IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Beel Inventors: Koen Beel *et al.* Patent No.: US 11,403,237 Filed: April 20, 2020 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 107
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Request for *Ex Parte* Reexamination of U.S. Patent No. 11,403,237

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a) *A method for connecting a processing device to a communications network, the processing device having a memory, a display, an operating system and communication between processing device and a class of peripheral devices, the method comprising* 41

b) a) *coupling an external peripheral device physically to a port of the processing device, the external peripheral device having a transceiver and a connector configured to couple to the port of the processing device* 42

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2. CLAIM 1 56

a) *A method for connecting a processing device to a communications network, the processing device having a memory, a display, an operating system and communication between processing device and a class of peripheral devices, the method comprising:* 56

b) *a) coupling an external peripheral device physically to a port of the processing device, the external peripheral device having a transceiver and a connector configured to couple to the port of the processing device* 58

c) *presenting the external peripheral device to the processing device as a human interface device* 61

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e) *c) reading the audio data from the port* 64

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3. CLAIM 2 65

a) *The method of claim 1, wherein the audio device comprises an audio output adapter device which is configured as a virtual audio device to transfer the audio data from the processing device to the base node via the communications network.* 65

4. CLAIM 4 66

a) *The method of claim 1, wherein a client application is stored on the external peripheral device which when run on the processing device obtains screen scraped data.* 66

5. CLAIM 5 67

a) *The method of claim 4, wherein the client application is a portable application.* 67

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I. LIST OF EXHIBITS

EXHIBIT	DESCRIPTION
Ex. 1001	U.S. Patent No. 11,403,237
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. 11,403,237
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–Ex. 1029	**RESERVED**
Ex. 1030	EP Patent Application Publication No. 2107463 ("Deforche")
Ex. 1031	English Translation of Japanese 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

EXHIBIT	DESCRIPTION
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–Ex. 1067	**RESERVED**
Ex. 1068	'237 Brogioli report (IPR2024-01437, Ex. 2004)
Ex. 1069	CSE-200 Base Unit Firmware
Ex. 1070	Brogioli '002 depo transcript
Ex. 1071	Patent Owner's Opening Claim Construction Brief
Ex. 1072	Brogioli '676 depo transcript
Ex. 1073	**RESERVED**
Ex. 1074	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	**RESERVED**
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	**RESERVED**
Ex. 1086	U.S. Patent No. 11,403,002
Ex. 1087	**RESERVED**
Ex. 1088	U.S. Patent No. 11,258,676
Ex. 1089	U.S. Patent No. 11,422,951
Ex. 1090–Ex. 1095	**RESERVED**

EXHIBIT	DESCRIPTION
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.1099	**RESERVED**
Ex. 1100	EX-2006, transcript from IPR2024-01436
Ex. 1101	Ex. 2030 from IPR2024-01436
Ex. 1102	IPR Petition in IPR2024-01437
Ex. 1103	Institution Decision in IPR2024-01437
Ex. 1104	Patent Owner Response in IPR2024-01437
Ex. 1105	Petitioner's Reply in IPR2024-01437

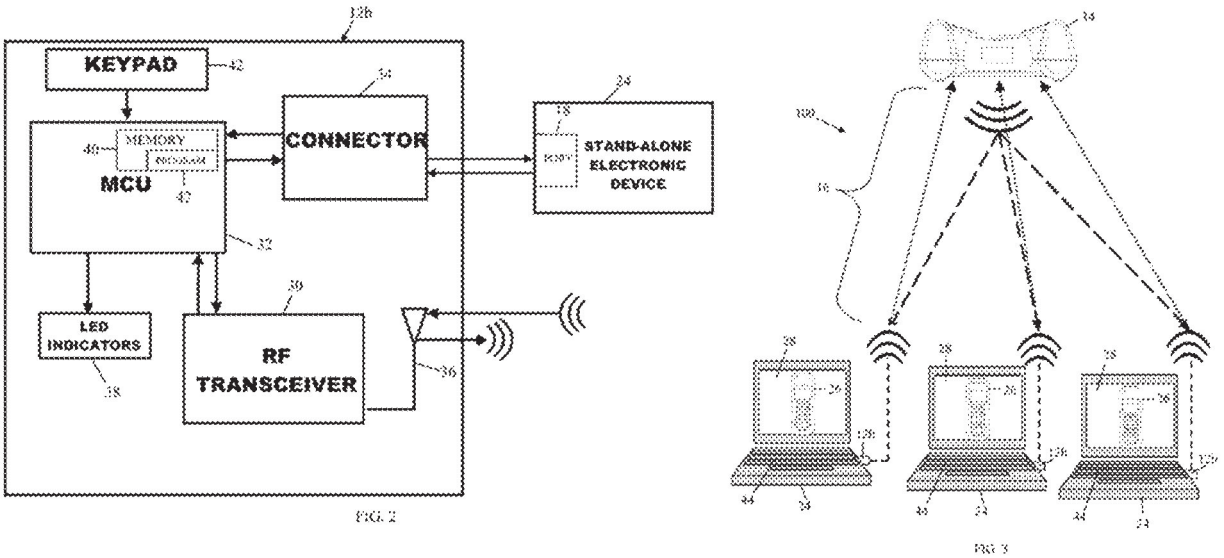
II. INTRODUCTION

Pursuant to 37 C.F.R. § 1.510, the requester respectfully requests reexamination of claims 2, 4-5, and 7-8 of U.S. Patent No. 11,403,237 ("the '237 patent"), and a finding that claims 2, 4-5, and 7-8 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 '237 patent recognizes an "explosion of communication electronic communication tools" and acknowledges the known desirability for tools allowing greater participation in meetings Ex. 1001, 1:28-36, 2:26-44; Ex. 1002, ¶¶54-55. One prior system uses a USB dongle to effectively turn an electronic device into an audience-participation device. Ex. 1020, abstract; Ex. 1002, ¶55. Specifically, 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. Ex. 1020, ¶¶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, ¶¶20, 24-26, 33; Ex. 1002, ¶55.



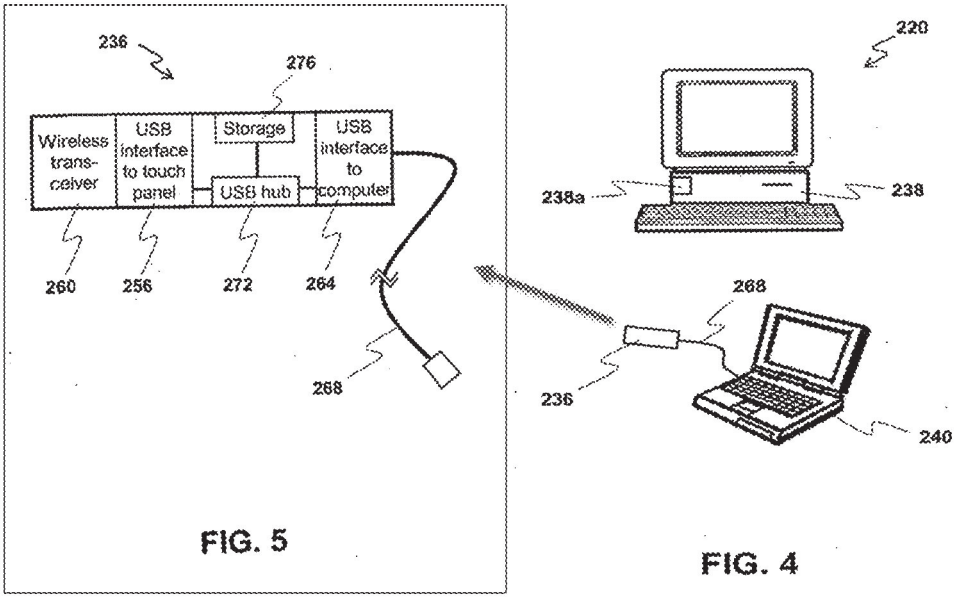
Ex. 1020, FIGs. 2-3.[1]

The '237 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, 3:12-24; 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.* The '237 patent concedes that 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 '237 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, 4:7-14; Ex. 1002, ¶57. The '237 patent concedes these references describe the use of "well-known USB interface of the computer for extracting the display content of the computer" and

[1] All annotations throughout are added unless noted otherwise.

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.



Ex. 1021, FIGs. 4-5.

B. The Purported Invention

The '237 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, 4:49-61; Ex. 1002, ¶¶59-61. Yet, the '237 patent 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.*, 4:7-18, 18:10-13, 20:31-46, 33:60-36:42; Ex. 1002, ¶59-60; Section VI.A.

Notably, the examiner stated the "primary reason for allowance of the claims is the recitation of 'presenting the external device to the processing device as a human interface device' in combination with the rest of the claims is not taught by the prior art on record." Ex. 1004, 390-

95. However, presenting external peripheral devices as human interface devices (HID) was very well known in the art. *See, e.g.*, Ex. 1030, ¶¶10, 33, FIG. 1 ("HID and MSD [mass storage device] drivers [were] known per se in the art"); Ex. 1026, ¶¶3, 10; Ex. 1023, ¶¶39, 45-47, 50; Ex. 1002, ¶61.

Despite the assertions of the '237 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; *see generally* Ex. 1026, Ex. 1027, Ex. 1030, and Ex. 1031.

C. Summary of the Prosecution History

The examiner initially rejected the claims as obvious over US 2007/0033289 ("Nuyttens") in view of US 2009/0247006 ("Thompson").[2] Ex. 1004, 854-65; Ex. 1002, ¶¶62-63. In response, the Patent Owner made minimal amendments and, in relevant part, amended the claims to add the additional limitation of "presenting the external peripheral device to the processing device as a human interface device." Ex. 1004, 669-73 (response of 7/13/2021). Further, Patent Owner argued for "connecting a processing device like a laptop to a LAN, one having ordinary skill would have selected the appropriate driver to package the data for transmission, e.g., will use a modem. HID drivers are designed to work with a modem." Ex. 1004, 676. Patent Owner stated "only in the present application is one having ordinary skill taught of the peripheral device where it is particularly advantageous and non-obvious to select the HID driver. By doing so it is possible to avoid the network interfaces of the processing device." Ex. 1004, 676. Based on this amendment and Patent Owner's arguments, the examiner

[2] Two dependent claims were rejected as obvious over the prior stated combination in further view of US 2013/0060662. Ex. 1004, 863-64.

issued a Notice of Allowance, stating that the prior art did not teach this additional limitation recited above. Ex. 1004, 388-95. The examiner additionally cited US 2004/0012669 (and its later-issued patent US 7,450,149) as indicative of the state of the art. (*Id).*

Patent Owner's statements were incorrect, however. As an example, EP 2107463 ("Deforche," discussed below) discloses "a pre-installed generic driver of an operating system installed on the computer device is used for setting up a modem/host communication interface by means of which the wireless modem device and the computer device can communicate with each other." Ex. 1030, ¶9. Importantly, Deforche discloses that an "example of such a generic driver is a human interface driver (HID)." Ex. 1030, ¶10. The examiner did not discuss Deforche on the record or the other prior art references asserted in this petition. The prior art discussed on the record and used in the examiner's rejections, while related to network systems, focuses on different problems in the art and, specifically, does not discuss external peripheral devices physically connected to a processing device for connecting, and transferring data between, the processing device to a communications network through an HID. Ex. 1002, ¶¶62-63.

D. The *Inter Partes* Review of the '237 Patent.

The '237 patent is the subject of IPR2024-01437. The Petition sets forth that the challenged claims are unpatentable over the prior art, identifying specific references and rationales for obviousness. Ex. 1102. The Board's institution decision finds a reasonable likelihood that Petitioner would prevail on at least one challenged claim, agreeing that the Petition raises substantial questions of patentability. Ex. 1103. The subsequent Patent Owner's Response primarily reiterates arguments made during prosecution and advances flawed interpretations of the prior art and claim scope, failing to rebut the Petition's grounds. Ex. 1103. The Petitioner's Reply demonstrates that the Patent Owner's arguments are unpersuasive and unsupported, and further clarifies how the prior art teaches or discloses all claim limitations. Ex.

1104. Claims 1, 3, 9, 18, and 19 are at issue in the IPR and are not at issue in this Reexam request. *See also* Ex. 1002, ¶¶64, 194-197.

E. Claim Terms to be Construed

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. "*coupled*" (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, 15:55-63; *See* Ex. 1002, ¶70.

2. "*the audio device comprises an audio output adapter device*" (claim 2)

Patent owner has argued in district court that the antecedent basis issue with this claim resulted from removing the following limitation from claim 1: "reading the audio data from the port using an audio device on the external peripheral device[.]" Ex. 1071, 20–21 (citing Ex. H at 923). Therefore, Patent Owner interprets this limitation as being "an audio device on the external

peripheral device." Requester adopts this construction for purposes of this reexam request. *See* Ex. 1002, ¶71.

3. *"a virtual audio device to transfer the audio data from the processing device to the base node via the communications network."* (claim 2)

The '237 patent defines this term as follows:

> peripheral device can present itself as an audio out device to the processing device such as a laptop, PDA, laptop, smartphone, tablet, PC, etc it is connected to. As soon as the peripheral device is plugged in, the user of the processing device will see an additional audio out interface displayed on the processing device display to which it can stream the audio. Audio configuration advantageously can be done using the standard audio interface GUI on the processing device. The peripheral device can present itself as a USB composite device. Ex. 1001, 30:66-31:8.

The construction can be summarized as "a peripheral device that appears as an audio device to the processing device and is configured to stream audio data to the base unit." *See* Ex. 1002, ¶¶72-73.

4. *"screen scraped data"* (claim 4)

The '237 patent states that "'[s]creen scraping' in our sense refers to reading the video frame buffers and processing them, rather than just rendering them on a display." Ex. 1001, 14:16-20; *see also* Ex. 1002, ¶74.

5. *"portable application"* (claim 5)

The '237 patent states that a "'portable application' (portable app), sometimes also called standalone, is a computer software program designed to run without installation on the target machine." Ex. 1001, 12:38-13:28; *see* Ex. 1002, ¶75.

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

Requester satisfies each requirement for *ex parte* reexamination of the '237 patent as stated below.

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

See 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

Exs. 1027, 1026, 1031, 1030, and 1014 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 '237 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. 11,403,237 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:

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 '237 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 '237 patent is also the subject of IPR2024-01437, but claim 2 is not at issue in that IPR.

