

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

YEALINK (USA) NETWORK TECHNOLOGY CO., LTD., AND YEALINK
NETWORK TECHNOLOGY CO., LTD.,

Petitioners,

v.

BARCO N.V.,

Patent Owner.

CASE: IPR2024-01437

U.S. PATENT NO. 11,403,237

PATENT OWNER'S RESPONSE

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Exhibits

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Ex. 2001	Reserved
Ex. 2002	Reserved
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Ex. 2004	Declaration of Dr. Michael Brogioli
Ex. 2005	Curriculum Vitae of Dr. Michael Brogioli
Ex. 2006	June 30, 2025 Deposition Transcript of Kevin C. Almeroth in IPR2024-01436
Ex. 2007	July 1, 2025 Deposition Transcript of Kevin C. Almeroth in IPR2024-01439
Ex. 2008	July 2, 2025 Deposition Transcript of Kevin C. Almeroth in IPR2024-01437
Ex. 2009	July 2, 2025 Deposition Transcript of Kevin C. Almeroth IPR2024-01438
Ex. 2010	Barco Sales Data (<i>Confidential and Redacted Versions Filed</i>)
Ex. 2011	Crestron License Agreement (<i>Confidential and Redacted Versions Filed</i>)
Ex. 2012	<i>Barco and Crestron announce patent license agreement regarding a set of essential ClickShare patents</i> , BARCO (Sept. 12, 2023) https://web.archive.org/web/20240810204702/https://www.barco.com/en/about/press-releases/barco-and-crestron-announce-patent-license-agreement-regarding-a
Ex. 2013	<i>ClickShare conferencing & collaboration</i> , BARCO (April 1, 2025), https://web.archive.org/web/20250401012647/https://www.barco.com/en/products/clickshare-conferencing-collaboration#expand

Exhibit Number	Description
Ex. 2014	<i>ClickShare Button</i> , BARCO (February 12, 2025) https://web.archive.org/web/20250212164931/https://www.barco.com/en/product/clickshare-conferencing-button
Ex. 2015	ECF 65, Joint Claim Construction and Prehearing Statement, <i>Barco, Inc. et al v. Yealink (USA) Network Technology Co., Ltd. et al</i> , 2:2023-cv-521 (E.D. Tex. 11/14/2023)
Ex. 2016	ECF 89, Claim Construction Order, <i>Barco, Inc. et al v. Yealink (USA) Network Technology Co., Ltd. et al</i> , 2:2023-cv-521 (E.D. Tex. 11/14/2023)
Ex. 2017	List of Products Covered by Barco Patents accessible at: https://www.barco.com/en/about/terms-conditions/patents
Ex. 2018	<i>Patent</i> , CRESTRON (June 12, 2025) https://www.crestron.com/legal/patents?page=1
Ex. 2019	Crestron Electronics Private Company Profile, PITCHBOOK
Ex. 2020	ECF 55, Consent Judgment and Permanent Injunction, <i>Barco, Inc. et al v. Vivitek Corporation et al</i> , Case No. 4:19-cv-3250 (N.D. Cal. 4/27/2020)
Ex. 2021	<i>Barco Successfully enforces ClickShare IP against competitors in the U.S.</i> , BARCO (May 26, 2020) https://web.archive.org/web/20240424230846/https://www.barco.com/en/about/press-releases/2020-05-26-barco-successfully-enforces-cs-ip-against-competitors-in-the-us
Ex. 2022	Paul Krzyzanowski, <i>Devices</i> , PK.ORG (updated March 24, 2011).
Ex. 2023	Excerpts from April 18, 2025 Deposition Transcript of Andrew Ludke (<i>Confidential and Redacted Versions Filed</i>)
Ex. 2024	<i>USB device class drivers included in Windows</i> , Microsoft (Apr. 9, 2025) https://web.archive.org/web/20250409210411/https://learn.micros

Exhibit Number	Description
	oft.com/en-us/windows-hardware/drivers/usbcon/supported-usb-classes
Ex. 2025	Reserved
Ex. 2026	Reserved
Ex. 2027	Dr. Kevin Almeroth's Declaration in IPR2024-01438
Ex. 2028	Reserved
Ex. 2029	Reserved
Ex. 2030	Dr. Kevin Almeroth's Declaration in IPR2025-00597
Ex. 2031	Reserved
Ex. 2032	Modified Protective Order

I. INTRODUCTION

U.S. Patent No. 11,403,237 (the “’237 Patent”) describes and claims methods and systems for wirelessly sharing content at a meeting by connecting a user processing device (e.g., a laptop computer) to a peripheral device in communication with a base node connected to a display. *See e.g.*, Ex. 1001, Cls. 1, 11, 21. The ’237 Patent recognizes administrative and logistical hurdles involved in conducting meetings and addresses them with a novel solution. These hurdles include complexity of the networking infrastructure; high demands on technical expertise of users in systems that are supposed to be designed to support everyday use by the non-expert user; barriers to the use of complicated technology in meetings; great variety of possible collaborative software solutions—all of which impede the ability to hold successful meetings. *Id.*, 4:45-5:4.

The ’237 Patent, unlike the references relied on in each petitioned Ground, offers a novel solution which greatly simplifies administrative hurdles of conducting a meeting available to all participants without sacrificing security. Ex. 2004, ¶56. The Petition presents two grounds, each of which are flawed. First, Ground 1 proposed a combination involving non-analogous art (*Mardiks*) and proposed a combination without any motivation for actually doing so. Likewise, Ground 2 presents a combination which a POSITA would be unable to combine with a reasonable expectation of success. Further, in both grounds, the Petition assumes

that *presenting* as a human interface device also results in *communicating audio data or display data* via the human interface device, rather than providing any evidence or reasons why communication of audio data or display data would occur over the human interface device.

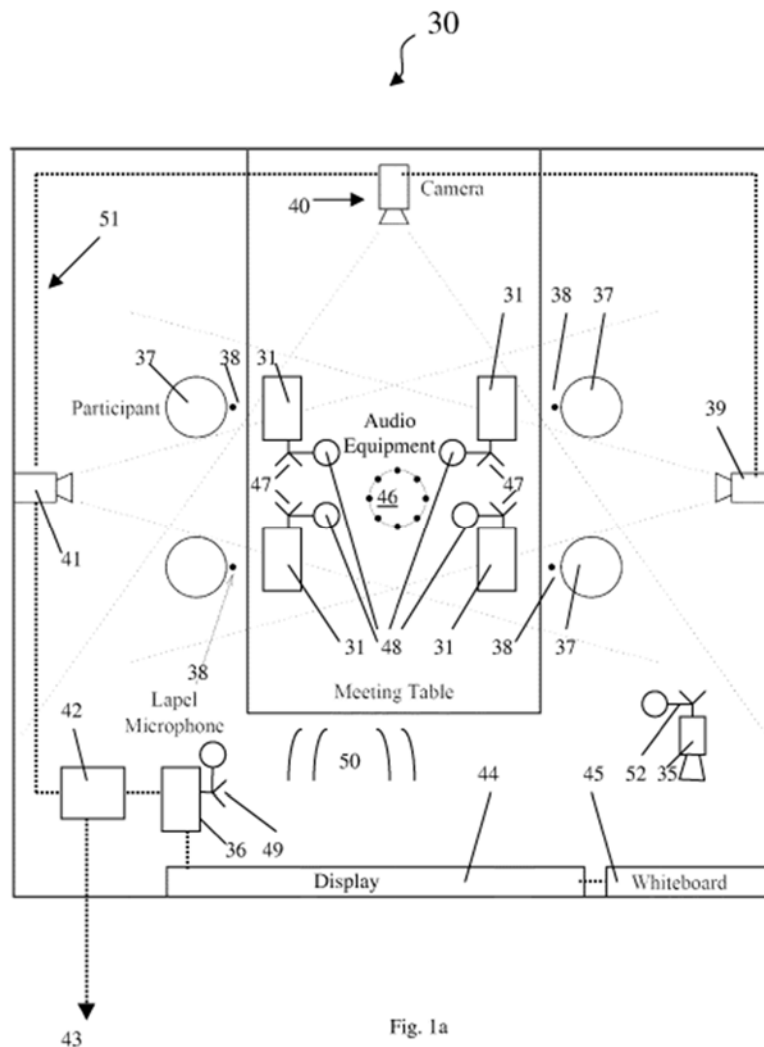
Finally, certain objective indicia of non-obviousness present in this case strongly favor a finding of non-obviousness. The '237 Patent has been successfully licensed, is commercially successful, and the technology embodied therein has garnered praise by others. In light of the weakness of the Petition's obviousness theories and the clear evidence of secondary indicia of non-obviousness, the Board should uphold the patentability of each of the challenged claims.

