 10,762,002 (the '002 patent, Ex. 1001), 11,403,237 (the '237 patent, Ex. 1087), 11,422,951 (the '951 patent, Ex. 1089), and the '676 patent (Ex. 1088). Only the '951 patent has a terminal disclaimer, and it is over a different application. Barco has not and cannot account for the independent value attributed to each of its patents. Each patent covers different features—media sharing methods ('002), network connectivity via a peripheral device ('237), meeting systems for sharing content ('676), and wireless media display tools ('951)—meaning none is coextensive with the ClickShare product, which relies on multiple critical features covered by several patents.

B. Barco Failed to Demonstrate "Commercial Success" Due to the Claimed Features.

Barco's evidence of revenue alone does not establish secondary considerations without showing it is the "direct result" of the claimed features. *See In re Huang*, 100 F.3d 135, 140 (Fed. Cir. 1996). Barco relied solely on a presumption of nexus and did not show revenue was due to

the claimed features rather than significant unclaimed ones. It is not possible to separate revenue from claimed and commonly used features, such as compatibility with Teams and Zoom. Yealink ceased selling dongles in the U.S. but continues selling base units, indicating base units retain value without dongles. *See* Ex. 1082. Barco's products also function without a dongle or peripheral device. *See* Ex. 1076, Ex. 1077. Barco does not show how much revenue is tied to the claimed features versus unclaimed ones.

C. Barco Failed to Show the '002 Patent Covers Crestron's Products.

Barco has publicly relied on a confidential Crestron license in related IPRs. However, Barco must show more than the mere existence of a license. *See Sibia Neurosciences, Inc. v. Cadus Pharm. Corp.*, 225 F.3d 1349, 1358 (Fed. Cir. 2000) ("[T]he mere existence of these licenses is insufficient to overcome the conclusion of obviousness ...."); *see also Merck & Cie v. Gnosis S.P.A.*, 808 F.3d 829, 838 (Fed. Cir. 2015) ("It is therefore difficult to determine the extent to which the licensing agreement was a result of the novel features in the [challenged] patent, as opposed to the other patents involved."). Yet Barco offers little beyond just that. In fact, the value of the Crestron license extends well beyond the '002 patent at least because it is a "global patent license" for multiple patents. Ex. 1096. There is no evidence that Crestron entered the license because it believed that Barco's patents were valid or enforceable. *Teva Pharms. Int'l GmbH v. Eli Lilly & Co.*, 8 F.4th 1349, 1364 (Fed. Cir. 2021). The Federal Circuit affirmed a Board decision holding the Patent Owner did not show "that any of the challenged patents cover the [licensee's] Product by a comparison of the [ ] product to the challenged claims." *Id.* Here, too, Barco fails to explain how Crestron's products embody the claim limitations. Therefore, there is insufficient evidence of a nexus.

X. The Proposed Grounds Are Not Substantially the Same as Previously Considered Art or Arguments

The Board already instituted trial in IPR2024-01436 for some claims finding a reasonable likelihood of success. After filing that IPR petition, Requester was asked to admit infringement to additional claims, which are the only claims for which reexamination is requested. There is no history of abusive filings from the Requester or against the '002 patent. The '002 patent issued only in 2020, and therefore there are no settled expectations regarding patentability. Furthermore, the Office has determined that *Advanced Bionics* does not apply to reexaminations.[2] This request passes the *Advanced Bionics* test even if it did apply.

First, there have been no post-grant challenges to any of challenged claims 4–7. Independent claims 1, 11, and 21 are currently subject to *inter partes* review, but this request only challenges their dependent claims, and by virtue the limitations of their parent claims. Therefore, there is no overlap in challenged claims between this request and the pending IPR.

A. Factors (a), (b) and (d): "(a) the similarities and material differences between the Asserted Art and the prior art involved during examination; (b) the cumulative nature of the Asserted Art and the prior art evaluated during examination; (d) the extent of the overlap between the arguments made during examination and the manner in which Petitioner relies on the prior art."

The Asserted Art was not the basis of any rejection nor substantively evaluated. (*See generally* Ex. 1004). Patent Owner listed Deforche on an IDS among hundreds of references and materials, but the examiner and the Patent Owner never mentioned them.

[2] As the Office of Patent Legal Administration has explained, *Advanced Bionics* and the "*Becton* factors were specifically formulated to apply to AIA trial proceedings, not to *ex parte* reexamination proceedings." *See* Reexam Petition Decision, Ctrl. No. 90/014,801, at p. 6 (August 31, 2022); *see also Advanced Bionics, LLC v. MEDEL Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6 (PTAB Feb. 13, 2020) (precedential); *Becton, Dickinson & Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8 (PTAB Dec. 15, 2017) (precedential as to § III.C.5., first paragraph).

The Board is considering similar grounds for different claims in IPR2024-01436, but not for the claims for which reexamination is requested. Moreover, the examiner materially erred, as discussed below.

B. Factors (c), (e), and (f): "(c) the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection; (e) whether petitioner has pointed out sufficiently how the examiner erred in its evaluation of the asserted prior art; (f) the extent to which additional evidence and facts presented in this petition warrant reconsideration of the prior art or arguments."

The examiner allowed the claims based on the audio data being routed "from the processing device to the wireless transceiver … [and] from the wireless transceiver of the peripheral device to a base node"). (Ex. 1004, 571-75). Yet as discussed, Kaplan and Maeda teach the claimed routing of audio data and were not considered by the Office. *See* §§VIX.A.1, VI.B.1, VI.C.1; Ex. 1002, ¶¶xxx. Although Deforche was cited, the record lacks any evidence that it was considered for the remaining claim limitations. *See* §III.B. Therefore, the examiner materially erred in failing to address Deforche's teachings, particularly given the combination of teachings relied upon here. Accordingly, discretionary denial is not appropriate. *Keysight Technologies, Inc. v. Centripetal Networks, Inc.*, IPR2022-1421, Paper 14, 8 (PTAB Aug. 24, 2023) (reversing denial of institution when art cited in an IDS was not addressed); *see also Oticon Medical AB v. Cochlear Limited*, IPR2019-975, Paper 15, 19-20 (October 16, 2019) (most references were cited but not considered) (precedential); and *Parse Biosciences, Inc. v. 10x Genomics, Inc.*, IPR2023-876, Paper 7, 16 (PTAB Oct. 13, 2023) (instituting review when the examiner did not consider relevant teachings of cited art).

XI. CONCLUSION

The prior art references render obvious claims 4-7 of the '002 patent and raise substantial new questions of patentability. The reasons for finding the claims unpatentable are not cumulative

with the grounds previously considered. The Requester respectfully requests that the Office order reexamination with special dispatch.

Dated: November 12, 2025

Respectfully submitted,

By: /Stephen Yang/

Stephen Yang
Registration No. 70,589
DENTONS US LLP
P.O. Box 1302
Chicago, Illinois 60604
(312) 876-8000
Attorneys for Requester