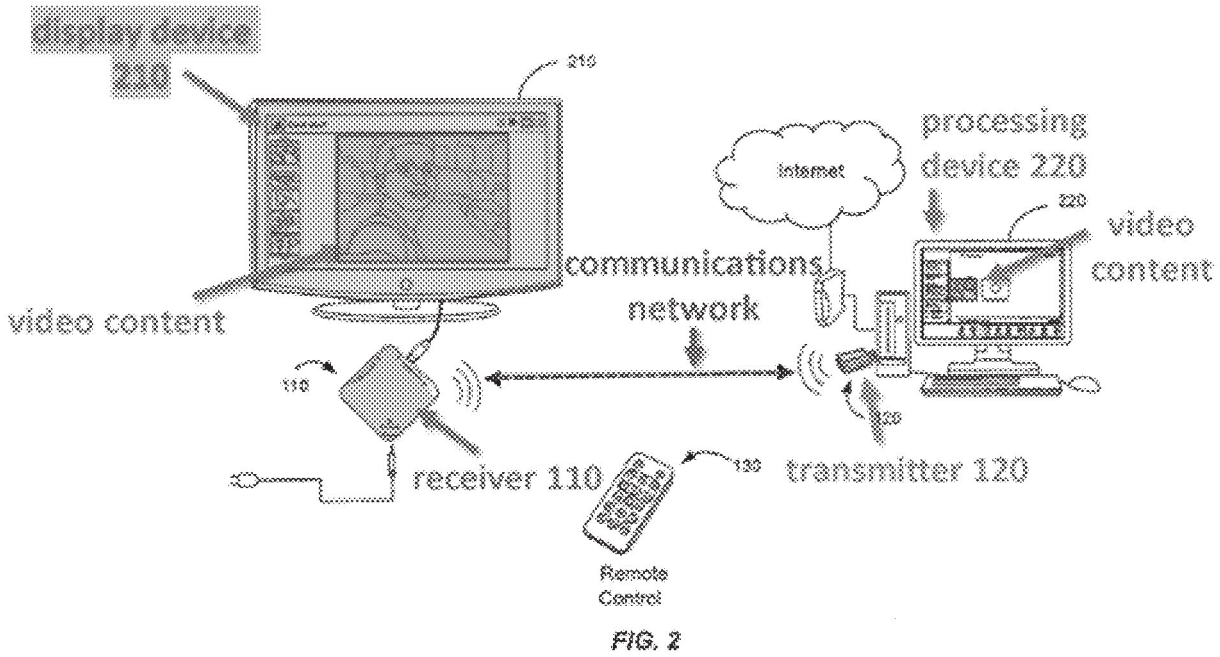
The requester, under 35 U.S.C. § 305, respectfully urges this request be granted and the reexamination be conducted not only with "special dispatch," but also with "priority over all other cases" under MPEP § 2261.

V. SUMMARY OF THE PRIOR ART

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

A. Kaplan (Ex. 1027)

Like the '237 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, ¶¶76-78. In particular, Kaplan discloses a communications system 100 in which 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, ¶77. 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, ¶77. 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, ¶77.



Ex. 1027, FIG. 1.

B. Mardiks (Ex. 1026)

Like the '237 patent, Mardiks discloses a USB peripheral device that can automatically launch an application residing in its memory after it is connected to a host. Ex. 1026, abstract; Ex. 1002, ¶¶79-81. As discussed by Mardiks, the Universal Serial Bus (USB) standard allows interfacing between the host and the peripheral device through a provided communications protocol, where the peripheral devices may be keyboards, compact disc (CD) players, USB flash drives, or other similar devices. Ex. 1026, ¶1; Ex. 1002, ¶79. Mardiks recognized that the USB standard did not provide for automatic launching of programs in its standard protocol; therefore, Mardiks sought and disclosed a method to "configure a USB flash drive so that, upon connection to a host supporting the USB standard … the USB flash drive would automatically launch an application residing in its memory." Ex. 1026, ¶¶4-5; Ex. 1002, ¶79. The advantage in such a system was that the user would not have to manually input additional commands to execute and launch the application. Ex. 1026, ¶4; Ex. 1002, ¶79.

Mardiks, therefore, uses a USB peripheral device 10 that included a USB interface 14, a controller 16, and a non-volatile memory 18 therein. Ex. 1026, ¶19; Ex. 1002, ¶80. An "application may reside on the non-volatile memory 18. Accordingly, the startup script may be written to cause the host 12 to execute the application." Ex. 1026, ¶24. Alternatively, Mardiks disclosed that the startup script could be written to either cause the host to automatically execute an application on a network or that resided within the host itself. Ex. 1026, ¶26; Ex. 1002, ¶80.

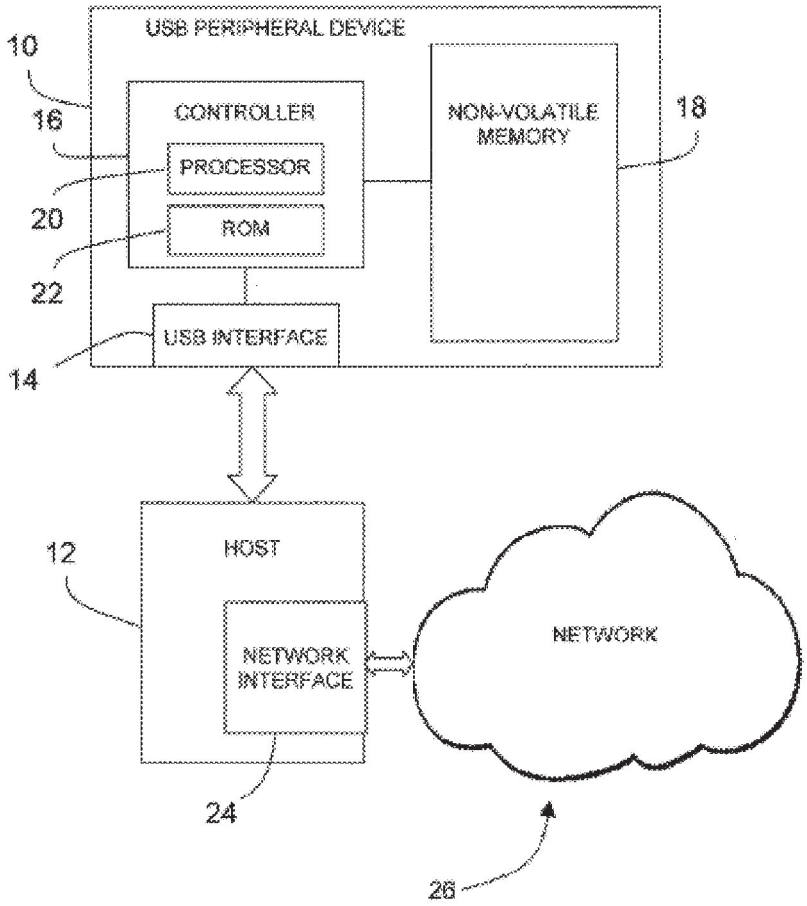


Fig. 1A

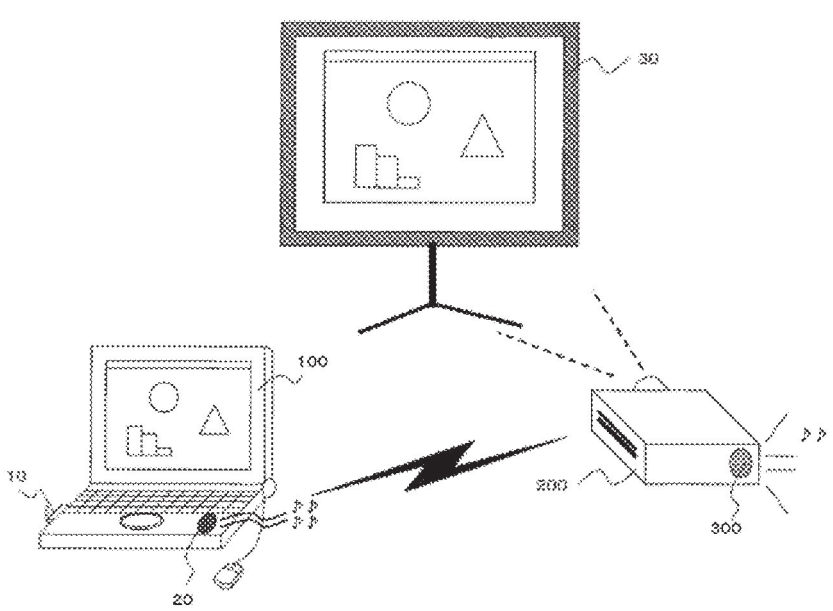
Ex. 1026, FIG. 1A.

Mardiks demonstrates that it was common knowledge in the art regarding the ability to have an application automatically execute once it was connected to a host computing device, including whether the application was stored on the USB peripheral device itself, or on a network or the host computing device. Ex. 1002, ¶81.

C. Maeda (Ex. 1031[3])

Like the '237 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, ¶15; Ex. 1002, ¶¶82-83. In Maeda's discloses system, 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.

[3] This is the English Translation (Ex. 1031) to JP Patent Application Publication No. 2008-165007 (Ex. 1055). All citations are to the English Translation (Ex. 1031). Ex. 1056 is the corresponding certificate of certified translation.



Ex. 1031, FIG. 1.

D. Deforche (Ex. 1030)

Like the '237 patent, Deforche uses a "pre-installed generic driver providing a generic communications protocol (7) for communication between [a] host computer device and a standard class of computer peripheral devices" where the peripheral device connects the host computer to a wireless communication network. Ex. 1030, abstract; Ex. 1002, ¶¶84-85. In its disclosure, 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." *Id.*, ¶10. These "HID and MSD drivers [were] known per se in the art." *Id.*

Deforche's disclosure discusses that 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." *Id.*, ¶9. According to Deforche, this method was advantageous to users because it avoided the "need for a specific driver for the communication between the wireless modem device and the computer device" to be downloaded/installed, which was additionally important for users with restricted user rights, *i.e.*, user rights do not allow for installation of the necessary driver to the device. *Id.*; Ex. 1002, ¶85. Additionally, Deforche noted that the method was further advantageous because the method leaves "zero footprint, *i.e.* the wireless modem device "leaves no trace … on the computer device." Ex. 1030, ¶16; Ex. 1002, ¶85.

E. Ahmed (Ex. 1014)

Like the '237 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, ¶¶86-87. Ahmed's computing device 101 (such 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, ¶86.

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, ¶87. 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, ¶87. 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, ¶87.

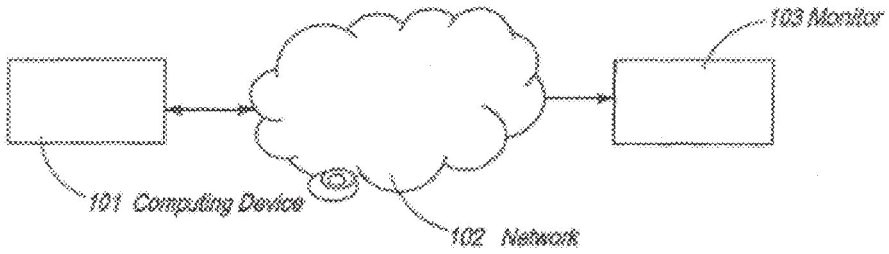


FIG. 1

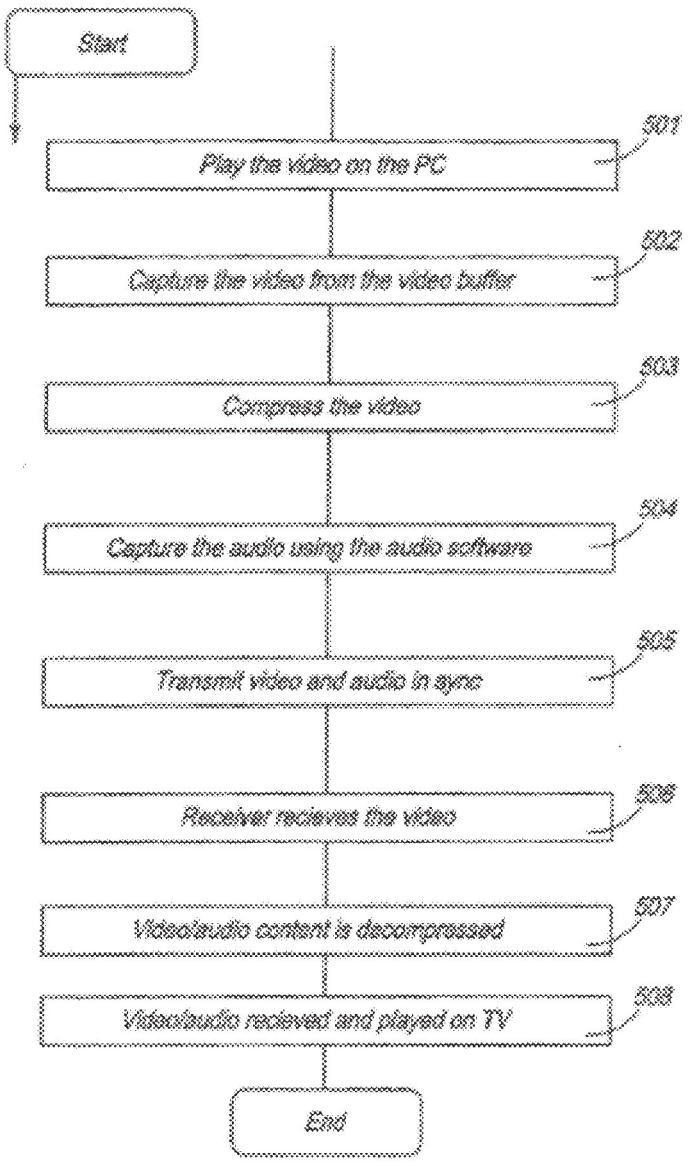


FIG. 5

Ex. 1014, FIGs. 1, 5.

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 2 further limits claim 1 to require an audio device on the computer's peripheral device "*which is configured as a virtual audio device to transfer the audio data from the processing device to the base node via the communications network.*" Claim 3 further limits the method to include "*presenting the external peripheral device to the processing device as any of the following: a mass storage device; and a composite device*." Claim 4 further limits the "*client application*" to being "*stored on the external peripheral device which when run on the processing device obtains screen scraped data.*" Claim 5 further limits the "*client application*" to being a "*portable application.*" Claim 7 further limits the method to including a step of "*time-stamping synchronously a stream of the audio data with a stream of the display data.*" Claim 8 further limits the method to including a step of "*encoding, optionally encrypting the audio data.*" The proposed grounds present SNQs for at least this limitation. *See* Ex. 1002, ¶¶88-89.

A. SNQ No. 1 – The combination of Kaplan, Mardiks, and Ahmed renders obvious claims 2, 4-5, and 7-8 of the '237 patent under 35 U.S.C. § 103.

The new, non-cumulative, and not previously considered arguments with respect to the combination of Kaplan, Mardiks, and Ahmed establish an SNQ for claims 2, 4-5, and 7-8 of the '237 patent. Each of these references was previously considered, and the combination presents an SNQ for at least the claimed "*human interface device*," which led to allowance of the claims. *See* Ex. 1002, ¶90.

1. Claim 1: *presenting the external peripheral device to the processing device as a human interface device*

Kaplan uses a transmitter 120 (*e.g.*, a USB dongle) which is physically connected to a USB port of the computer, wherein the transmitter 120 (*e.g.*, the "external peripheral device") initially presents itself to the computing device's operating system as a device from a standard

class of peripheral devices (other than a wireless device), namely a removable disk drive. Ex. 1027, ¶¶46-52, 58-60; Ex. 1002, ¶91. Upon the computing device detecting the transmitter, the operating system can check the contents of non-volatile memory 420 for an "autoplay.inf" file which may be stored on the peripheral device. Ex. 1027, ¶47; Ex. 1002, ¶91. When detected, Kaplan discloses that the "autoplay.inf" file directs the operating system of the computing device to a stored software application which executes the stored application to further install software for use with media transmission. Ex. 1027, ¶¶47-48; Ex. 1002, ¶91.