II. THE '237 PATENT

A. Overview

The inventors of the '237 Patent recognized a need to improve presenting and collaboratively working on content in a meeting-setting. Ex. 1001, 16:12-26; *see also id.*, 3:21-5:5; Ex. 2004, ¶51. Prior presentation systems relied on cabled connections, LAN communications, or specialized software, systems could be improved by “advantageously us[ing] the availability of a plug and play interface such as a USB interface.” Ex. 1001, 3:21-4:18, 30:56-63; Ex. 2004, ¶51. Computers and other devices provided for standard built-in support for a USB device, including standard generic audio drivers. Ex. 1001, 30:59-61; Ex. 2004, ¶51. By using these

Figure 1a depicts a meeting room 30 where multiple participants 37 with processing devices (e.g., laptops) 31 are coupled to peripheral devices (also described as connection units) 47 adapted to communicate media content to a base node 36 connected to a display 44:



Ex. 1001, 16:27-33, 17:8-10, 18:40-43, Fig. 1a; Ex. 2004, ¶52. The user processing device 31, peripheral devices 47 and base node 36 form a communication network for linking to the central display 44. Ex. 1001, 18:29-33; Ex. 2004, ¶52.

The peripheral device may include various components such as a portable application, a processing engine, a wireless transmitter, a plug and play interface and a button. Ex. 1001, 23:65-24:19; Ex. 2004, ¶53. A user can connect the peripheral device to a port of its processing device to connect to a central display. Ex. 1001, 25:7-10; Ex. 2004, ¶53. The connection unit may present itself as various devices, such as a USB composite device, audio device, mass storage device, or human interface device. Ex. 1001, 6:55-62, 7:6-8, 30:62-63; Ex. 2004, ¶53.

When the peripheral device is connected to the processing device, the user can share audio data to the peripheral device's audio device, which is then streamed to the base node. Ex. 1001, 31:31-34; Ex. 2004, ¶54. This audio sharing is done with only standard drivers and does not require special software installation. Ex. 1001, 31:4-45; Ex. 2004, ¶54. The audio data is then transmitted over a communication network to the base node. Ex. 1001, 31:47-49; Ex. 2004, ¶54. Once received, the audio data can be shared in the meetings from the base node. Ex. 1001, 32:19-25; Ex. 2004, ¶54.

The peripheral device is also capable of sharing display data. Ex. 2004, ¶55. A software application is stored on the peripheral device and run on the processing

device, capturing video data available on the processing device. Ex. 1001, 32:31-39; Ex. 2004, ¶55. The software application is stored on the peripheral device and implemented as a portable application, so it leaves zero-footprint on the processing device once disconnected. Ex. 1001, 21:7-9; 32:49-52; Ex. 2004, ¶55. The video signal is encoded, packeted and shared to the peripheral device using another pre-installed generic driver, like a human interface device (HID) driver. Ex. 1001, 32:55-62; Ex. 2004, ¶55. The video data is then unpacked and transmitted over the communications network with the audio data. Ex. 1001, 32:63-33:1; Ex. 2004, ¶55.

The base node receives the audio and video data, completes any necessary decoding or unpacking, synchronizes the data and shares it over the display and other output devices. Ex. 1001, 33:28-36; Ex. 2004, ¶56. None of the cited references provide the same wireless content sharing over a peripheral device using pre-installed generic drivers. Ex. 2004, ¶56; *see generally*, Ex. 1026; Ex. 1027; Ex. 1030; Ex. 1031. Therefore, the references relied upon in the Petition do not render obvious the challenged claims of the '237 Patent.

B. Device Drivers

An operating system utilizes drivers to interact with other devices. While drivers are also software, drivers differ from computer applications and operating systems in that they are specialized “translators” to allow different systems to communicate with each other. Ex. 2004, ¶67; Ex. 2006, 8:24-9:6.

An operating system is the system level software used to manage the hardware and software resources of a given computer. Ex. 2004, ¶68. It is responsible for the management of memory, file systems, computer networking functionality, and user interfaces, among other key functions. Ex. 2004, ¶68. It also provides the foundation which computer applications can run on. Ex. 2004, ¶68. Common operating systems include Window, MacOS, Android, iOS, and Linux. Ex. 2004, ¶68.

Software applications are specific computer programs designed to perform user oriented or user-facing tasks. Ex. 2004, ¶69. Examples include web browsers, media players, and productivity applications. Ex. 2004, ¶69.

Drivers on the other hand are designed to control hardware connected to a computer, and they allow the operating system and computer applications of a given machine to interact with the connected hardware. Ex. 2022; Ex. 2004, ¶70. Drivers function as translators between the underlying hardware and the software layers of the operating system and applications themselves. Ex. 2004, ¶70. This way, the operating system and applications do not need to know they are accessing one type of device over another (e.g., a USB memory device rather than a memory disk) and can instead leave the specific translation to the driver, allowing the operating system and application to be agnostic to the specific mouse, keyboard, or USB memory

device that is connected to the machine, treating them as simply a “human interface device” or a “storage device.” Ex. 2022; Ex. 2004, ¶70.

Drivers are operating system specific—they must operate with and conform to the given operating system’s device driver architecture. Ex. 2004, ¶71. A driver that is designed to work with a large variety of devices is called a generic driver. Ex. 2022; Ex. 2004, ¶71. Drivers may come already installed on commercial operating systems, and in such a situation would be referred to as “pre-installed drivers.” Ex. 2004, ¶71. One example of a pre-installed generic driver is a USB driver. Ex. 2004, ¶71. USB devices have different USB device classes. Ex. 2024, 1; Ex. 2004, ¶71. Devices are grouped into classes, and these USB device classes are categorized based on the characteristics of the devices and common functions they perform. Ex. 2024, 1; Ex. 2004, ¶71. Operating systems, such as the Microsoft Windows operating system, provide support for some device classes with their pre-installed drivers. Ex. 2024, 1, 3-8 (listing Microsoft-provided USB device class drivers); Ex. 2004, ¶71. When supported devices are connected to a computer, the operating system will automatically call the required class driver and the supported device will function without additional drivers being installed. Ex. 2024, 1; Ex. 2004, ¶72. The class drivers are configured with the device class purpose in mind so that they may suitably handle the volume and speed of data transfer. Ex. 2004, ¶72; Ex. 2006,

104:3-105:10. Different class drivers also have different command structures and communications protocol to suit these purposes. Ex. 2004, ¶72.

When certain device capabilities are not supported by the drivers for a given class that are provided by the operating system, a vendor may design a custom or specific driver which can then be installed on a computer to support said functionality. Ex. 2024, 2; Ex. 2004, ¶73. These drivers are considered to be “special purpose” in that they are unique to a given piece of hardware. Ex. 2004, ¶73; Ex. 2006, 13:12-18, 15:12-17.