Similar to Kaplan and the '237 patent, Mardiks relates to presenting a standard USB peripheral device to a computer and, in particular, presents the device as a HID device which allows for the automatic launch of software residing on the peripheral device. Ex. 1002, ¶¶92-95. By presenting the peripheral device as a HID, the peripheral device's functionality works simply by plugging it in and avoids the need for user installation of a special driver. Ex. 1026, ¶¶3-6; Ex. 1001, 25:7-23, 23:7-38; Ex. 1002, ¶¶92-95.

For example, Mardiks' external peripheral device initially presents to the host computing device as a human interface device, namely, a keyboard, to enable the launch of a stored application residing on the USB peripheral device. *See, e.g.*, Ex. 1026, ¶¶5-7, 18-20, 27-30; Ex. 1002, ¶93. Mardiks explains that the "USB standard does not provide the option of automatically launching a program residing on a USB flash drive after the USB flash drive is simply connected to the host. Instead, the host must receive an additional command, which is an added step for the user if he or she must provide the command." Ex. 1026, ¶4.

By presenting itself as a keyboard (HID), the USB peripheral device can provide commands to launch a file in a mass storage peripheral device, where "the host uses its USB

keyboard driver for communications with the USB peripheral device." Ex. 1026, ¶28; Ex. 1002, ¶94. A keyboard is a type of human interface device (HID) class. Ex. 1026, ¶3; Ex. 1002, ¶94.

Mardiks explains that "a stream of emulated keystrokes is sent from the USB peripheral device to the host [and causing] to generate and execute a startup script, as if a user were to manually type the corresponding keystroke on a keyboard." Ex. 1026, ¶30; *see also id.*, ¶¶18-20, 27-30, FIGS. 1A, 2A (both reproduced below); Ex. 1002, ¶95.

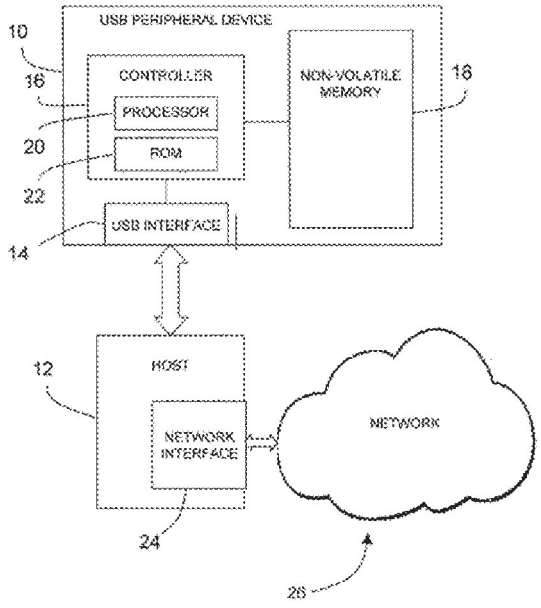


Fig. 1A

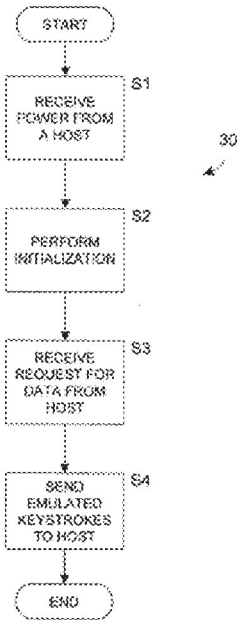


Fig. 2A

Ex. 1026, FIGs. 1A, 2A.

Thus, very similar to Kaplan, Mardiks describes presenting the peripheral device to a host computer from a standard class of devices (mass storage in the case of Kaplan and human interface device in the case of Mardiks). Ex. 1002, ¶96. Both use a similar technique to enable the peripheral device to be a plug-and-play device, whereby the peripheral device's functionality works simply by plugging the device to the host computing device, and the peripheral device can launch an application stored on the peripheral device. Ex. 1002, ¶96. Therefore, a POSITA

would have recognized that the approach in Kaplan could have been substituted for that of Mardiks or utilized in addition to the approach in Kaplan. Ex. 1002, ¶96. A POSITA would have had a reasonable expectation of success in implementing software to present a peripheral device as a human interface device given that such identification was well within the ordinary abilities of a POSITA. Ex. 1002, ¶96. Accordingly, the combination of Kaplan and Mardiks renders obvious "*presenting the external peripheral device to the processing device as a human interface device*."

2. Claim 2: *The method of claim 1, wherein the audio device comprises an audio output adapter device which is configured as a virtual audio device to transfer the audio data from the processing device to the base node via the communications network.*

Claim 1 fails to recite "an audio device" such that it is not clear what audio device is referenced in claim 2. However, as described above, Patent Owner interprets "*the audio device comprises an audio output adapter device*" as "an audio device on the external peripheral device[.]" § III.E.2, *supra*. Kaplan teaches that the external peripheral device includes an *audio device*, such as a "mass storage device" standard USB class. Ex. 1027, ¶¶51–52, 59–60; Ex. 1002, ¶97. Kaplan further teaches that the "mass storage device" class may be ejected and switched to a second mode. Ex. 1027., ¶¶60–61; Ex. 1002, ¶97. The '237 patent teaches that the second mode could be a USB Audio Class (UAC), which "is generally standard on any modern processing devices such as a PC." Ex. 1001, 6:1–21; Ex. 1002, ¶97. Ahmed further discloses a wireless multimedia transmission system similar to that of Kaplan in which a "virtual audio cable (VAC)" is used for capturing audio data for wireless transmission. Ex. 1014, 18:27-19:9; Ex. 1002, ¶97. Accordingly, it would have been obvious to the POSITA that Kaplan's second mode would include a virtual audio cable or "*virtual audio device to transfer the audio data from the processing device to the base node via the communications network,*" *i.e.*, streaming audio data

from a PC through the peripheral device to Kaplan's base node (*e.g.*, receiver 110). *See* Ex. 1002, ¶97.

3. Claim 4: *The method of claim 1, wherein a client application is stored on the external peripheral device which when run on the processing device obtains screen scraped data.*

Kaplan discloses "*a client application is stored on the external peripheral device which when run on the processing 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. *See* Ex. 1002, ¶¶98-99.

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

Kaplan discloses that "*the client application is a portable application.*" Ex. 1027, ¶22; Ex. 1002, ¶100. Kaplan's software is stored on the transmitter 120 and is therefore "*portable*." To the extent that Kaplan's software may not be considered a "*portable application*," portable applications were well known in the art at the time of the alleged invention, as evidenced, for example by Deforche, which 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, ¶100.

5. Claim 7: *The method of claim 1, further comprising time-stamping synchronously a stream of the audio data with a stream of the display data.*

Ahmed discloses synchronously time-stamping audio data and video data:

> Referring to Figure 14, another embodiment of the audio and video synchronization circuit is depicted. The synchronization circuit 1400 at the transmitter end 1401 comprises buffer 1402 having media data, multiplexer 1403 for combining the media data signals, such as graphics, text, audio, and video signals, and a clock 1404 for providing the timestamps to the media content for synchronization. At the receiver end L405 the demultiplexer 1406 using clock 1407 devolves the data stream into the individual media data streams. The timestamps provided by the clocks help synchronize the audio and video at the receiver end. The clock is set at the same frequency as that of receiver. The audio and video, which is demultiplexed, is routed to the speakers 1408 and display device 1409 for rendering. Ex. 1014, 29:6-18, *see also* FIG. 14; Ex. 1002, ¶101.

A POSITA therefore would have found it obvious to implement this, or another well-known synchronization technique, such that the user in a system like that of Kaplan is able to

view video footage with synchronized audio output. Ex. 1002, ¶¶101-102. Such techniques were well-known and well established by the time of the purported inventions and, thus, a POSITA would have had a reasonable expectation success in implementing such conventional techniques. Ex. 1002, ¶101-102.

6. Claim 8: *The method of claim 7, further comprising encoding, optionally encrypting the audio data.*

The '237 patent concedes that a known method 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]." Ex. 1001, 3:12-24 (emphasis added). As such, "*encoding...the audio data*" is admitted prior art. Ex. 1002, ¶103. Furthermore, Ahmed also discloses "*encoding...the audio data.*" *See*, *e.g.*, Ex. 1014, 7:11-15 ("Preferably, the computing device 101 and remote monitor 103 further comprise a processing system on a chip capable of wirelessly transmitting and receiving graphics, audio, text, and video encoded under a plurality of standards"), 22:9-12 ("The block that corresponds to the best checking point is the block of the reference frame, which matches best with the block of the current frame that is to be encoded"), 27:30-32 ("Initially, the receiver receives 1301 a stream of encoded video data and encoded audio data wirelessly"), FIG. 13; Ex. 1002, ¶104.

Thus, a POSITA would have found it obvious to implement such standard encoding techniques, such as from the admitted prior art or from Ahmed, for a variety of reasons, such as to make use of standard wireless protocols and components that utilize such standards to the method of Kaplan. Ex. 1002, ¶105. Further, a POSITA would have a reasonable expectation of success in achieving the claimed invention because it would only have involved the predictable use of known techniques. Ex. 1002, ¶105.

These technical teachings of Kaplan, Mardiks, and Ahmed were not cited, considered or discussed on the record by the examiner during prosecution of the '237 patent or in IPR2024-01437 with respect to claims 2, 4-5 and 7-8, and an examiner would have considered the new technical teachings of Kaplan, Mardiks, and Ahmed important in deciding the patentability of claims 2, 4-5 and 7-8. The new technical teachings of Kaplan, Mardiks, and Ahmed are not cumulative of any technical teachings discussed or suggested during the original prosecution of the '237 patent. Therefore, Kaplan, Mardiks, and Ahmed establish an SNQ with respect to claims 2, 4-5 and 7-8 of the '237 patent. *See* Ex. 1002, ¶106.

B. SNQ No. 2 – The combination of Maeda, Deforche, and Ahmed renders obvious claims 2, 4-5, and 7-8 of the '237 patent under 35 U.S.C. § 103.

The new, non-cumulative, and not previously considered arguments with respect to the combination of Maeda, Deforche and Mardiks, establishes an SNQ for claims 2, 4-5, and 7-8 of the '237 patent. Ex. 1002, ¶107.

1. Claim 1: *presenting the external peripheral device to the processing device as a human interface device*

In addition to Maeda's disclosure discussed above (*see*, *e.g.*, Ex. 1031, ¶¶15-19), Deforche provides additional details on how a wireless modem device can be configured to communicate with its host computer. Ex. 1002, ¶108. Deforche "relates to a wireless modem device connectable to a computer device and a method for operating said wireless modem." Ex. 1030, ¶1. Thus, Deforche is from the same general field of technology as the '237 patent. Ex. 1001, 1:15-20 (stating that it relates to, among other things, "devices for providing connection to a communications network"); Ex. 1002, ¶108. Additionally, Deforche recognizes numerous issues in the prior art, including that "when a wireless modem is connected for the first time to a computer device, installation of an appropriate driver is required before applications running on the computer device can use the functionality of the wireless modem to connect to wireless

networks." Ex. 1030, ¶2. Further, Deforche recognizes that this was inconvenient and undesirable particularly where the user lacked administrator rights or was otherwise restricted from driver installation. Ex. 1031, ¶¶3-6, 28-30; Ex. 1002, ¶108. Deforche also addresses a desire to provide modem functionality in any computer independent of the operating system without leaving a footprint (Zero-Footprint). Ex. 1031, ¶¶28-30; Ex. 1002, ¶108. Thus, Deforche is also directed to solving problems like the '237 patent. *See*, *e.g.*, Ex. 1001, 24:20-45; Ex. 1002, ¶108. Thus, a POSITA would have found it obvious to use the teachings of Deforche to implement Maeda's system of a wireless communications network. Ex. 1002, ¶109.

Deforche's wireless modem device presents itself to the host computer as a human interface device or other generic device. *See*, *e.g.*, Ex. 1030, ¶¶10, 33-36, 43-45, 51-52, claim 2, FIG. 1 (USB interface 7 exposed to a host computer as a human interface device (HID)); Ex. 1002, ¶110. By doing so, Deforche's system avoids the need for a user to install a driver for the peripheral wireless modem device. *See*, *e.g.*, Ex. 1030, ¶¶10, 32-39, 0043-46, 51-52; Ex. 1002, ¶110. Instead, the computer utilizes its given drivers for human interface devices to establish a channel of communication with the wireless device. *Id.*; Ex. 1002, ¶110.

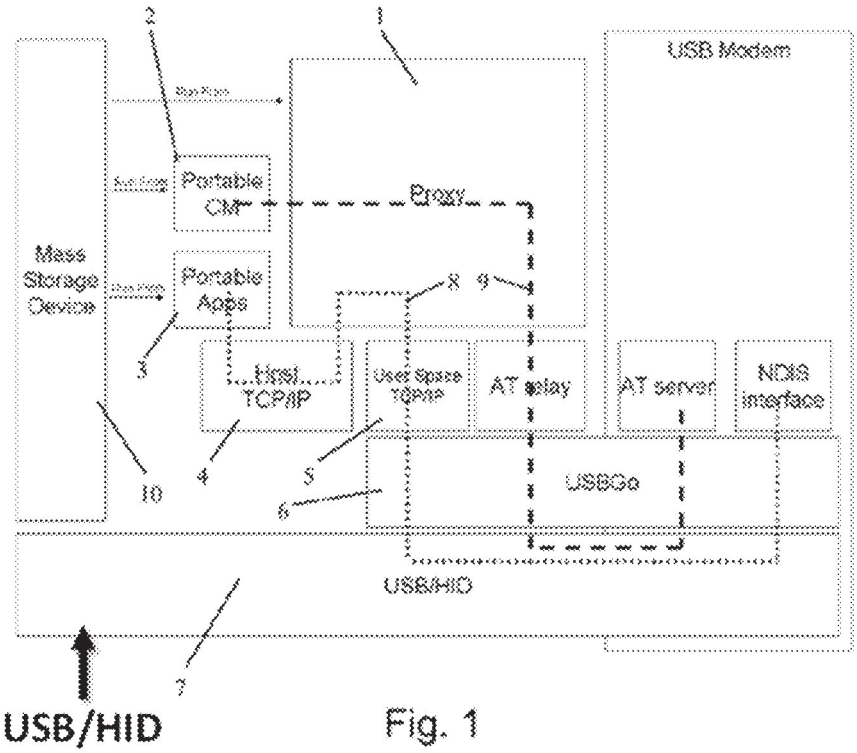


Fig. 1

Ex. 1030, FIG. 1.

A POSITA would have found it obvious to use the teachings of Deforche, as described above, to implement the system of Maeda to avoid the need for a user to install a separate driver for a wireless peripheral device. Ex. 1002, ¶111. Given how known the limitations were in the art, a POSITA would have had a reasonable expectation of success in achieving the claimed combination of Maeda with Deforche. Ex. 1002, ¶¶111. Accordingly, the combination of Maeda and Deforche renders obvious *presenting the external peripheral device to the processing device as a human interface device*. Ex. 1002, ¶111.

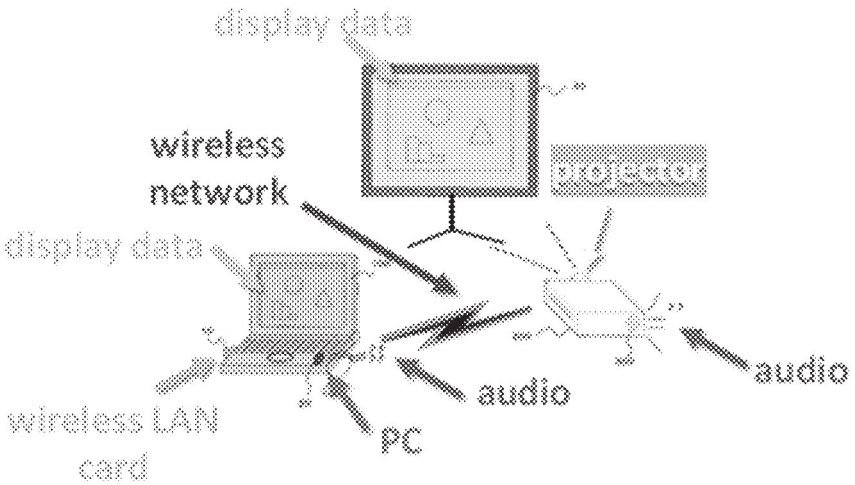
2. <u>Claim 2</u>: *The method of claim 1, wherein the audio device comprises an audio output adapter device which is configured as a virtual audio device to transfer the audio data from the processing device to the base node via the communications network.*

Patent Owner interprets "*the audio device comprises an audio output adapter device*" as "an audio device on the external peripheral device[.]" § III.E.3, *supra*. Deforche teaches "us[ing]

existing USB class drivers (e.g. USB CDC ACM and USB CDC Ethernet)" would include USB audio classes because it discloses using audio devices that "will appear to the dockee [*i.e.*, computer] as a real peripheral." Ex. 1030, ¶54; Ex. 1002, ¶112. The '237 patent teaches there are other well-known classes, including the USB Audio Class (UAC), which "is generally standard on any modern processing devices such as a PC." Ex. 1001, 6:1–2; Ex. 1002, ¶112. Ahmed further discloses a wireless multimedia transmission system similar to that of Maeda in which a "virtual audio cable (VAC)" is used for capturing audio data for wireless transmission. Ex. 1014, 18:27-19:9; Ex. 1002, ¶112. Accordingly, it would have been obvious to the POSITA that Maeda's second mode would include a virtual audio cable or "*virtual audio device to transfer the audio data from the processing device to the base node via the communications network,*" *i.e.*, streaming audio data from a PC through the peripheral device to Maeda's base node (*e.g.*, receiver 110). Ex. 1002, ¶112.

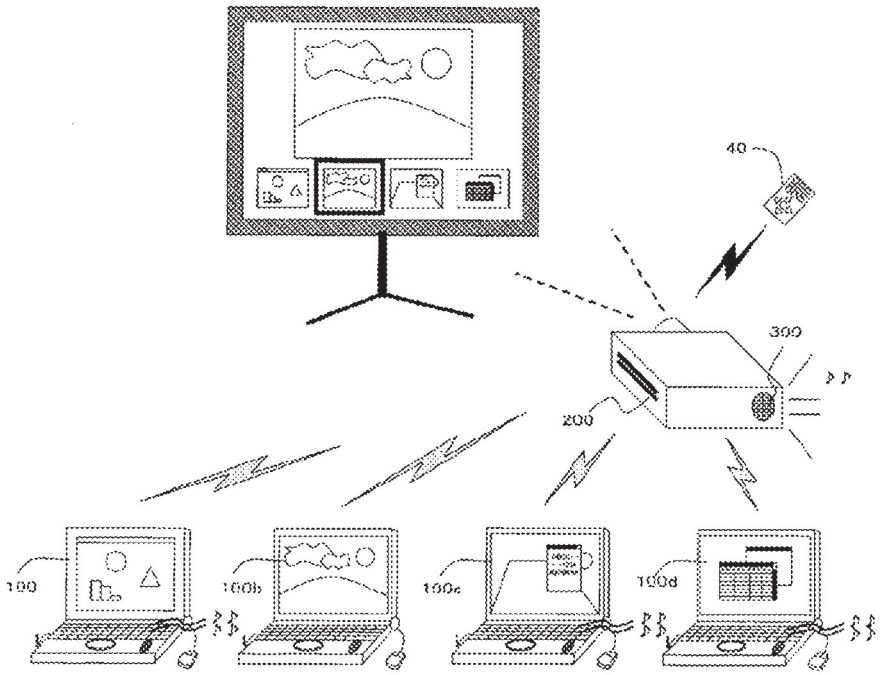
3. Claim 4: The method of claim 1, wherein a client application is stored on the external peripheral device which when run on the processing device obtains screen scraped data.

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.

Deforche renders obvious that the "*client application is stored on the external 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, ¶¶113-114. Therefore, Maeda either alone or in combination with Deforche renders obvious this limitation. Ex. 1002, ¶114.

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

Deforche discloses that it would be beneficial for the client application of Maeda to be a "*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, ¶115. Therefore, a POSITA would be motivated to use a portable application in the method of Maeda using known techniques. Ex. 1002, ¶115.

5. Claim 7: *The method of claim 1, further comprising time-stamping synchronously a stream of the audio data with a stream of the display data.*

At the time of the alleged invention, a POSITA would have recognized and known that the processing time for audio tends to be shorter than for video data. Ex. 1002, ¶¶116-118. Therefore, an independent way to synchronize the audio and video data so that they reflect the original audiovisual content was a known solution. Ex. 1002, ¶¶116-117. For example, Maeda discloses that "[g]enerally, audio has a smaller capacity than images and can therefore be transmitted faster," which may be addressed by a delay in the audio buffer. Ex. 1031, ¶57; Ex. 1002, ¶116. Ahmed discloses synchronously time-stamping audio data and video data. *See, e.g.*, Ex. 1014, 29:6-18 ("Referring to Figure 14, another embodiment of the audio and video synchronization circuit is depicted. The synchronization circuit 1400 at the transmitter end 1401 comprises buffer 1402 having media data, multiplexer 1403 for combining the media data signals, such as graphics, text, audio, and video signals, and a clock 1404 for providing the timestamps to the media content for synchronization. At the receiver end L405 the demultiplexer 1406 using clock 1407 devolves the data stream into the individual media data streams. The timestamps provided by the clocks help synchronize the audio and video at the receiver end. The clock is set at the same frequency as that of receiver. The audio and video, which is demultiplexed, is routed to the speakers 1408 and display device 1409 for rendering."), FIG. 14; Ex. 1002, ¶117.)

A POSITA therefore would have found it obvious to implement this or another well-known synchronization technique as was common and known in the art such that the user in a system like that of Ahmed is able to synchronize its video and audio output streams Ex. 1002, ¶118. A POSITA would have had a reasonable expectation of success in implementing such techniques because the technology was well known in the art to apply synchronous time stamping. Ex. 1002, ¶118.

6. Claim 8: *The method of claim 7, further comprising encoding, optionally encrypting the audio data.*

The '237 patent concedes that a known method 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]." Ex. 1001, 3:12-24 (emphasis added). As such, "*encoding...the audio data*" is admitted prior art. Ex. 1002, ¶119. Furthermore, Ahmed also discloses "*encoding...the audio data.*" *See, e.g.*, Ex. 1014, 7:11-15 ("Preferably, the computing device 101 and remote monitor 103 further comprise a processing system on a chip capable of wirelessly transmitting and receiving graphics, audio, text, and video encoded under a plurality of standards"), 22:9-12 ("The block that corresponds to the best checking point is the block of the reference frame, which matches best with the block of the current frame that is to be encoded"), 27:30-32 ("Initially, the receiver receives 1301 a stream of encoded video data and encoded audio data wirelessly"), FIG. 13; Ex. 1002, ¶120.

Thus, a POSITA would have found it obvious to implement such standard encoding techniques, such as from the admitted prior art or from Ahmed, for a variety of reasons, such as to make use of standard wireless protocols and components that utilize such standards available to the method of Maeda. Ex. 1002, ¶121. Further, a POSITA would have a reasonable

expectation of success in achieving the claimed invention because it would only have involved the predictable use of known techniques. Ex. 1002, ¶121.

These technical teachings of the combination of combination of Maeda, Deforche, and Ahmed were not cited, considered or discussed on the record by the examiner during prosecution of the '237 patent or in IPR2024-01437 with respect to claims 2, 4-5, and 7-8, and an examiner would have considered the new technical teachings of Maeda, Deforche, and Ahmed important in deciding the patentability of claim 2. The new technical teachings of Maeda, Deforche, and Ahmed are not cumulative of any technical teachings discussed or suggested during the original prosecution of the '237 patent. Therefore, the combination of Maeda, Deforche, and Ahmed establishes an SNQ with respect to claims 2, 4-5, and 7-8 of the '237 patent. *See* Ex. 1002, ¶122.

VII. MANNER OF APPLYING THE CLAIMS AS REQUIRED BY 37 C.F.R. § 1.510 (B)(2)

Claims 2, 4-5, and 7-8 depend from claim 1. Therefore, Requester addresses all limitations of claims 2, 4-5, and 7-8, which include claim 1.

A. Ground 1 – The combination of Kaplan, Mardiks, and Ahmed renders obvious claims 2, 4-5 and 7-8.

1. Rationale to Modify Kaplan's System with Mardiks and Ahmed

Kaplan relates to wireless transmission of data/multimedia through a wireless network by using a peripheral device which is physically attached, through a USB port, to a computing device. Ex. 1027, ¶21, FIG. 2; Ex. 1002, ¶123. Kaplan's system and method can remotely display video content, including its respective audio, through the use/method of physically attaching a separate, wireless peripheral device to a port of the computing device. Ex. 1027, ¶¶6-8, 21; Ex. 1002, ¶123. Kaplan's disclosure, however, does not disclose the peripheral device being presented to the computing device as a "human interface device."

Mardiks relates to a method of how to present a USB peripheral device to a computing device upon the peripheral device's connection. Ex. 1026, ¶¶ 6, 8; Ex. 1002, ¶123. Mardiks discloses that a peripheral device presents itself as a human interface device (HID) and is capable of, through its presentation to the computing device as a human interface device (HID), launching an application residing in its memory upon connection to a host computing device automatically without a user's input or direction. Ex. 1026, ¶¶6, 8, 27-30; Ex. 1002, ¶124. It would have, thus, been obvious to combine Kaplan with the teachings of Mardiks because it was a simple application of known techniques to apply Mardiks' presenting the peripheral device as a human interface device to achieve Kaplan's method and system of transmission of audio/video data to a wireless network. Ex. 1002, ¶124. Additionally, the modification would achieve the predictable result to automatically launch a stored application on the peripheral device to launch Kaplan's remote audio/visual data transmission to the wireless network. Ex. 1002, ¶124.

Ahmed discloses an approach to accomplishing audio/visual data transmission using an integrated transceiver 203, which is the same as or similar to Kaplan's transceiver 450. Ex. 1014, 18:26-19:21, *see also* 17:13-16; Ex. 1027, ¶19; Ex. 1002, ¶126. Ahmed explains how to sync the audio and video data streams using time-stamping. Ex. 1014, 29:6-18; *see also* 18:26-19:21, 27:1-27; Ex. 1002, ¶126. Ahmed also explains how a virtual audio cable (VAC) is used for capturing audio data for wireless transmission. Ex. 1014, 18:27-19:9; Ex. 1002, ¶126. It would have been a simple application of a known technique to apply Ahmed's time-stamping-based synchronization in Kaplan's USB transmitter to achieve Kaplan's transmission of audio/video data. Ex. 1002, ¶126. The modification would achieve the predictable result of Kaplan's audio/visual transmission using two separate, yet synchronized, data streams. Ex. 1002, ¶126.

2. Claim 1

a) *A method for connecting a processing device to a communications network, the processing device having a memory, a display, an operating system and communication between processing device and a class of peripheral devices, the method comprising*

Kaplan discloses *a method for connecting processing device* (e.g., computer 220) *to communications network* (e.g., network via a transmitter 120). *See, e.g.*, Ex 1027, ¶¶5-9, 16-18, 23, 57-61, FIGs. 2 (reproduced below), 6; Ex. 1002, ¶¶128-129; *see also* Ex. 1005, ¶¶36-41; Ex. 1006, ¶¶72-80, 81; Ex. 1009[4], ¶¶39-42; Ex. 1033, ¶¶63-70; Ex. 1034, ¶¶14-17. Kaplan's system provides *communication between the processing device and a class of peripheral devices*, which could include devices such as mass storage devices. *See, e.g.*, Ex 1027, ¶¶50-52 ("[D]uring an initial connection, the transmitter 120 may identify itself to the computer 220 as a mass storage device"); Ex. 1002, ¶129. Kaplan recognized the issue in the prior art where setting up and operating 802.11 wireless networks "is a challenging endeavor for many users." Ex. 1027, ¶3; EX. 1002, ¶129. Configuration by the user was difficult in part because the user was required to "set the Service Set Identifier (SSID), password, and/or parameters that enable the various networks elements to communicate." Ex. 1027, ¶18; Ex. 1002, ¶129. To address this, Kaplan's transmitter and receiver are pre-paired so that the settings for connection are pre-set. *Id.*; Ex. 1002, ¶129. Accordingly, the user is provided with a fully functioning communication system when the user first installs the equipment. *Id.*; Ex. 1002, ¶129.

[4] This is the English Translation (Ex. 1009) to JP Patent Application Publication No. 2008-165007 (Ex. 1010). All citations are to the English Translation (Ex. 1009). Ex. 1011 is the corresponding certificate of certified translation.

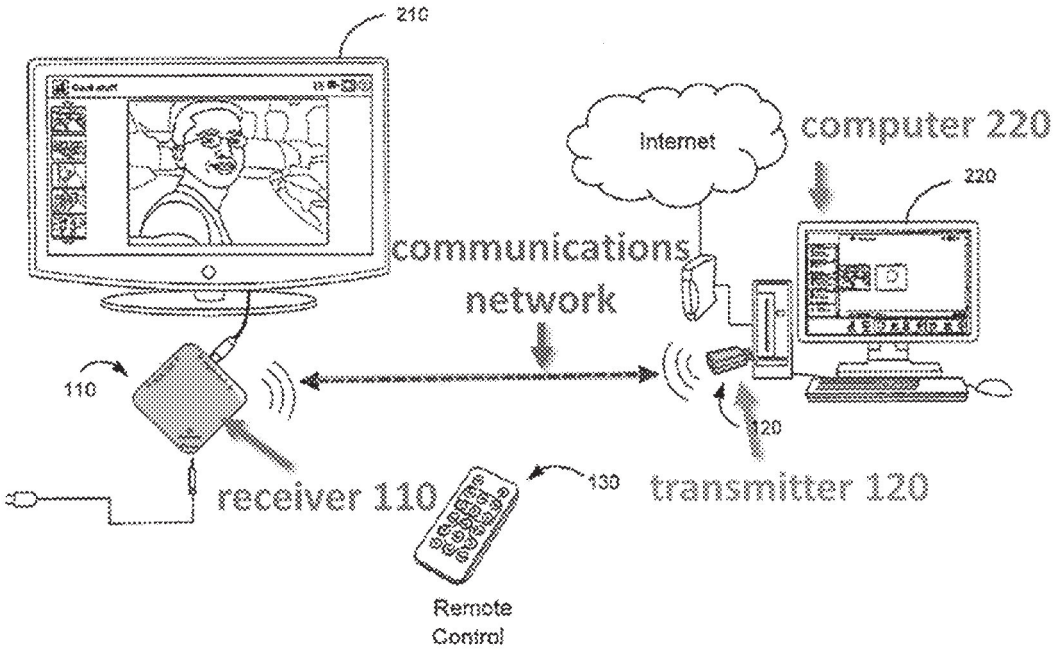


FIG. 2

Ex. 1027, FIG. 2.