C. Claim Construction

In *Barco, Inc. et al v. Yealink (USA) Network Technology Co., Ltd. et al*, 2:2023-cv-521 (E.D. Tex. 11/14/2023), the parties have submitted a Joint Claim Construction Statement (Ex. 2015) which included certain agreed constructions and further briefed and argued other claim terms. The court in that case issued a Claim Construction Order construing certain other claims. Ex. 2016. Claims construction here should not conflict with the construction in the District Court. *KioSoft Techs., LLC v. PayRange, Inc.*, IPR2021-00086, Paper 12, at 16 (PTAB Mar. 22, 2021) (“[S]ubsequent decisions issued in reliance on these inconsistent claim constructions may lack ‘uniformity’ between us and the district court and may undermine the ‘predictability’ of the [challenged] patent’s scope and the ‘integrity of the patent system’ overall.”). While the claims of the ’237 Patent are not rendered obvious

under any reasonable construction of its claim terms, Patent Owner proposes the following clarifications and interpretations of certain terms:

1. “couple” / “coupling” / “coupled” (Claims 1, 9, 18, 19)

Each of “couple” / “coupling” / “coupled” should be interpreted consistent with the district court’s construction for each instance of this term. The parties agreed in the district court that “couple” and “coupling” means “Connect[ing] two devices, either directly or indirectly.” Ex. 2015, 7. “Coupled” should be interpreted consistent with this understanding. See Ex. 2004, ¶57.

2. “Means for... display data communication and audio communication” (claims 1, 11)

The district court has construed the following terms as relating to U.S. Patent No. 10,762,002 (the “’002 Patent”), which the ’237 Patent claims priority to, outlined below:

Disputed Term	The Court’s Construction
“means for audio communication” (’002 Patent, Claim 1)	Governed by 35 U.S.C. § 112 ¶ 6 Function: Provide audio communication between the peripheral device and the processing device Structure: “an interface using a generic communications protocol” As set forth in Ex. 2016, 10-13.

“means for data communication” (’002 Patent, Claim 1)	Governed by 35 U.S.C. § 112 ¶ 6 Function: Provide data communication between the peripheral device and the processing device Structure: “an interface using a generic communications protocol” As set forth in Ex. 2016, 10-13.
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Ex. 2016, 16. In light of the Court’s construction, the “means for... display data communication and audio communication” should be construed as an interface using a generic communications protocol which provides data communication between the peripheral device and the processing device. *Id*; *see also* Ex. 1001, 19:64-20:22; Ex. 2004, ¶57.

D. Level of Ordinary Skill in the Art

Petitioner provided the following level of skill for this proceeding: at least a Master’s Degree in Electrical Engineering and five years of work experience in computer science and embedded systems, or a Master’s Degree in Computer Science and five years of work experience in electrical and computer engineering and embedded systems, and that additional educational experience could substitute for some of the work experience. Petition, 10. Patent Owner does not dispute this level

of skill in the art and submits that Dr. Brogioli meets this level and can provide helpful testimony for this case. Ex. 2004, ¶¶8-19, 46-50; Ex. 2005.

E. Dr. Almeroth's Opinions Should Not Be Afforded Weight

Dr. Almeroth did not reliably provide consistent opinions across the seven IPR challenges against Patent Owner's patents, so his opinions regarding the validity of each challenged patent should be afforded little weight.

First, Dr. Almeroth provides inconsistent opinions regarding his technical knowledge of the patented technology. This is clear from his treatment of drivers and data communications across the challenges. When asked about specific types of data and drivers, Dr. Almeroth stated: “[d]ata is data; right? So whether it’s real-time audio/video, whether it’s audio/video from a file, whether it’s video scraped off a screen, its source doesn’t affect the use of the transfer channels that can be created.” Ex. 2006, 101:1-5. Dr. Almeroth further noted “[i]t’s kind of what I described earlier, a way of using a basic interface or a mode and then ***data is data*** and you can send it. And once it’s received, the device can do anything it wants with it.” Ex. 2006, 121:15-17. However, in his declaration submitted in IPR2025-00597, Dr. Almeroth indicates that the type of data impacts the way in which the data can be communicated. Ex. 2030, ¶¶212-213. Specifically, Dr. Almeroth states “a POSA would recognize and find it obvious in the art that data is conventionally scaled, transcoded, or mixed *based on a type of functional data* it represents, such on

whether the data is audio data, visual data, or another type of data.” (emphasis in original). Ex. 2030, ¶212. Further, he explains that “A POSA would recognize and understand that codecs, which were well-known in the art, are specific to data type, such as whether the data being compressed, decompressed, encoded, or decoded is audio data, visual data, *etc.*” (emphasis in original). Ex. 2030, ¶213.

Even though Dr. Almeroth alleges “data is data...its source doesn’t affect the use of the transfer channels that can be created[,]” he also explains that there are several tradeoffs involved in selecting certain drivers in place of others when implementing a system. Ex. 2006, 101:1-5, 104:3-105:10. However, such analysis is absent in his proposed combinations. Indeed, Dr. Almeroth’s opinions even regarding drivers were unclear. During depositions, Dr. Almeroth would not provide a clear definition of drivers and software applications, insisting that it is largely dependent on context. Ex. 2006, 24:8-26:17. However, when it suits his argument, Dr. Almeroth clearly identifies a driver as “a term for a special form of software that provides an interface between hardware and application-level software, and is standard in all personal computers.” Ex. 2027, ¶116.

Second, Dr. Almeroth offers inconsistent interpretations of references depending on his hindsight-driven theories of invalidity. Instead of providing a clear and consistent interpretation of a reference as a whole, Dr. Almeroth changes his

interpretation to fit the challenged claims. For example, in arguing that a POSITA would combine *Maeda* and *Deforche*, Dr. Almeroth opines:

a POSITA would have been motivated to combine the teachings of Deforche with the system of Maeda because the POSITA would have recognized the combined system provided, at least, a streamlined and more user-friendly application of Maeda’s system—a user is not required to install a separate driver or configure any settings for the peripheral device’s functionality.

Ex. 1002, ¶130.

In other words, Dr. Almeroth alleges a POSITA could improve *Maeda* by avoiding the need to install drivers and implement settings that *Maeda*’s system uses. *Id.* However, this conflicts many other opinions Dr. Almeroth has offered regarding *Maeda*. For example, when asked if *Maeda* describes installation of a driver, Dr. Almeroth indicated that “I don’t see a reference to a driver. ***That might actually be required in the context of other patents and claims***, and so at least for Maeda for the ’237, I don’t recall a limitation where I would have needed to point to support in Maeda for that concept.”¹ Ex. 2008, 33:13-18. When asked if Maeda describes the use of drivers, Dr. Almeroth explained “Paragraph 15 is an example, figure 1, and then it uses that functionality to establish the understanding a person of skill in the

¹ Emphasis is added unless otherwise noted.

art would have had about the use of drivers.” Ex 2006, 78:20-24. He further articulates that:

Pretty much the references to a PC after that and the functionality of a PC communicating with components that are external to the PC via the various interfaces are all the kinds of things that would use drivers. So *I think the concept is taught pretty expansively throughout Maeda. And to be clear, the concept is using PCs to connect to components outside of the device and the interfaces. And they use the drivers to do that.*

Ex. 2006, 79:21-80:3. In other instances, Dr. Almeroth interpreted *Maeda* as not requiring any software. Ex. 2006, 78:1-7 (“I think a person of skill in the art reading this would understand that you have the typical flexibility of how the functionality could be implemented *across the spectrum. Mostly hardware, all hardware, mostly software.*”).

Dr. Almeroth’s ambiguous description of references is not limited to *Maeda*. Dr. Almeroth refused to consider the reference for what it reasonably discloses and instead renders all teachings it discloses and does not disclose as design choices to fit the patent challenge. For example, regarding *Kaplan*, when discussing if *Kaplan* requires software installation to function, Dr. Almeroth opined that such software was not necessary. Ex. 2006, 61:6-21 (“.... That is not something I rely on as the basis for my opinions in the declaration.”). When asked if *Kaplan* disclosed

embodiments that did not install software, Dr. Almeroth stated “I don’t have Kaplan memorized. I don’t know if it gives that as an option, ***but it would certainly be an obvious design choice*** just based on the simple way in which computers have operated for at least a decade before the ’002 Patent.” Ex. 2006, 63:24-64:3. Dr. Almeroth does this with multiple references. Ex. 2009, 21:4-9 (“There is an embodiment within Ono where it does describe storing the connection application, the driver and configuration information on the hard drive. ***But it is not my recollection that that was a limiting aspect of Ono’s invention***”); Ex. 2027, ¶136 (“Although Ono’s connection application 46, a driver 47 and configuration information 48 are described in one embodiment as stored on a USB memory 45... the location of storage of that information would have been simply ***a matter of design choice.***”). These ‘design choices’ appear to be based on what specific claim language requires. Ex. 2008, 21:1-5 (“In the context of the ’237 patent, I don’t think I’ve looked – never offered an opinion as to what those required software components are. If I am misremembering some reference to paragraph 48 in the declaration, you can point me to it.”).