Kaplan's *processing device* (*e.g.*, computer 220) includes *a display* (illustrated in Figure 2 above), *a memory*, and *an operating system*, such as Windows®. *See*, *e.g.*, Ex. 1027, ¶¶47-49, 59, FIG. 2; Ex. 1002, ¶130.

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

Kaplan discloses *coupling an external peripheral device* (*e.g.*, "transmitter 120") *physically to a port of the processing device*. *See*, *e.g.*, Ex. 1027, ¶21 ("[T]ransmitter 120 is inserted into the USB port of a computer."), FIG. 2 (reproduced below); Ex. 1002, ¶131; *see also* Ex. 1005, ¶¶54, 55, 62; Ex. 1006, ¶137; Ex. 1009, ¶¶39, 47-48, 66, Ex. 1033, ¶70, Ex. 1034, ¶¶14-17.

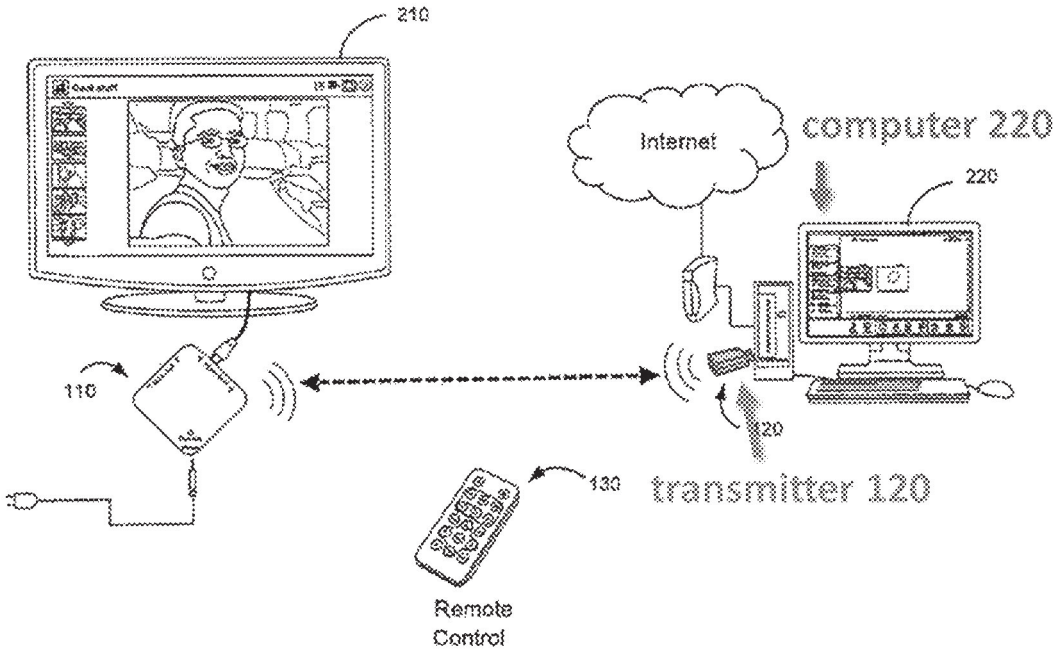


FIG. 2

Ex. 1027, FIG. 2.

Kaplan additionally discloses *the external peripheral device having a transceiver and a connector configured to couple to the port of the processing device*. *See*, *e.g.*, Ex. 1027, ¶¶19 ("[T]he transmitter 120 includes a wireless transceiver 450 that is operable to transmit data from the computer to the receiver 110"), 16-17 ("In a particular embodiment, the transmitter 120 is a dongle including a connector 122 compliant with the Universal Serial Bus (USB) standard and operable to be inserted into a USB port of a computer, for example, a personal computer. As described in greater detail in FIG. 4, the transmitter 120 includes a wireless transceiver 450 that is operable to transmit data from the computer to the receiver 110"), 45, FIGs. 1, 4; Ex. 1002, ¶132. Further, the transmitter 120 "may includ[e] software that is configured to access video footage stored on a computer....and may be uploaded to and installed to the computer.... [wherein] 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." Ex. 1027, ¶22.

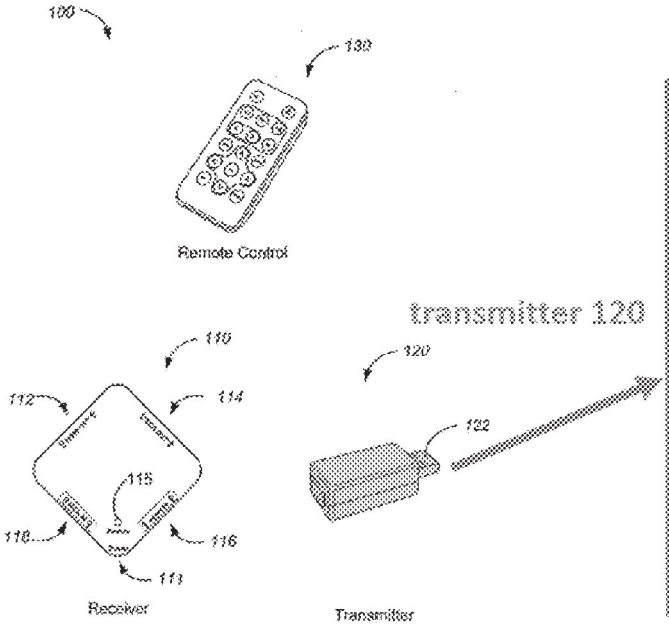


FIG. 1

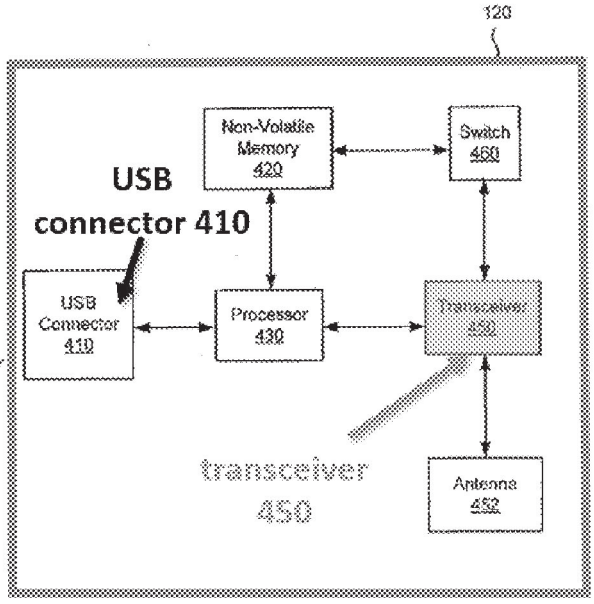


FIG. 4

Ex. 1027, FIGs. 1, 4.

c) ***presenting the external peripheral device to the processing device as a human interface device***

Kaplan uses a transmitter 120 (*e.g.*, a USB dongle) which is physically connected to a USB port of the computer, wherein the transmitter 120 (*e.g.*, the "external peripheral device") initially presents itself to the computing device's operating system as a device from a standard class of peripheral devices (other than a wireless device), namely a removable disk drive. Ex. 1027, ¶¶46-52, 58-60; Ex. 1002, ¶133. Upon the computing device detecting the transmitter, the operating system can check the contents of non-volatile memory 420 for an "autoplay.inf" file which may be stored on the peripheral device. Ex. 1027, ¶47; Ex. 1002, ¶133. When detected, Kaplan discloses that the "autoplay.inf" file directs the operating system of the computing device

to a stored software application which executes the stored application to further install software for use with media transmission. Ex. 1027, ¶¶47-48; Ex. 1002, ¶133.

Similar to Kaplan and the '237 patent, Mardiks relates to presenting a standard USB peripheral device to a computer and, in particular, presents the device as a HID device which allows for the automatic launch of software residing on the peripheral device. Ex. 1002, ¶¶134-137. By presenting the peripheral device as a HID, the peripheral device's functionality works simply by plugging it in and avoids the need for user installation of a special driver. Ex. 1026, ¶¶3-6; Ex. 1001, 25:7-23, 23:7-38; Ex. 1002, ¶¶134-137.

For example, Mardiks' external peripheral device initially presents to the host computing device as a human interface device, namely, a keyboard, to enable the launch of a stored application residing on the USB peripheral device. *See*, *e.g.*, Ex. 1026, ¶¶5-7, 18-20, 27-30; Ex. 1002, ¶136. Mardiks explains that the "USB standard does not provide the option of automatically launching a program residing on a USB flash drive after the USB flash drive is simply connected to the host. Instead, the host must receive an additional command, which is an added step for the user if he or she must provide the command." Ex. 1026, ¶4; Ex. 1002, ¶136.

By presenting itself as a keyboard (HID), the USB peripheral device can provide commands to launch a file in a mass storage peripheral device, where "the host uses its USB keyboard driver for communications with the USB peripheral device." Ex. 1026, ¶28; Ex. 1002, ¶137. A keyboard is a type of human interface device (HID) class. Ex. 1026, ¶3; Ex. 1002, ¶137.

Mardiks explains that "a stream of emulated keystrokes is sent from the USB peripheral device to the host [and causing] to generate and execute a startup script, as if a user were to manually type the corresponding keystroke on a keyboard." Ex. 1026, ¶30; *see also id.*, ¶¶18-20, 27-30, FIGS. 1A, 2A (both reproduced below); Ex. 1002, ¶138.

Ex. 1026, FIGs. 1A, 2A.

Thus, very similar to Kaplan, Mardiks describes presenting the peripheral device to a host computer from a standard class of devices (mass storage in the case of Kaplan and human interface device in the case of Mardiks). Ex. 1002, ¶99. Both use a similar technique to enable the peripheral device to be a plug-and-play device, whereby the peripheral device's functionality works simply by plugging the device to the host computing device, and the peripheral device can launch an application stored on the peripheral device. Ex. 1002, ¶139. Therefore, a POSITA would have recognized that the approach in Kaplan could have been substituted for that of Mardiks or utilized in addition to the approach in Kaplan. Ex. 1002, ¶139. A POSITA would have had a reasonable expectation of success in implementing software to present a peripheral device as a human interface device given that such identification was well within the ordinary abilities of a POSITA. Ex. 1002, ¶¶140-141. Accordingly, the combination of Kaplan and Mardiks renders obvious "*presenting the external peripheral device to the processing device as a human interface device*."

d) **b) *communicating at least one of audio data and display data from the processing device to the external peripheral device via the human interface device***

Kaplan discloses *communicating at least one of audio data and display data from the processing device to the external peripheral device*. *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 ("[T]he 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. 1002, ¶142; *see also* Ex. 1034, ¶¶90, 93.

As discussed above (*see* limitation 1(b)), the combined teachings of Kaplan and Mardiks discloses that the audio data and display data may be communicated to the transmitter 120 through the peripheral device, which is presented to the computing device as a human interface device and, thus, is sent *via the human interface device*. Ex. 1002, ¶143.

e) c) *reading the audio data from the port*

Kaplan's transmitter 120 is connected to a USB port and data (which may include audio data) is "transmitted from the computer 220 through the transmitter 120." Ex. 1027, ¶20; Ex. 1002, ¶144. A POSITA would have understood the transmitter 120 is read audio data from the USB port of the computer 220 (which then may be processed) before it can be transmitted by the transceiver 450, such that Kaplan discloses or at least suggests *reading the audio data from the port*. *See*, *e.g.*, Ex. 1027, ¶17 ("[T]he data may include video and audio data"), 0027 (explaining the transmitter may perform at least part of the processing of the data), 28 ("[T]he 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"), FIGs. 1, 4; Ex. 1002, ¶144.

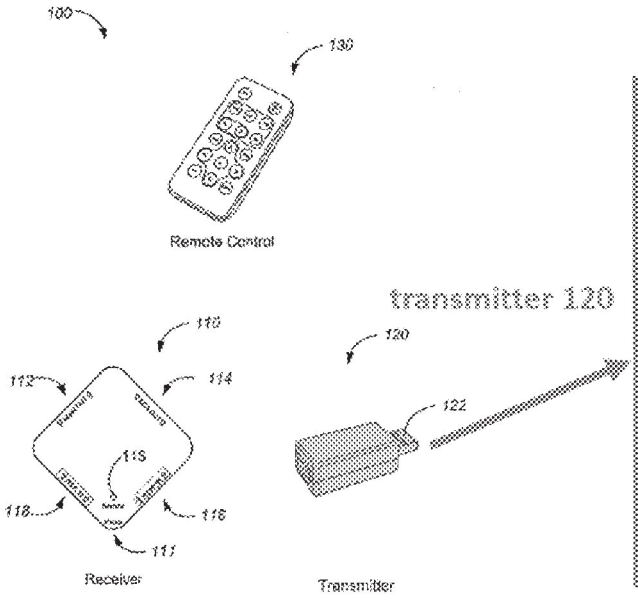


FIG. 1

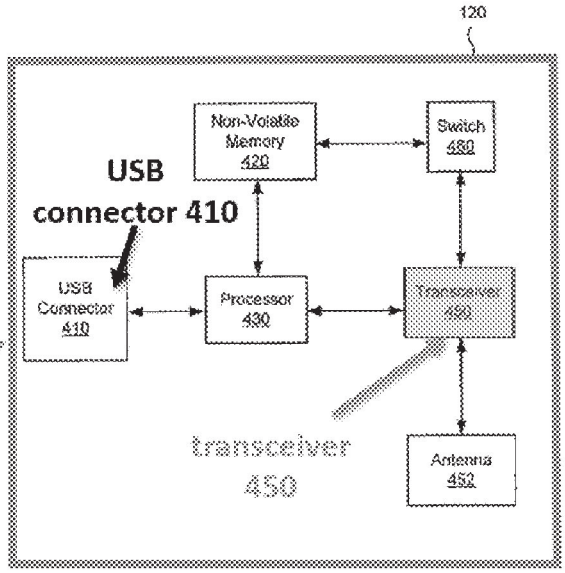


FIG. 4

Ex. 1027, FIGs. 1, 4.

f) *d) connecting the processing device to a communications network via the transceiver*

Kaplan discloses *connecting the processing device* (*e.g.*, computer 220) *to a communications network* (*e.g.*, the two-way communications network) *via the transceiver* (*e.g.*, transceiver 450 of the transmitter 120). *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, ¶145. Kaplan discloses that its transmitter 120 is pre-paired with the receiver 110 to form the communications network to which the computer 220 is connected. *See*, *e.g.*, Ex. 1027, ¶¶18 ("[T]he receiver 110 and the transmitter 120 are pre-paired during the manufacturing process.... As an example, in a conventional 802.11-based network, a user needs to set the Service Set Identifier (SSID), 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.'"), 53, 54; Ex. 1002, ¶145; *see also* Ex. 1005, ¶¶35, 39-42, 50-57, 61-62; Ex. 1009, ¶¶40-41, 65, 68, 90, 165-167; Ex. 1033 ¶70; Ex. 1034 ¶¶14-15.

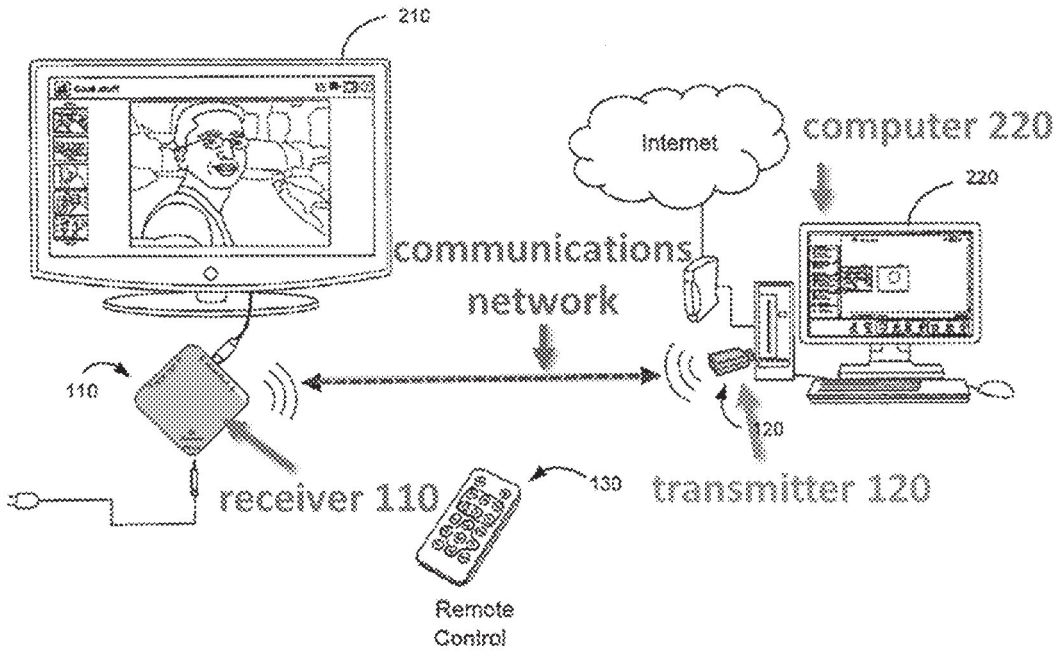


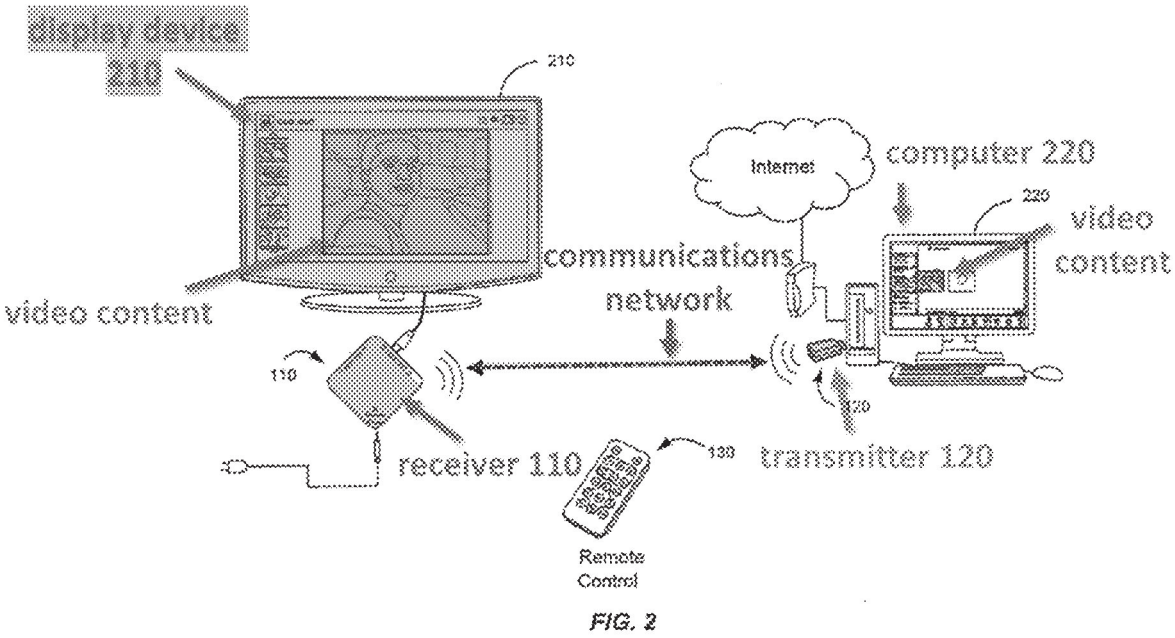
FIG. 2

Ex. 1027, FIG. 2.

g) ***e) display data and audio data being routed between the processing device and the communication network via the transceiver and further to a base node.***

Kaplan *display data and audio data being routed between the processing device* (*e.g.*, computer 220) *and the communications network via transceiver* (*e.g.*, transceiver 450 of the transmitter 120) *and further to a base node* (*e.g.*, receiver 110), whereafter the display and video data is presented as video content on the display device 210. *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, ¶146.



Ex. 1027, FIG. 2.

3. Claim 2

a) ***The method of claim 1, wherein the audio device comprises an audio output adapter device which is configured as a virtual audio device to transfer the audio data from the processing device to the base node via the communications network.***

Patent Owner interprets "*the audio device comprises an audio output adapter device*" as "an audio device on the external peripheral device[.]" § V.E.3, *supra*. Kaplan teaches that the external peripheral device includes a device, such as a "mass storage device" standard USB class. Ex. 1027, ¶¶51–52, 59–60. Kaplan further teaches that the "mass storage device" class may be ejected and switched to a second mode. *Id.*, ¶¶60–61. The '237 patent teaches that the second mode could be a USB Audio Class (UAC), which "is generally standard on any modern

processing devices such as a PC." Ex. 1001, 6:1–2. Ahmed further discloses a wireless multimedia transmission system similar to that of Kaplan in which a "virtual audio cable (VAC)" is used for capturing audio data for wireless transmission. Ex. 1014, 18:27-19:9. Accordingly, it would have been obvious to the POSITA that Kaplan's second mode would include a virtual audio cable or "*virtual audio device to transfer the audio data from the processing device to the base node via the communications network,*" *i.e.*, streaming audio data from a PC through the peripheral device to Kaplan's base node (*e.g.*, receiver 110). Ahmed's ""virtual audio cable" is the same as a "*virtual audio device*" because both are software-based components that mimic the functionality of a physical audio device, like a sound card, without requiring any actual hardware. Ex, 1002, ¶¶147-148.

4. Claim 4

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

Kaplan discloses "*a client application is stored on the external peripheral device which when run on the processing 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, ¶¶149-150.

5. Claim 5

a) *The method of claim 4, 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*." To the extent that Kaplan's software may not be considered a "*portable application*," portable applications were well known in the art at the time of the alleged invention, as evidenced, for example by Deforche, which 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, ¶151.

6. Claim 7

a) *The method of claim 1, further comprising time-stamping synchronously a stream of the audio data with a stream of the display data.*

Ahmed discloses synchronously time-stamping audio data and video data:

> Referring to Figure 14, another embodiment of the audio and video synchronization circuit is depicted. The synchronization circuit 1400 at the transmitter end 1401 comprises buffer 1402 having media data, multiplexer 1403 for combining the media data signals, such as graphics, text, audio, and video signals, and a clock 1404 for providing the timestamps to the media content for synchronization. At the receiver end L405 the demultiplexer 1406 using clock 1407 devolves the data stream into the individual media data streams. The timestamps provided by the clocks help synchronize the audio and video at the receiver end. The clock is set at the same frequency as that of receiver. The audio and video, which is demultiplexed, is routed to the speakers 1408 and display device 1409 for rendering. Ex. 1014, 29:6-18, *see also* FIG. 14; Ex. 1002, ¶152.

A POSITA therefore would have found it obvious to implement this, or another well-known synchronization technique, such that the user in a system like that of Kaplan is able to view video footage with synchronized audio output. Ex. 1002, ¶153. Such techniques were well-known and well established by the time of the purported inventions and, thus, a POSITA would have had a reasonable expectation success in implementing such conventional techniques. Ex. 1002, ¶153.

7. Claim 8

a) *The method of claim 7, further comprising encoding, optionally encrypting the audio data.*

The '237 patent concedes that a known method 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]." Ex. 1001, 3:12-24 (emphasis added). As such, "*encoding…the audio data*" is admitted prior art. Furthermore, Ahmed also discloses "*encoding…the audio data.*" *See*, *e.g.*, Ex. 1014, 7:11-15 ("Preferably, the computing device 101 and remote monitor 103 further comprise a processing system on a chip capable of wirelessly transmitting and receiving graphics, audio, text, and video encoded under a plurality of

standards"), 22:9-12 ("The block that corresponds to the best checking point is the block of the reference frame, which matches best with the block of the current frame that is to be encoded"), 27:30-32 ("Initially, the receiver receives 1301 a stream of encoded video data and encoded audio data wirelessly"), FIG. 13; Ex. 1002, ¶¶154-155.

Thus, a POSITA would have found it obvious to implement such standard encoding techniques, such as from the admitted prior art or from Ahmed, for a variety of reasons, such as to make use of standard wireless protocols and components that utilize such standards. Ex. 1002, ¶156. Further, a POSITA would have a reasonable expectation of success in achieving the claimed invention because it would only have involved the predictable use of known techniques. Ex. 1002, ¶156.

B. Ground 2 – The combination of Maeda, Deforche, and Ahmed renders obvious claims 2, 4-5, and 7-8.

1. Rationale to Modify Maeda's System with Deforche and Ahmed

Maeda and Deforche each relate to the wireless transmission of data/multimedia through a wireless network. Ex. 1031, ¶17; Ex. 1030, abstract; Ex. 1002, ¶129. Maeda's system and method can remotely display video and audio content from a personal computing device (PC) onto a separate projector and screen. Ex. 1031, ¶17; Ex. 1002, ¶129. To do so, the system uses the PC as an image generation device which, thereafter, transmits the video and audio data to the projector via a LAN card physically attached to the PC and which connects to a wireless local area network (LAN). Ex. 1031, ¶¶15, 17; Ex. 1002, ¶129. Maeda's disclosure, however, does not discuss presenting a peripheral device to the processing device as a "human interface device."

Deforche uses a peripheral device and presents it to a processing device as a human interface device (HID). Ex. 1030, ¶¶9-11, 34, FIG. 1; Ex. 1002, ¶157. From Deforche's recognition of problems in the art, Deforche discloses a method of connecting a host computing

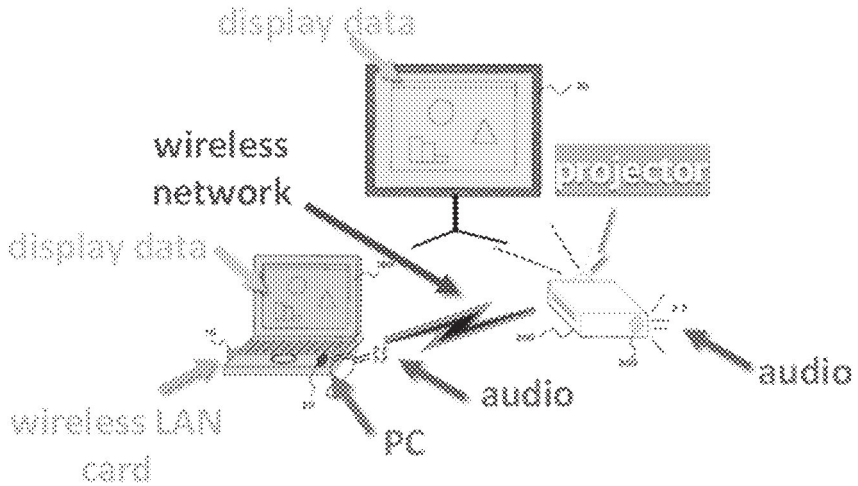
device to a wireless communication network "without requiring installation of a specific driver" or applications, for example, by "setting up, by means of a pre-installed generic driver of an operating system on the computer device, a modem/host communication interface [] for communication between the wireless modem device and the computer device." Ex. 1030, abstract, ¶10; *see also* Ex. 1031, ¶¶2-6, 28-30, abstract; Ex. 1002, ¶158. It would have, thus, been obvious to combine Deforche with the teachings of Maeda because it was a simple application of known techniques to apply Deforche's presenting the peripheral device as a human interface device to achieve Maeda's method and system of transmission of audio/video data. Ex. 1002, ¶158. Additionally, the modification of Maeda with Deforche would achieve the predictable result of transmitting audio/visual data through a peripheral device attached to the computing device and presented as a human interface device, and on to a wireless network, without user installation or configuration of a separate driver or settings. Ex. 1002, ¶158.

Ahmed discloses an approach to accomplishing audio/visual data transmission using an integrated transceiver 203, which is the same as or similar to Maeda's wireless LAN card 10. Ex. 1014, 18:26-19:21, *see also* 17:13-16; Ex. 1031, ¶17; Ex. 1002, ¶159. Ahmed explains how to sync the audio and video data streams using time-stamping. Ex. 1014, 29:6-18; *see also* 18:26-19:21, 27:1-27; Ex. 1002, ¶159. Ahmed also explains how a virtual audio cable (VAC) is used for capturing audio data for wireless transmission. Ex. 1014, 18:27-19:9. It would have been a simple application of a known technique to apply Ahmed's time-stamping-based synchronization in Maeda's wireless LAN card 10 to achieve Maeda's transmission of audio/video data. Ex. 1002, ¶159. The modification would achieve the predictable result of Maeda's audio/visual transmission using two separate, yet synchronized, data streams. Ex. 1002, ¶159.