Regarding *Uchida*, Dr. Almeroth did not consider teachings to the extent they were not required by the challenged patent. Ex. 2007, 30:22-31:3 (“I have not specifically looked. My recollection is that where the information comes from to set up the wireless network is not a requirement of the claims of the ’951 Patent. So how

Uchida accomplishes it or how a person of skill in the art would understand that it could be set is not relevant to an aspect of the claim language of the '951 Patent.”). Rather than consider the teachings of references as a whole, independent from the challenged claims, Dr. Almeroth would simply evade questions regarding aspects of the references he did not rely on. Indeed, he indicated he didn’t have aspects “memorized” over twenty times and identified over fifteen “design choices” throughout the course of his depositions. *See generally* Ex. 2006; Ex. 2007; Ex. 2008; Ex. 2009. The expansive view Dr. Almeroth takes regarding “design choices” renders his opinions regarding references unreliable and inconsistent.

Based on these examples, among a myriad of others, it is clear that Dr. Almeroth’s interpretation of the reference is not actually based on the reference itself but is instead biased by the patent he is challenging with his opinions and that the opinions he advances are driven by a desire to reach the claims: classic hindsight. Accordingly, his opinions on at least this topic should be afforded little weight.

III. GROUND 1

Ground 1 fails to render all elements of the challenged claims obvious. Ex. 2004, ¶¶74-78. Ground 1 is based on a combination of *Kaplan* and *Mardiks*. However, the offered motivation to combine is insufficient because, as the Petition and Dr. Almeroth note as well, *Kaplan* already teaches automatically launching applications on installation, so a POSITA would have no motivation to modify

Kaplan to instead provide this function based on the teachings of *Mardiks*. Additionally, even if *Kaplan* was modified based on *Mardiks*, there is no basis to conclude that such combination would communicate either audio data or display data via a human interface device.

A. Kaplan (Ex. 1027)

The primary reference of this ground, U.S. Pub. No. 2010/0295994 (“*Kaplan*”), describes transmitting video content between a computer and display device using a transmitter and a receiver. Ex. 1027, Abstract; Ex. 2004, ¶59. The transmitter is a dongle with a USB connector and connects to a port of a computer. Ex. 1027, ¶17; Ex. 2004, ¶59. The receiver includes one or more video and audio outputs (such as HDMI) and connects to a display. Ex. 1027, ¶16; Ex. 2004, ¶59. The system also includes a remote control which controls the playback of video footage on the display device. Ex. 1027, ¶19; Ex. 2004, ¶60. Together, these components provide a system which makes video footage accessible on a computer to a display device. Ex. 1027, ¶19; Ex. 2004, ¶60. Figure 2 below shows the remote control 130, receiver 110 connected to a display device 210, and transmitter 120 connected to a computer 220:

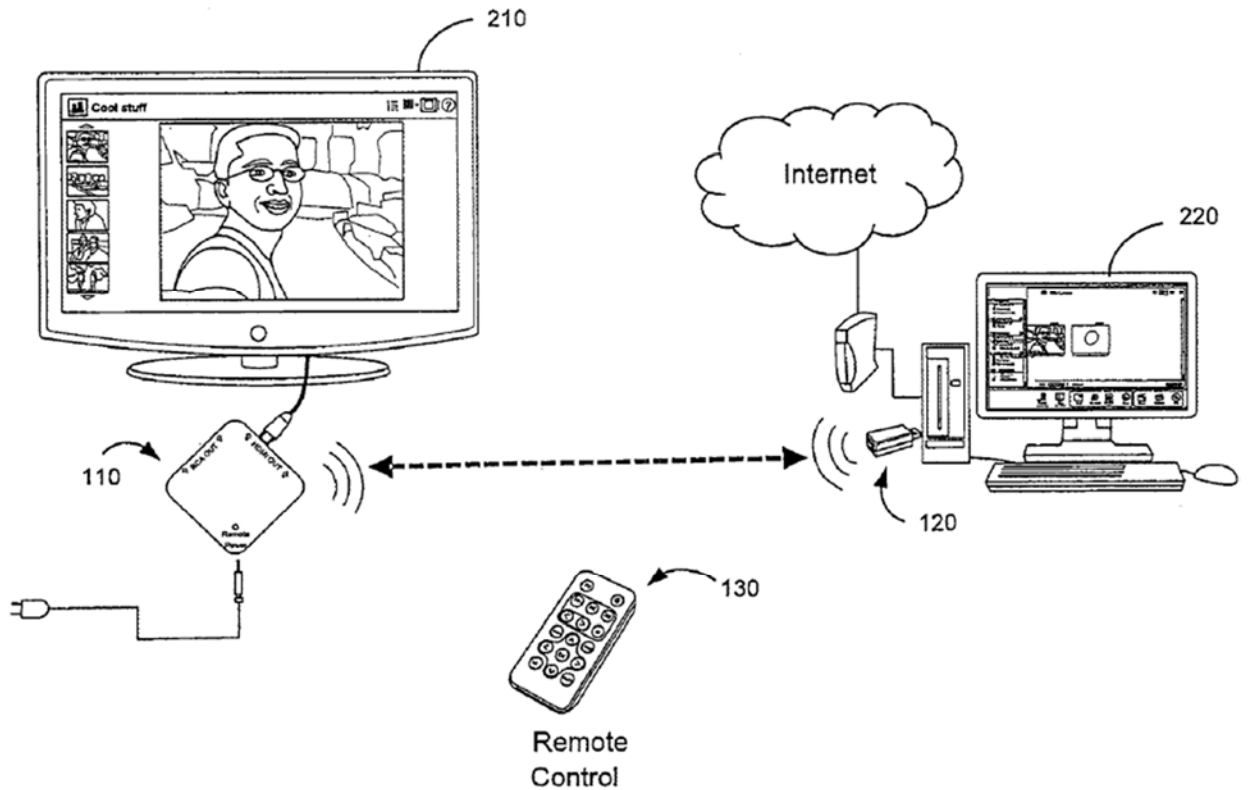


FIG. 2

Ex. 1027, Fig. 2, ¶21; Ex. 2004, ¶60.

To enable content sharing, when first connected, the transmitter (120) installs software onto the computer, and through the use of this installed software, the user is able to share media from computer 220, through transmitter 120 to receiver 110 and ultimately to display device 210 where content is displayed. Ex. 1027, ¶22; Ex. 2004, ¶61. Alternatively, instead of installing the software from the transmitter, the software may be downloaded from the internet. Ex. 1027, ¶22; Ex. 2004, ¶62. However, in all embodiments, only once the software is installed, can the video content be shared on the display. Ex. 1027, ¶23 (“After the installation of software

resident on the transmitter, typically only requiring an acceptance of a click-through license agreement by the family member, the family member is able to receive videos from the user and then watch them on their television.”); Ex. 2004, ¶62. *Kaplan* specifically notes that a benefit of its system is the availability of metadata associated with the video content stored on the computer or the internet, which is available, in contrast to convention media extenders, due to the custom software solution which makes proprietary features available. Ex. 1027, ¶29 (“Additionally, since embodiments of the present invention provide *custom software solutions*, the methods and systems described herein make available proprietary features such as user-defined channels that are not available using conventional techniques.”); Ex. 2004, ¶63. *Kaplan* indicates that this metadata and user-defined channels are not available using other techniques. Ex. 1027, ¶29 (“The availability of this metadata contrasts with conventional media extenders in which only video content is available.”); Ex. 2004, ¶63.