2. Claim 1

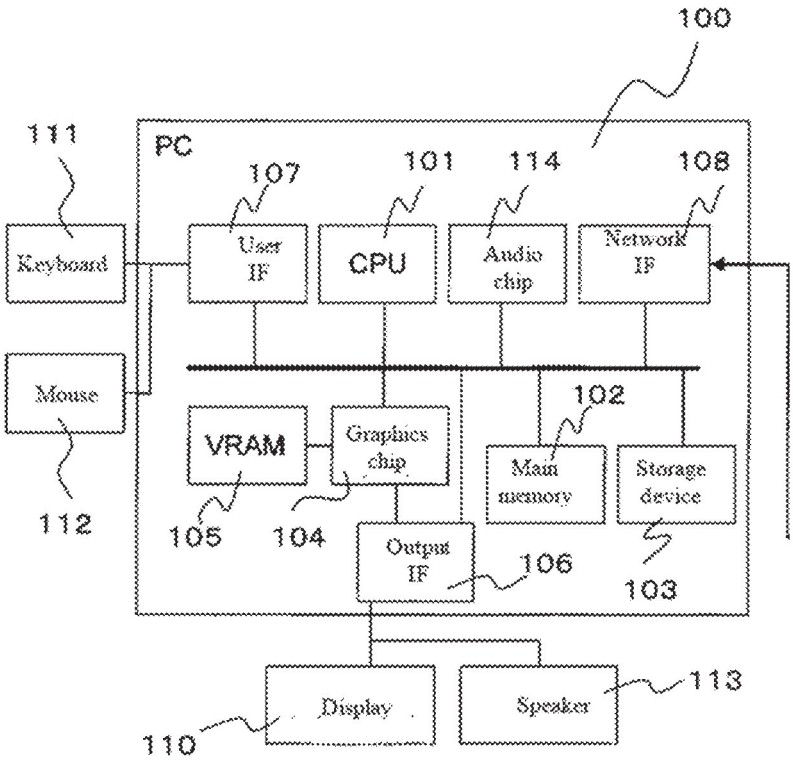
a) *A method for connecting a processing device to a communications network, the processing device having a memory, a display, an operating system and communication between processing device and a class of peripheral devices, the method comprising:*

To the extent limiting, the combination of Maeda and Deforche disclose this limitation. *See*, *e.g.*, Ex. 1002, ¶¶160-162. For instance, Maeda discloses *a method for connecting a processing device* (*e.g.*, personal computer (PC 100)) *to a communications network*. *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 ("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 (e.g., a 'peripheral device') containing a wireless LAN chip is attached to PC 100, thereby transmitting image signals and audio signals to projector 200 via the wireless LA."), 19, 76; *see also id.*, FIG. 1; Ex. 1002, ¶162; *see also* Ex. 1005, ¶¶36-41; Ex. 1006, ¶¶72-80, 81; Ex. 1009, ¶¶39-42; Ex. 1033, ¶¶63, 70; Ex. 1034, ¶¶14-17.



Ex. 1031, FIG. 1.

Maeda discloses *the processing device* (*e.g.*, PC 100) *having a memory* (*e.g.*, main memory 102 and storage device 103), *a display* (*e.g.*, display 110). *See*, *e.g.*, Ex. 1031, ¶19, FIG. 2 (reproduced below); Ex. 1002, ¶163.



Ex. 1031, FIG. 2 (excerpted).

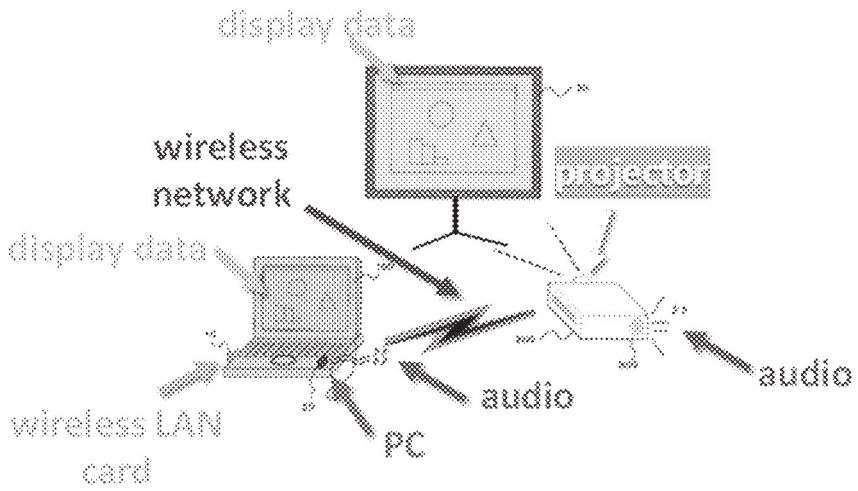
A POSITA would recognize that Maeda's PC 100 includes *an operating system* because it was fundamental software to manage components of the PC. *See*, *e.g.*, Ex. 1031 (FIG. 11 illustrating a windowed operating system); *see also* Ex. 1058, ¶125; Ex. 1002, ¶164. Maeda's system also discloses numerous 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, ¶164. A POSITA would have recognized that the operating system of Maeda was used to manage such components (Windows®, Macintosh OS, Linux, etc.), including *communication between processing device and a class of peripheral devices*, such as human interface devices, as was known in the art. *See*, *e.g.*, Ex. 1030, ¶¶9-12; *see also* Ex. 1027, ¶47; Ex. 1026, ¶¶1-3; Ex. 1002, ¶164.

Moreover, Deforche discloses that a computer has "at least one pre-installed generic driver providing a generic communication protocol (7) for communication between the host computer device and a standard class of computer peripheral devices." Ex. 1030, abstract; Ex. 1002, ¶165.

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

Maeda-Deforche discloses *coupling an external peripheral device* (*e.g.*, wireless LAN (Local Area Network) card 10) *physically to a port of the processing device* (*e.g.*, by physically attaching the LAN card 10 to PC 100). *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"), FIG. 1 (reproduced below); Ex. 1002, ¶166; *see also* Ex. 1005, ¶¶54, 55, 62; Ex. 1006, ¶137; Ex. 1009, ¶¶39, 47-48, 66, Ex. 1033, ¶70, Ex. 1034, ¶¶14-17). Further, PC 100 includes a network interface, network IF 18 for its network connection. *See* Ex. 1031, ¶19; Ex. 1002, ¶166.



Ex. 1031, FIG. 1.

A POSITA would recognize that Maeda's LAN card 10 would contain *transceiver*, such as its a wireless LAN chip, for its ability to send and receive the video and audio data to and from PC 100. *See*, *e.g.*, Ex. 1031, ¶¶17, 53-54; Ex. 1059, ¶¶5-6 (explaining that wireless LAN cards (which were also referred to as wireless PC card and wireless network adapters) contain transceivers for wireless communication); Ex. 1022, FIG. 2 (illustrating WLAN adapter 5 with a WLAN interface 55, indicative of a transceiver); Ex. 1024, ¶16 ("transmission-reception device 3 connected to the input-output port 10 of a unit of electronic equipment 1 is comprised of a control circuit 30, an encryption-decryption module 31, a wireless transceiver module 32, and a communications plug 33"), FIG. 3; Ex. 1007, ¶¶18-21, 30 ("The receiver 124 may include a receiver of the same type as the transmitter, and may be integrated as a transceiver."), FIG. 1 (illustrating USB flash drive 100 with transmitter 122 and receiver 124, indicative of a transceiver), 47; Ex. 1060, 1:64-2:3 ("The wireless communication system includes a dongle and a transceiver. The dongle has an electrical connector and an antenna. The transceiver is electrically coupled to a central processor and the dongle."), 3:42-64, FIG. 1; *see also* Ex. 1027, ¶¶17, 45; Ex. 1002, ¶167.

Deforche's wireless modem device is "a computer peripheral device which has an electronic interface for connection to a complementary electronic interface of a computer device (host) and which comprises electronic components for establishing communication between said computer device to which it is connected and a remote device over a wireless communication network." Ex. 1030, ¶6. Deforche's wireless modem device communicates through a wireless LAN (WLAN). Ex. 1030, ¶8; Ex. 1002, ¶168. Deforche discloses that its electronic interface of the wireless modem device can be a USB interface that couples via a standard connector to a port of the host computer. *See*, *e.g.*, Ex. 1030, ¶7; Ex. 1002, ¶168. As illustrated in Figure 2, the USB modem includes a radio interface (IF), which is indicative of a transceiver. *See* Ex. 1030, Abstract, ¶¶6-8, 34 (describing transmitting and receiving data from the network); Ex. 1002, ¶168. Further, Deforche discloses that "software code portions are stored on the wireless modem device...which are configured for performing one or more of the above-mentioned steps, *i.e.*, the use of a pre-installed generic driver." Ex. 1030, ¶17; *see also*, Claim 9; Ex. 1002, ¶168.

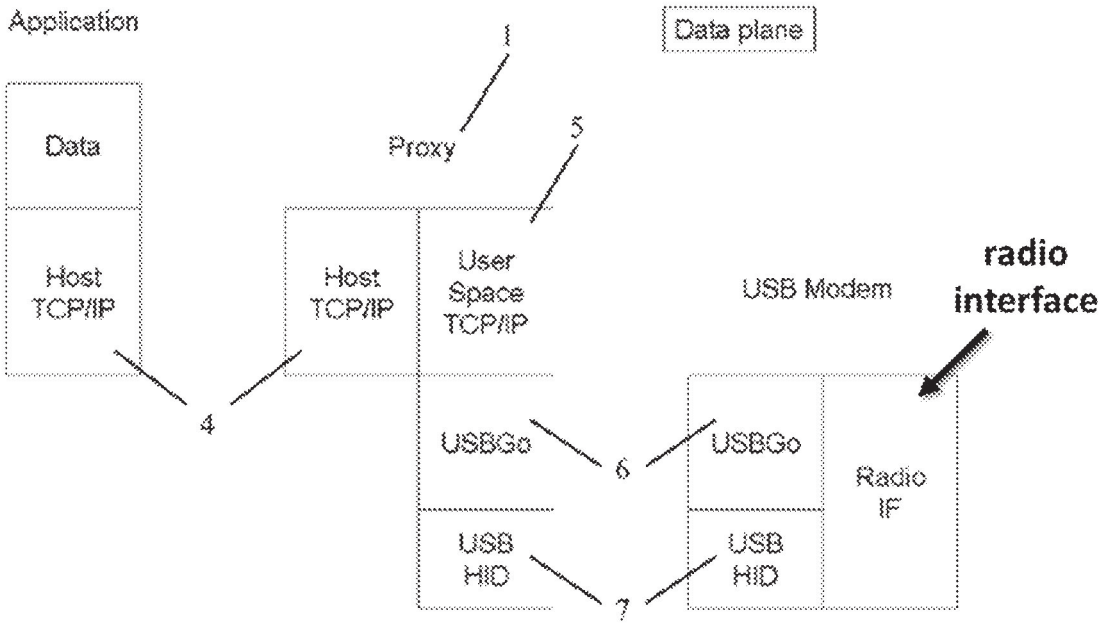


Figure 2

Ex. 1030, FIG. 2.

A POSITA would have found it obvious to include *a connector configured to couple to the port of the processing device* (*e.g.*, to connect a port in a wireless LAN card or similar wireless modem device to wirelessly transmit and receive data) because it was conventional in the art at the time of invention. *See*, *e.g.*, Ex. 1059, ¶¶1-6; Ex. 1022, FIG. 2; Ex. 1024, ¶16, FIG. 3; Ex. 1007, ¶¶18-21, 30, FIG. 1, 47; Ex. 1060, 1:64-2:3, 3:42-64, FIG. 1; Ex. 1027, ¶¶17, 45; Ex. 1002, ¶169. Further, a POSITA would have had a reasonable expectation of success in implementing such well-known, routine, and predictable technology. Ex. 1002, ¶169.

c) *presenting the external peripheral device to the processing device as a human interface device*

In addition to Maeda's disclosure discussed above (*see*, *e.g.*, Ex. 1031, ¶¶15-19), Deforche provides additional details on how a wireless modem device can be configured to communicate with its host computer. Ex. 1002, ¶170. Deforche "relates to a wireless modem device connectable to a computer device and a method for operating said wireless modem." Ex. 1031, ¶1. Thus, Deforche is from the same general field of technology as the '237 patent. Ex. 1001, 1:15-20 (stating that it relates to, among other things, "devices for providing connection to a communications network"); Ex. 1002, ¶170) Additionally, Deforche recognizes numerous issues in the prior art, including that "when a wireless modem is connected for the first time to a computer device, installation of an appropriate driver is required before applications running on the computer device can use the functionality of the wireless modem to connect to wireless networks." Ex. 1031, ¶2. Further, Deforche recognizes that this was inconvenient and undesirable particularly where the user lacked administrator rights or was otherwise restricted from driver installation. Ex. 1031, ¶¶3-6, 28-30; Ex. 1002, ¶170. Deforche also addresses a desire to provide modem functionality in any computer independent of the operating system

without leaving a footprint (Zero-Footprint). Ex. 1031, ¶¶28-30; Ex. 1002, ¶170. Thus, Deforche is also directed to solving problems like the '237 patent. *See*, *e.g.*, Ex. 1001, 24:20-45; Ex. 1002, ¶170. Thus, a POSITA would have found it obvious to use the teachings of Deforche to implement Maeda's system of a wireless communications network. Ex. 1002, ¶171.

Deforche discloses *presenting the external peripheral device* (*e.g.*, wireless modem device) *to the processing device* (*e.g.*, the host computer) *as a human interface device* or other generic device. *See*, *e.g.*, Ex. 1030, ¶¶10, 33-36, 43-45, 51-52, claim 2, FIG. 1 (USB interface 7 exposed to a host computer as a human interface device (HID)); Ex. 1002, ¶172. By doing so, Deforche's system avoids the need for a user to install a driver for the peripheral wireless modem device. *See*, *e.g.*, Ex. 1030, ¶¶10, 32-39, 0043-46, 51-52; Ex. 1002, ¶173. Instead, the computer utilizes its given drivers for human interface devices to establish a channel of communication with the wireless device. *Id.*; Ex. 1002, ¶173.

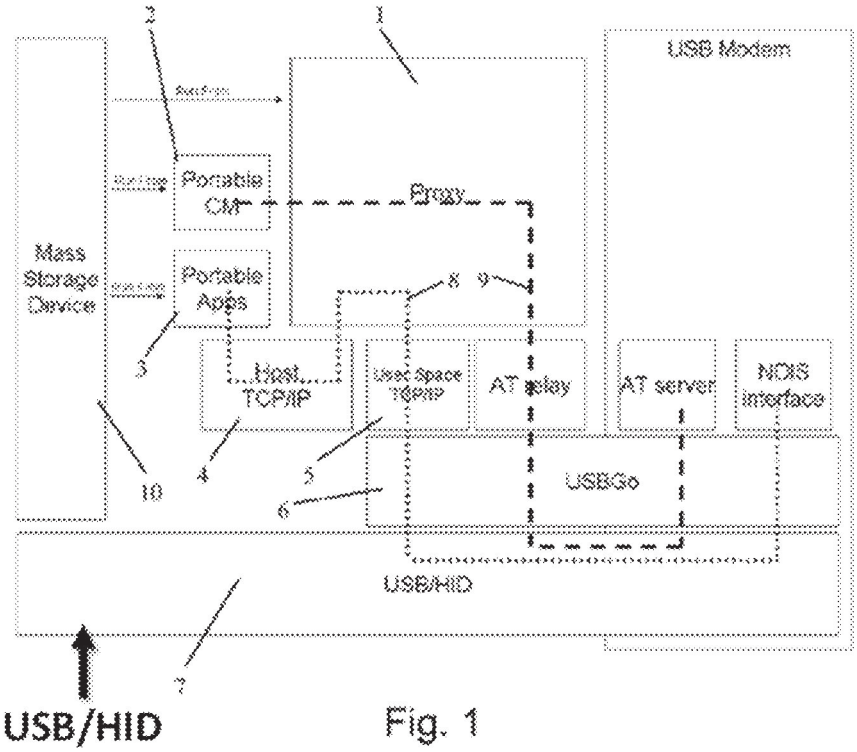


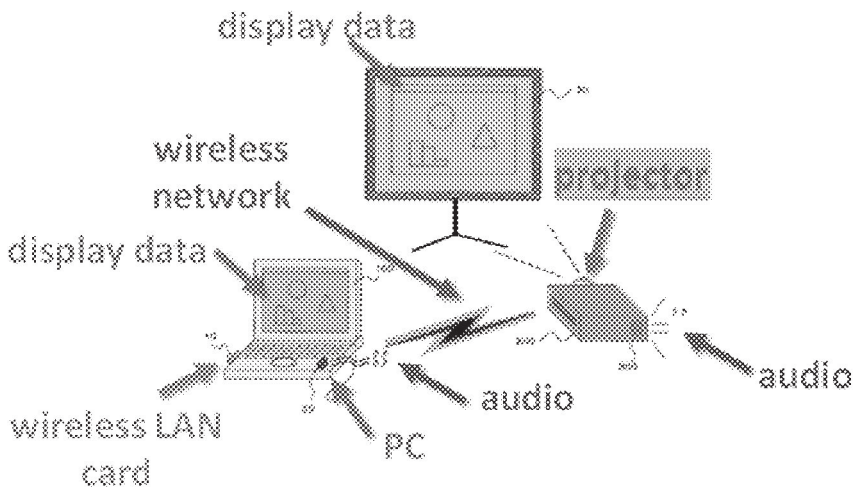
Fig. 1

Ex. 1030, FIG. 1.