B. Mardiks (Ex. 1026)

The secondary reference of this ground, U.S. Pub. No. 2009/0172219 (*Mardiks*), provides a USB peripheral device that automatically launches an application residing in its memory after it is connected to a host or after restarting the host if the flash drive has already been connected. Ex. 1026, Abstract; Ex. 2004, ¶58. When plugged into a host computer, the USB device sends a stream of emulated

keystrokes to the host causing the host computer to generate and execute a startup script. Ex. 1026, ¶18; Ex. 2004, ¶58. The startup script may cause the host to execute an application hosted on the USB device. Ex. 1026, ¶24; Ex. 2004, ¶58. *Mardiks* does not describe a system for wireless content sharing. *See generally*, Ex. 1026; Ex. 2004, ¶58.

1. *Mardiks is Not Analogous Art*

The Petition fails to prove that *Mardiks* is analogous art. “A reference qualifies as prior art for an obviousness determination . . . only when it is analogous to the claimed invention.” *In re Klein*, 647 F.3d 1343, 1348 (Fed. Cir. 2011). An obviousness ground that relies upon non-analogous art fails. *Id.*, at 1352.

“Petitioner bears the burden of showing by a preponderance of evidence that the asserted prior art references are analogous art[.]” *SCHOTT Gemtron Corp. v. SSW Holding Co., Inc.*, IPR2013-00358, Paper 106, 26 (PTAB Aug. 20, 2014). To be analogous, a reference must be either (1) from the same field of endeavor as the patent-at-issue, or (2) be reasonably pertinent to the particular problem with which the inventor of the challenged patent is involved. *In re Clay*, 966 F.2d 656, 658-59 (Fed. Cir. 1992).

Petitioner fails to prove that *Mardiks* is analogous to the ’237 Patent under either prong. Ex. 2004, ¶¶75, 79. The ’237 Patent’s field relates to wireless presentation systems whereas *Mardiks* is directed towards the USB standard and

devices. *See infra* Section III.B.1.a. Likewise, while the '237 Patent addresses the pertinent problem of providing a system for presenting content in a meeting which (1) simplifies the use of the technology, (2) is compatible with existing corporate security measures, and (3) provides or is compatible with a variety of collaborative software tools, *Mardiks* addresses automatically launching an application on a flash driver. *See infra* Section III.B.1.b. The Petition provides no argument that *Mardiks* is analogous to the '237 Patent.

a. *Mardiks* does not fall into the field of endeavor of the
'237 Patent

The '237 Patent's field of endeavor—as confirmed by its title, abstract, field of invention, figures, written description, and claims—is wireless presentation systems. Ex. 2004, ¶80.

To discern the field of endeavor, the Federal Circuit has often looked to a patent's "background of invention" and "field of the invention" sections. *See, e.g., In re Wood*, 599 F.2d 1032, 1036 (CCPA 1979) (determining field of endeavor based on "Background of Invention"); *Airbus*, 941 F.3d at 1381 n. 8 (Fed. Cir. 2019) ("[T]he specification of each reference includes a 'Field of the Invention' section that distinctly describes each applicable field of endeavor."). A patent's title, claim preamble, and function and structure of the claimed inventions may also bear upon the field of endeavor. *Id.*, at 1380-81 (affirming Board's finding of field of endeavor

based on “the title of the [] patent and the preamble of a ... claim”); *In re Bigio*, 381 F.3d 1320, 1326 (Fed. Cir. 2004).

Each of these traditional sources of identifying a field of endeavor confirms that the '237 Patent's field is wireless presentation systems. Ex. 2004, ¶80. The '237 Patent's title concerns “Electronic Tool and Methods With Audio For Meetings[.]” Ex. 1001, Title. While the title itself doesn't explicitly reference that the electronic tool uses wireless systems, it is clear upon review of the abstract, claims, and specification that wireless communications are relied upon.

The abstract describes wirelessly communicating content from a peripheral device to a base node over a communications network. Ex. 1001, Abstract. The Background of the '237 Patent similarly addresses numerous different types of presentation systems. Ex. 1001, 1:24-5:5. Indeed, the independent claim describes communicating audio and display data from a processing device to a base node over a wireless communications network via a peripheral device. Ex. 1001, Cls. 1, 9, 18, 19.

Conversely, *Mardiks's* field of endeavor is directed towards the Universal Serial Bus standard, which provides communications for interacting between a computer and peripheral devices. Ex. 1026, ¶1; Ex. 2004, ¶80. More specifically, *Mardiks* addresses use of USB flash drive devices. Ex. 1026, ¶5; Ex. 2004, ¶80.

Under Federal Circuit precedent, even art with substantial similarities and in the same technological area as the patent-at-issue may not be in the same field. *In re Clay*, 966 F.2d at 657-60.

Clay, the leading analogous art decision, is instructive. *Id.* There, a finding of analogous art was “clearly erroneous” where the patent-at-issue and the allegedly analogous art both related to gels used in the petroleum industry. *Id.* *Clay* confirms the impropriety of overly broad fields of endeavor, such as gels in the petroleum industry. *Id.* at 659 (one had a “field of endeavor [of a gel for] *storage* of refined liquid hydrocarbons” where the other had a “field of endeavor of [a gel for] the *extraction* of crude petroleum,” and finding them different); *see also Wang Labs., Inc. v. Toshiba Corp.*, 993 F.2d 858, 864-65 (Fed. Cir. 1993) (same analysis for electronics).

The art here more clearly falls in a different field from the '237 Patent than was the case in *Clay*'s petroleum gels. Accordingly, the '237 Patent wireless presentation system and *Mardiks*'s USB standard-based system do not share the same field of endeavor. Ex. 2004, ¶80.

- b. *Mardiks* is not reasonably pertinent to the particular problem of the '237 Problem

Mardiks is also not analogous art under the second prong of the *Clay* test because it is not reasonably pertinent to the particular problem the inventors of the

'237 Patent were trying to solve. The '237 Patent addresses the pertinent problem of providing a system for presenting content in a meeting which (1) simplifies and improves upon the use of network-based presentation systems, (2) provides a means for audio communication over a wireless network without the need to install proprietary software (3) is compatible with existing corporate security measures. Ex. 1001, 4:45-5:4; Ex. 2004, ¶81. Meanwhile, *Mardiks* seeks to provide “a USB flash drive so that, upon connection to a host supporting the USB standard, or upon restarting the host if the USB flash drive were already connected, the USB flash drive would automatically launch an application residing in the memory.” Ex. 1026, ¶5; Ex. 2004, ¶81. There is no evidence that *Mardiks* relates to anything reasonably pertinent to the problems identified by the '237 Patent. Ex. 2004, ¶81.

Therefore, the Petition's Ground 2 fails at least because the *Mardiks* is not within the field of endeavor nor addresses a pertinent problem to the '237 Patent.

C. There Is No Motivation To Combine *Kaplan* with *Mardiks*

The Petition's *only* identified motivation to combine *Kaplan* and *Mardiks* is based on allowing *Kaplan* to automatically launch a stored application. Petition, 22. However, this is a feature *Kaplan* already provides. Ex. 1027, ¶¶22, 47; Ex. 2004, ¶¶76, 82; Ex. 1002, ¶94 (“Kaplan explains that upon detecting the transmitter, the operating system may be configured to check the contents of non-volatile memory 420 for an ‘autoplay.inf’ file.”). As a result, the articulated basis cannot serve as a

reason to make any modification to *Kaplan*. Rather, the Petition attempts to modify *Kaplan* because *Kaplan* does not include all limitations of the '237 Patent. See Petition 21 (“*Kaplan*’s disclosure, however, does not disclose the peripheral device being presented to the computing device as a ‘human interface device.’”).

Kaplan’s system already provides for the stored application to be automatically launched. Ex. 1027, ¶¶22 (“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”), 47 (“When a connection between the transmitter 120 and the computer 220 is detected by the computer 220, an operating system executing on the computer may automatically execute the resident software application.”); Ex. 2004, ¶83. The computer’s operating system is configured to check the contents of the non-volatile memory of the transmitter for an “autoplay.inf” when the transmitter is connected. Ex. 1027, ¶47; Ex. 2004, ¶83. This “autoplay.inf” file is detected and it directs the operating system to the resident software application stored on the non-volatile memory of the transmitter, and then the computer executes the resident software application. Ex. 1027, ¶47; Ex. 2004, ¶83. Dr. Almeroth has the same understanding of this feature. Ex. 1002, ¶94; Ex. 2008, 20:3-19; Ex. 2004, ¶84.

As *Kaplan* already provides for the stored application to be automatically launched when the transmitter is plugged in, there is simply no motivation to modify

Kaplan to include ***the same feature***. Petition, 29 (“Both [Kaplan and Mardiks] 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, ¶99 (“Both [Kaplan and Mardiks] use a similar technique to enable the peripheral device to be a plug-and-play device, whereby simply plugging in the peripheral device to be a plug-and-play device, the peripheral device can launch an application stored on the peripheral device.”); Ex. 2008, 30:12-23 (“As I’ve testified to, ***I think there are pros and cons of each***. Those would have been understood to a person of skill in the art. They ultimately become just different programming techniques for accomplishing the same function or similar functions... ***there isn’t really a difference in the use of INF files or VBScript that goes to more of an unrelated implementation***”); Ex. 2004, ¶85. Such an argument is insufficient. *Belden Inc. v. Berk-Tek LLC*, 805 F.3d 1064, 1073 (Fed. Cir. 2015) (“[O]bviousness concerns whether a skilled artisan not only *could have made* but *would have been motivated to make* the combination or modification of prior art to arrive at the claimed invention.”) (emphasis in original); *Virtek Vision International ULC v. Assembly Guidance Systems, Inc.*, 97 F.4th 882, 888 (Fed. Cir. 2024) (“The mere fact that these possible arrangements existed in the prior art does

not provide a reason that a skilled artisan would have substituted [an element of one reference with the elements of another].”).

There is no description in the Petition or Dr. Almeroth’s declaration regarding the tradeoffs involved in using a human interface device driver in the place of the system *Kaplan* utilizes. Petition, 21-22; Ex. 1002, ¶¶86-87; Ex. 2006, 104:3-105:10; *see supra* Section II.B. In actuality, the Petition seeks to replace the “autoplay.inf” feature of *Kaplan* with teachings from *Mardiks* to meet the human interface device-based claim limitations of the ’237 Patent. Ex. 1002, ¶¶86-87 (“Kaplan’s system ***does not explicitly disclose*** presenting the peripheral device to the computing device as a ‘***human interface device.***’ However, a POSITA would have found that *Mardiks* discloses a method and peripheral device which ***presents itself as a human interface device (HID).***”); Ex. 2008, 25:5-9 (“You can do a search but, certainly, in the context of USB and, certainly, from the purpose of the human interface device, ***I think is one of the reasons I’ve relied on Mardiks*** in the combination of – with Kaplan.”).

As the Petition admits that *Kaplan* does not disclose at least “the peripheral device being presented the computing device as a ‘human interface device,’” Ground 1 fails for this reason alone. Petition, 21; Ex. 1001, Cls. 1, 9, 18, 19; Ex. 2004, ¶86.

D. The *Kaplan-Mardiks* Combination Does Not Teach Communicating Audio Or Display Data Via the Human Interface Device

Claim 1 of the ’237 requires “communicating at least one of audio data and

display data from the processing device to the external peripheral device via the human interface device[.]” Ex. 1001, Cl. 1. Similar limitations can also be found in Claims 9, 18, and 19. Ex. 1001, Cls. 9, 18, 19. *Kaplan* and *Mardiks* are insufficient with respect to this limitation. Ex. 2004, ¶¶77, 87.

Kaplan does not describe communicating either audio data or display data via a human interface device. Ex. 2004, ¶88. In *Kaplan*, the transmitter may identify itself to the computer as a mass storage device. Ex. 1027, ¶46; Ex. 2004, ¶88. There is no disclosure of a human interface device. Ex. 2004, ¶88; *see generally*, Ex. 1027. Accordingly, *Kaplan* does not teach communicating audio data or display data *via* a human interface device. Ex. 2004, ¶88.

Likewise, *Mardiks* does not teach this limitation. Ex. 2004, ¶89. *Mardiks* does not mention display data or audio data. Ex. 2004, ¶89; *see generally*, Ex. 1026. *Mardiks* instead is focused on an automatically launching routine, which is accomplished by communicating a stream of emulated keystrokes. Ex. 1026, ¶¶6, 19; Ex. 2004, ¶89. So, *Mardiks* also does not teach communicating audio data or display via a human interface device. Ex. 2004, ¶89.

The *Kaplan-Mardiks* combination also does not teach communication of audio data and display data via the human interface device. Ex. 2004, ¶90. For this limitation, the Petition relies on *Kaplan*’s disclosure of video and audio data communications. Petition, 30 (citing Ex. 1027, ¶¶17, 28; *see also* Ex. 1034, ¶90, 93

(irrelevantly describing communications over a PCMCIA interface)). The Petition and Dr. Almeroth provide ***no evidence*** that audio data or video data are shared over a human interface device. Petition, 30; Ex. 1002, ¶¶101-102; Ex. 2004, ¶90. *Even if* a POSITA would modify *Kaplan* to use the automatically launching-process of *Mardiks*, there is no basis to modify the way data is already communicated in *Kaplan* (which does not present as a human interface device). Petition, 21 (“Kaplan’s disclosure... does not disclose the peripheral device being presented to the computing device as a ‘human interface device.’”); Ex. 2004, ¶90.

Further, Dr. Almeroth himself has opined that depending on the type of data used, different steps need to be taken to communicate the data. *See* Ex. 2030, ¶¶212-213 (Dr. Almeroth opining that “different data types require different methods of scaling, transcoding, or mixing... based on the type of data it is” and that “[a] POSA would recognize and understand that codecs... are specific to data type, such as whether the data being compressed, decompressed, encoded, or decoded is audio data, visual data, etc.”). The Petition’s assumption that ***presenting*** as a human interface device also results in ***communicating audio data or display data*** via the human interface device is unfounded.

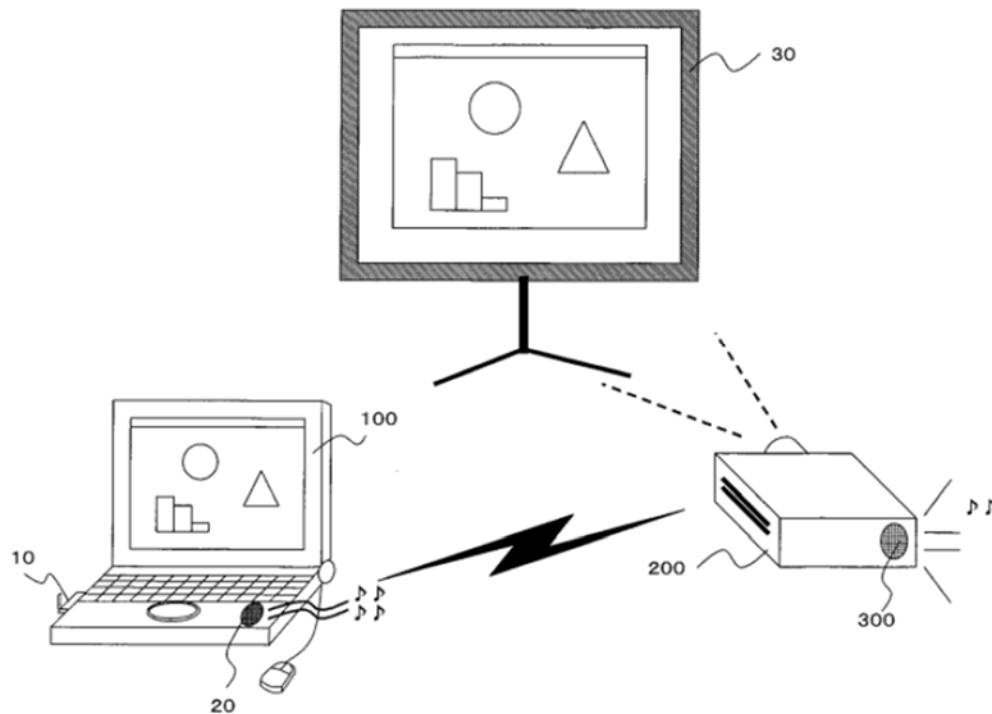
Accordingly, the Petition’s argument fails for at least this limitation.