A POSITA would have found it obvious to use the teachings of Deforche, as described above, to implement the system of Maeda to avoid the need for a user to install a separate driver for a wireless peripheral device. Ex. 1002, ¶174. Given how known the limitations were in the art, a POSITA would have had a reasonable expectation of success in achieving the claimed combination of Maeda with Deforche. Ex. 1002, ¶¶175. Accordingly, the combination of Maeda and Deforche renders obvious "*presenting the external peripheral device to the processing device as a human interface device*." Ex. 1002, ¶ 175.

d) *b) communicating at least one of audio data and display data from the processing device to the external peripheral device via the human interface device*

Maeda discloses *communicating at least one of audio data and display data from the processing device* (*e.g.*, PC 100) *to the external peripheral device* (*e.g.*, wireless LAN card 10) via network IF [interface] 108. *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, ¶176; *see also* Ex. 1034, ¶¶90, 93. As described above (*see* limitation 1(b)), the wireless LAN card/wireless modem device may be presented as a human interface device (*e.g.*, as suggested by Deforche), such that the audio and display data may be said to be communicated *via the human interface device*. *See*, *e.g.*, Ex. 1030, ¶¶32-39, 52; Ex. 1002, ¶176.



Ex. 1031, FIG. 1.

e) *c) reading the audio data from the port*

A POSITA would recognize that Maeda discloses *reading the audio data from the port* (*e.g.*, from the network IF 108 of the PC 100). *See*, *e.g.*, Ex. 1031, ¶¶15, 17, 19; Ex. 1002, ¶177. Similarly, as discussed for limitation 1(a) above, for the wireless LAN card 10 to transmit audio data to the wireless LAN, the data is read from the PC's port. Ex. 1002, ¶177. Moreover, Maeda, as modified by Deforche, suggests reading all data from a port/interface on the host PC to, for example, a wireless USB modem device. *See*, *e.g.*, Ex. 1030, ¶¶34-39; Ex. 1002, ¶¶177.

f) *d) connecting the processing device to a communications network via the transceiver*

Maeda discloses *connecting the processing device* (*e.g.*, the PC 100) *to a communications network via the transceiver* (*e.g.*, the wireless LAN chip of wireless LAN card 100). *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, ¶178; *see also* Ex. 1005, ¶¶35, 39-42, 50-57, 61-62; Ex. 1009, ¶¶40-41, 65, 68, 90, 165-167; Ex. 1033 ¶70; Ex. 1034 ¶¶14-15. As described above (*see* limitation 1(a)), this

connection may be achieved through the wireless LAN card's transceiver chip, or other well-known transceiver that enables two-way communication. Ex. 1002, ¶178.

g) ***e) display data and audio data being routed between the processing device and the communication network via the transceiver and further to a base node.***

Maeda discloses *display data and audio data being routed between the processing device* (e.g., PC 100) *and the communication network via the transceiver* (*e.g.*, the wireless LAN chip of wireless LAN card 100) *and further to a base node* (*e.g.*, projector 200). *See*, *e.g.*, Ex. 1031, ¶17 ("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. 1002, ¶179. As described above (*see* limitations 1(a), 1(c), and 1(e)), data routing is achieved through the wireless LAN card's chip transceiver, or other well-known transceiver, that enables two-way communication. Ex. 1002, ¶179.

3. Claim 2

a) ***The method of claim 1, wherein the audio device comprises an audio output adapter device which is configured as a virtual audio device to transfer the audio data from the processing device to the base node via the communications network.***

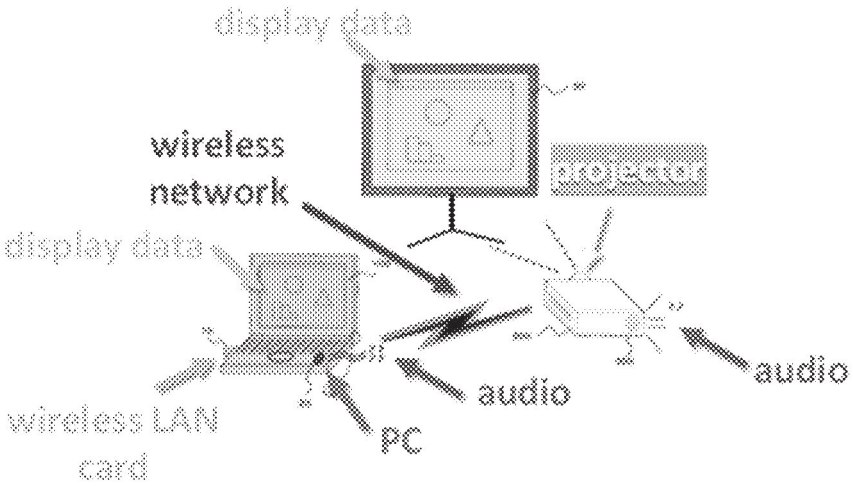
Patent Owner interprets "*the audio device comprises an audio output adapter device*" as "an audio device on the external peripheral device[.]" § V.E.3, *supra*. Deforche teaches "us[ing] existing USB class drivers (e.g. USB CDC ACM and USB CDC Ethernet)" would include USB audio classes because it discloses using audio devices that "will appear to the dockee [*i.e.*,

computer] as a real peripheral." Ex. 1030, ¶54. The '237 patent teaches there are other well-known classes, including the USB Audio Class (UAC), which "is generally standard on any modern processing devices such as a PC." Ex. 1001, 6:1–2. Ahmed further discloses a wireless multimedia transmission system similar to that of Maeda in which a "virtual audio cable (VAC)" is used for capturing audio data for wireless transmission. Ex. 1014, 18:27-19:9. Accordingly, it would have been obvious to the POSITA that Maeda's second mode would include a virtual audio cable or "*virtual audio device to transfer the audio data from the processing device to the base node via the communications network,*" *i.e.*, streaming audio data from a PC through the peripheral device to Maeda's base node (*e.g.*, receiver 110). Ex. 1002, ¶180-181.

4. Claim 4

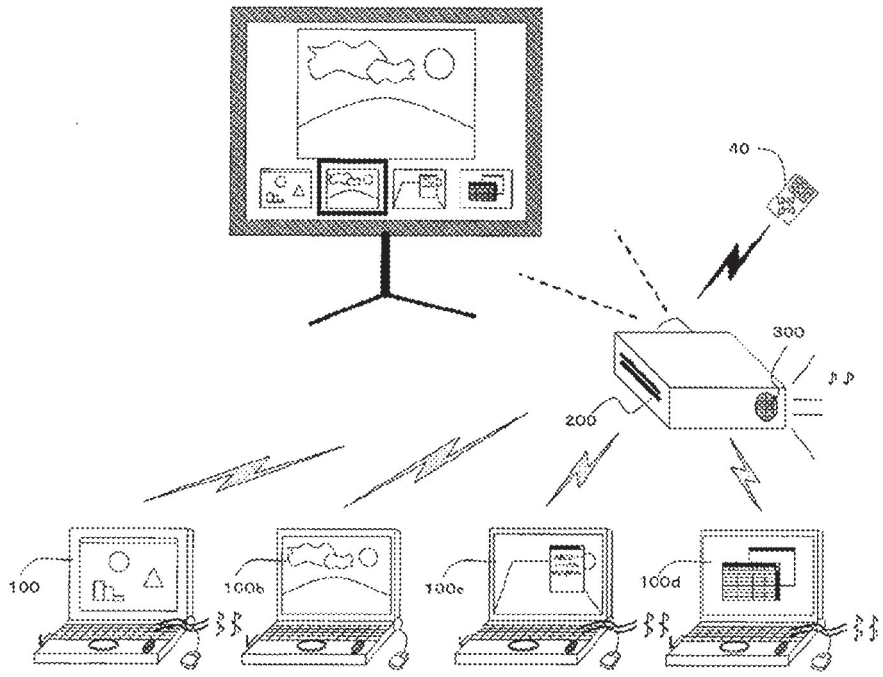
a) *The method of claim 1, wherein a client application is stored on the external peripheral device which when run on the processing device obtains screen scraped data.*

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; *see also* Ex. 1002, ¶182.

Deforche renders obvious that the "*client application is stored on the external 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. Therefore, Maeda either alone or in combination with Deforche renders obvious this limitation. Ex. 1002, ¶183.

5. Claim 5

a) *The method of claim 4, wherein the client application is a portable application.*

Deforche discloses that it would be beneficial for the client application of Maeda to be a "*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. Therefore, a POSITA would be motivated to use a portable application in the method of Maeda using known techniques. Ex. 1002, ¶¶184-187.

6. Claim 7

a) *The method of claim 1, further comprising time-stamping synchronously a stream of the audio data with a stream of the display data.*

At the time of the alleged invention, a POSITA would have recognized and known that the processing time for audio tends to be shorter than for video data. Ex. 1002, ¶¶188-190. Therefore, an independent way to synchronize the audio and video data so that they reflect the original audiovisual content was a known solution. Ex. 1002, ¶¶188-189. For example, Maeda discloses that "[g]enerally, audio has a smaller capacity than images and can therefore be transmitted faster," which may be addressed by a delay in the audio buffer. Ex. 1031, ¶57; Ex. 1002, ¶189. Ahmed discloses synchronously time-stamping audio data and video data. *See, e.g.*, Ex. 1014, 29:6-18 ("Referring to Figure 14, another embodiment of the audio and video synchronization circuit is depicted. The synchronization circuit 1400 at the transmitter end 1401 comprises buffer 1402 having media data, multiplexer 1403 for combining the media data signals, such as graphics, text, audio, and video signals, and a clock 1404 for providing the timestamps to the media content for synchronization. At the receiver end L405 the demultiplexer 1406 using clock 1407 devolves the data stream into the individual media data streams. The timestamps provided by the clocks help synchronize the audio and video at the receiver end. The clock is set at the same frequency as that of receiver. The audio and video, which is demultiplexed, is routed to the speakers 1408 and display device 1409 for rendering."), FIG. 14; Ex. 1002, ¶189.

A POSITA therefore would have found it obvious to implement this or another well-known synchronization technique as was common and known in the art such that the user in a system like that of Maeda is able to synchronize its video and audio output streams Ex. 1002, ¶190. A POSITA would have had a reasonable expectation of success in implementing such techniques because the technology was well known in the art to apply synchronous time stamping. Ex. 1002, ¶190.

7. Claim 8

a) *The method of claim 7, further comprising encoding, optionally encrypting the audio data.*

The '237 patent concedes that a known method 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]." Ex. 1001, 3:12-24 (emphasis added). As such, "*encoding…the audio data*" is admitted prior art. Ex. 1002, ¶191. Furthermore, Ahmed also discloses "*encoding…the audio data*." *See*, *e.g.*, Ex. 1014, 7:11-15 ("Preferably, the computing device 101 and remote monitor 103 further comprise a processing system on a chip capable of wirelessly transmitting and receiving graphics, audio, text, and video encoded under a plurality of standards"), 22:9-12 ("The block that corresponds to the best checking point is the block of the reference frame, which matches best with the block of the current frame that is to be encoded"), 27:30-32 ("Initially, the receiver receives 1301 a stream of encoded video data and encoded audio data wirelessly"), FIG. 13; Ex. 1002, ¶192.

Thus, a POSITA would have found it obvious to implement such standard encoding techniques, such as from the admitted prior art or from Ahmed, for a variety of reasons, such as to make use of standard wireless protocols and components that utilize such standards available to the method of Maeda. Ex. 1002, ¶193. Further, a POSITA would have a reasonable

expectation of success in achieving the claimed invention because it would only have involved the predictable use of known techniques. Ex. 1002, ¶193.

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. 1104, 10-11, citing Ex. 1100, 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, ¶194.

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." *See* Ex. 1101, ¶¶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, ¶¶195-197.

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. 1104, 12-16. 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, ¶¶195-197.

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. 1086), 11,403,237 (the '237 patent, Ex. 1001), 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 '237 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 '237 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 IPR2024-01437 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 '237 patent. The '237 patent issued only in 2022, and therefore there are no settled expectations regarding patentability. Furthermore, the Office has determined that *Advanced Bionics* does not apply to reexaminations.[5] This request passes the *Advanced Bionics* test even if it did apply.

[5] 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).

First, there have been no post-grant challenges to any of challenged claims 2, 4-5, and 7-8. Independent claims 1, 9, 18, and 19 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 on the record. (*See generally Id.*).

The Board is considering similar grounds for different claims in IPR2024-01437, 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 gave general reasons for allowance and, specifically, stated that the prior art did not teach "presenting the external device to the processing device as a human interface device" in combination with all the claimed limitations. Ex. 1004, p.394. Patent Owner argued that the prior art combination did not teach, in relevant part, "that the external peripheral device is presented to the processing device as a human interface device." Ex. 1004, p.675 (7/13/2021 response, 8) (emphasis in original).

Deforche undeniably teaches this limitation, however, such as presenting the wireless modem device as a human interface device (HID) to avoid the need to install a driver for the peripheral wireless modem device. *See* §§ VII.A.2.c and VII.B.2.c above. Therefore, Deforche is different from the prior art the examiner discussed on the record and demonstrates that the examiner materially erred in failing to address Deforche's teachings of what was allegedly missing from the prior art discussed. Furthermore, neither the examiner nor Patent Owner addressed Deforche on the record. Therefore, the examiner made an error in failing to consider Deforche.

Finally, the examiner never expressly considered the references nor the grounds presented in this petition present. Therefore, Petitioner asks the Board to find that the Deforche-based grounds, as well as the other grounds herein, present a reasonable likelihood of prevailing because they teach the limitation of presenting the external peripheral device to the processing device as a human interface device.

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 2, 4-5, and 7-8 of the '237 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.

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Respectfully submitted,

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