IV. GROUND 2

Ground 2, like Ground 1, fails to render all elements of the challenged claims obvious. Ex. 2004, ¶¶91, 94. Ground 1 is based on a combination of *Maeda* and *Deforche*. A POSITA would not be motivated to combine the teachings of *Maeda* and *Deforche*, as *Maeda* is directed towards a system which requires custom software installation to function. Ex. 2004, ¶92. Meanwhile, *Deforche* discourages use of installed custom software, and instead provides a zero-footprint implementation of a wireless modem. A POSITA would not be motivated to make changes to *Maeda* based on *Deforche* when *Maeda* does not teach implementation of a zero-footprint system. Further, neither *Maeda* nor *Deforche* establish communication of audio data or video data via a human interface device. Ex. 2004, ¶93.

A. *Maeda* (Ex. 1031)

The primary reference of this ground, the English translation of JP Patent Application Publication No. 2007-208606 (“*Maeda*”), provides a video transmission system where a PC is used to generate an image and audio, which are then transmitted to a projector using a wireless LAN. Ex. 1031, ¶15; Ex. 2004, ¶64. The transmission system includes a projector 200 with a speaker 300, a screen 30, a wireless LAN card 10 containing a wireless LAN chip attached to the PC 100:



Ex. 1031, Fig. 1; Ex. 2004, ¶64.

The PC 100 includes multiple “functional components,” which a POSITA would understand to include software components. Ex. 1031, ¶22; Ex. 2004, ¶65. They include a control unit, a screen generation unit, an image capture unit, an audio generation unit and image output unit, an audio output unit, a PC communication unit, and an audio capture unit. Ex. 1031, ¶22; Ex. 2004, ¶65.

B. Deforche (Ex. 1030)

The second secondary reference, EP Patent Application Publication No. 2107463 (“*Deforche*”), describes a system that provides *a wireless modem* without the need of installing specialized drivers. Ex. 1030, ¶4; Ex. 2004, ¶66. Previously, a user needed to install proprietary drivers before they can use a USB network

device. Ex. 1030, ¶30; Ex. 2004, ¶66. *Deforche* advocates for “zero footprint” solutions which avoid the end user needing administrator rights on the computer and provides the user with connectivity without interfering on the PC itself. Ex. 1030, ¶¶28-29; Ex. 2004, ¶66. *Deforche* does not describe the transmission of audio or video data but instead is focused on connecting a computer device to a wireless communication network via a modem. Ex. 1030, ¶6; Ex. 2004, ¶66.

C. The Petition Articulates No Motivation To Combine Maeda and Deforche

The Petition does not articulate a single motivation to combine *Maeda* with *Deforche* in its “Rationale To Combine” section. Petition, 41-42. Instead, the Petition notes that “Maeda’s disclosure, however, does not discuss presenting a peripheral device to the processing device as a ‘human interface device’” and that “it would have 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 for audio/video data.” *Id.* The Petition merely identifies where *Maeda* is insufficient, and alleges that a POSITA would combine *Maeda* with *Deforche* for the very purpose of meeting the admitted deficiency. *Id.* In other words, at best, the Petition’s allegations amount to nothing beyond a broad circular allegation that each element is known. Such an argument is insufficient.

KSR Int. Co. v. Teleflex Inc., 550 U.S. 398, 418-19 (2007) (“[A] patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.”); *Virtek*, 97 F.4th at 888 (“That is an error as a matter of law. It does not suffice to simply be known. A reason for combining must exist.”).

The Petition, with respect to the limitations of ’237 Patent, alleges that “[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.” Petition, 51 (arguing limitation 1(b)). To the extent the Petition later alleges this provides a motivation to combine, they are incorrect. *See infra* Section IV.D.

D. A POSITA Would Not Be Motivated to Combine *Maeda* and *Deforche* with a Reasonable Expectation of Success

Maeda is a system for image and audio transmission which relies on installation of software. Ex. 1031, Abstract; Petition, 51 (arguing that it would be obvious to use Deforche’s teachings to “avoid the need for a user to install a separate driver for a wireless peripheral device”). Meanwhile, *Deforche* teaches the use of a zero-footprint implementation for wireless modem communications. Ex. 1030. ¶¶28-29. A POSITA would not consider combining a reference that relies on

specific drivers and software, both of which need to be installed, with a system that actively avoids them. Ex. 2004, ¶95.

1. *Deforche's System is Zero-Footprint*

Deforche is designed to be a zero-footprint system. Ex. 1030, ¶¶4, 28; Ex. 2004, ¶96. A system is zero-footprint when it provides functionality without the need of installing new drivers and/or other software applications. Ex. 1030, ¶28; Ex. 1001, 12:65-13:3. *Deforche* recognizes that “[i]t is a disadvantage of existing wireless modem devices that users cannot use them on a foreign computer device... [where] the user has no administrator rights and installation of the appropriate driver is not allowed.” Ex. 1030, ¶3; Ex. 2004, ¶96. So, *Deforche* provides “a wireless modem device and a method for operating same, with which the need for installation of an appropriate driver can be avoided.” Ex. 1030, ¶4; Ex. 2004, ¶96. By using pre-installed generic drivers, *Deforche's* system provides “the advantage that a user can use the wireless modem device on a computer device on which he has no administrative rights, i.e., a computer device on which his user rights are restricted so that he cannot install specific driver for the wireless modem device[.]” Ex. 1030, ¶9; Ex. 2004, ¶97. While *Deforche* also contemplates a modem which uses a custom USB modem driver, *Deforche's* zero-footprint design (which does not require installation of specialized drivers but instead utilizes pre-installed generic drivers) is

the sole embodiment of *Deforche* relied on by the Petition. *See* Petition, 49-51; Ex. 2004, ¶97.

In this implementation, *Deforche*'s modem is designed to present itself as a USB composite device which includes a mass storage device and human interface device. Ex. 1030, ¶36; Ex. 2004, ¶98. In some situations, *Deforche* relies on portable applications which run from the modem device without needing to be installed on the host. Ex. 1030, ¶¶15, 50; Ex. 2004, ¶98. However, it is clear that the relied-on system is designed to avoid installation of proprietary or custom software and drivers. Ex. 1030, ¶¶4, 28; Ex. 2004, ¶98. Therefore, a POSITA would not consider combining *Deforche* with systems which require proprietary or custom software or drivers to function. Ex. 2004, ¶98.

2. Maeda Requires Installation of Software

Maeda is not a zero-footprint system. Ex. 2004, ¶99. *Maeda*'s system has a functional configuration to provide the image transmission system. Ex. 1031, ¶21; Ex. 2004, ¶99. This functional configuration “includes a control unit 121, a screen generation unit 122, an image capture unit 123, an audio generation unit 124, an image output unit 125, an audio output unit 126, a PC communication unit 127, and an audio capture unit 128 as functional components.” Ex. 1031, ¶22; Ex. 2004, ¶99. Each of these “functional components” are implemented as software rather than hardware. Ex. 2004, ¶100; Ex. 1002, ¶130 (Dr. Almeroth opining that *Maeda* could

be improved if “a user *is not* required to install a separate driver or configure any setting for peripheral device functionality.”).

The functional components of this system “can be *applied* to a system that transmits images and audio from an image generation device such as a PC to an image projection device such as a projector[.]” Ex. 1031, ¶78; Ex. 2004, ¶100; Ex. 1002, ¶130. So, while it can be implemented on a traditional PC, the system must be applied, or as a POSITA would understand this term, installed, to function. Ex. 1031, ¶78; Ex. 2004, ¶100. In its reply, the Petitioner may argue that the “functional components” of *Maeda* do not need to be installed. However, the Petition has not provided evidence that these functional modules are available on a generic computer. Ex. 2004, ¶100. Indeed, the Petition relies on *Maeda*’s “image generation device” to generate images and audio but provides no evidence that such device is pre-installed onto a system. Petition, 52.

To the extent the Petition alleges a POSITA would implement *Maeda* relying only on pre-installed components, the Petition has not met their burden. In order to do so, the Petition would need to explain how each of the functional components are implemented or can be implemented as hardware (not requiring custom software) or pre-installed software. Without doing so, there is no basis to conclude a POSITA would combine *Maeda* and *Deforche*.

E. The *Maeda-Deforche* Combination Does Not Teach Communicating Audio Or Display Data Via the Human Interface Device

Claim 1 of the '237 Patent requires “communicating at least one of audio data and display data from the processing device to the external peripheral device via the human interface device[.]” Ex. 1001, Cl.1. Similar limitations can also be found in Claims 9, 18, and 19. Ex. 1001, Cls. 9, 18, 19. *Maeda* and *Deforche*, alone or in combination, are insufficient with respect to this limitation. Ex. 2004, ¶101.

Maeda does not describe communicating either audio data or display data via a human interface device. Ex. 2004, ¶102. There is no disclosure of a human interface device in *Maeda* at all; rather, it uses specific special purpose drivers and software. Ex. 2004, ¶102; *see generally*, Ex. 1031. The Petition agrees that *Maeda* “does not discuss presenting a peripheral device to the processing device as a ‘human interface device.’” Petition, 41. Accordingly, *Maeda* does not teach communicating audio data or display data *via* a human interface device, nor would a POSITA reading *Maeda* even find this to be possible. Ex. 2004, ¶102.

Likewise, *Deforche* does not teach this limitation. Ex. 2004, ¶103. *Deforche* does not mention display data or audio data. Ex. 2004, ¶103; *see generally*, Ex. 1030. *Deforche* instead aims to provide a wireless modem device, which does not need to install additional drivers. Ex. 1030, ¶4; Ex. 2004, ¶103. So, *Deforche* also does not teach communicating audio data or display via a human interface device.

Ex. 2004, ¶103. *Maeda* does not reference a human interface driver at all, and *Deforche* fails to motivate a POSITA to modify *Maeda* to use a human interface driver, let alone to use one to transmit audio data and display data. Ex. 2004, ¶103.

The *Maeda-Deforche* combination also does not teach communication of audio data and display data via the human interface device. Ex. 2004, ¶104. For this limitation, the Petition relies on *Maeda*'s disclosure of video and audio data communications. Petition, 51-52 (citing Ex. 1031, ¶¶15, 17, 19). The Petition and Dr. Almeroth provide ***no evidence*** that audio data or video data are shared over a human interface device, could be shared over a human interface driver, or otherwise articulate any basis why a POSITA would have any expectation of successfully implementing such a system over a human interface driver. Petition, 51-52; Ex. 1002, ¶146; Ex. 2004, ¶104. There is simply no evidence basis for why a POSITA would combine *Maeda* and *Deforche* to communicate data this way. Ex. 2004, ¶104.

Indeed, Dr. Almeroth himself has opined that depending on the type of data used, different steps need to be taken to communicate the data. *See* Ex. 2030, ¶¶212-213 (Dr. Almeroth opining that “different data types require different methods of scaling, transcoding, or mixing... based on the type of data it is” and that “[a] POSA would recognize and understand that codecs... are specific to data type, such as whether the data being compressed, decompressed, encoded, or decoded is audio data, visual data, etc.”). The Petition's assumption that ***presenting*** as a human

interface device also results in *communicating audio data or display data* via the human interface device is unfounded.

Accordingly, the Petition's argument fails for at least this limitation.

V. EVIDENCE ESTABLISHES NON-OBVIOUSNESS OF THE INVENTION

A determination of obviousness requires determination of (1) the scope and content of the prior art; (2) the difference between the claims and the prior art; (3) the level of ordinary skill in the art; and (4) the presence of evidence of secondary considerations. *See Graham v. John Deere Co. of Kan. City*, 383 U.S. 1, 17-18 (1966). These secondary considerations include commercial success, industry praise, unexpected results, copying, industry skepticism, licensing, and long-felt but unsolved need. *Transocean Offshore Deepwater Drilling, Inc. v. Maersk Drilling USA, Inc.*, 699 F.3d 1340, 1349 (Fed. Cir. 2012). When evidence of secondary considerations is present, it must be considered by the Board. *Nike, Inc. v. Adidas AG*, 812 F.3d 1326, 1340 (Fed. Cir. 2016) (“We must therefore remand for the Board to examine Nike’s evidence and its impact, if any, on the Board’s analysis under the first three *Graham* factors.”). Patent Owners must show a sufficient nexus between the objective evidence and the claimed invention, but objective evidence “need only be reasonably commensurate with the scope of the claims[.]” *Rambus Inc. v. Rea*, 731 F.3d 1248, 1256, 1257 (Fed. Cir. 2013) (internal quotation marks and citation

omitted). A nexus is presumed when “the patentee shows that the asserted objective evidence is tied to a specific product and that product ‘embodies the complained features, and is coextensive with them.’” *Polaris Indus. V. Arctic Cat, Inc.*, 882 F.3d 1056, 1072 (Fed. Cir. 2018) (citing *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1130 (Fed. Cir. 2000)). Here, the proffered secondary considerations are based on both Barco’s patent practicing product as well as its competitors’ licensing activities.

“Licenses to the challenged patent then, unlike products or other forms of objective evidence of nonobviousness, do not require a nexus with respect to the specific claims at issue, nor does our nexus law require that a particular patent be the only patent being licensed or the sole motivation for entering into a license.” *Ancora Techs., Inc. v. Roku, Inc.*, No. 2023-1674, 2025 WL 1679967, at *7 (Fed. Cir. June 16, 2025). Moreover, “the fact that a license concerns rights to more than one patent does not detract from the fact that each patent is a subject of the license.” *Id.* at *8. Where “other patents may have also been part of the license [it] does not detract from the nexus inquiry. These licenses, taken by substantial parties paying substantial royalties to secure the right to practice the [challenged] patent, should have been given more, *if not controlling*, weight in the Board's obviousness determination” *Id.* at *9.

A. The Barco System Embodies the Claimed Invention

Patent Owner need not show “a perfect correspondence” between the claim invention and the commercial product. *Fox Factory Inc., v. SRAM LLC*, 944 F.3d 1366, 1374 (Fed. Cir. 2019). Instead, the Patent Owner must show that the product is essentially the claimed invention. *Id.*, (citing *Demarco Corp., v. F. Von Langsdorff Licensing, Ltd.*, 851 F.2d 1387, 1392 (Fed. Cir. 1988)). Patent Owner provides a system for wireless presentation, which embodies claims of the '237 Patent. Ex. 2013. Patent Owner identifies the '237 Patent as practiced by the ClickShare Products on its website. Ex. 2017, 9. The Clickshare line involves the ClickShare Button (“ClickShare Button”) and a number of components capable of receiving communications from the ClickShare including the C-5, C-10, CX-20, CX-30, CX-50, CX-50 Gen2, CB Core, and CB Pro (“Barco Bases”). Together, ClickShare Button and a Barco Base form the Barco System.

The ClickShare marketing materials illustrate that the Barco System is essentially the claimed invention. *See generally* Ex. 2013; Ex. 2014. The features and benefits the '237 Patent's claims provide are evident in the Barco System. For example, “[a]nyone can use the Button, both employees and guests, both on Windows and Mac... No *installation* or training needed.” Ex. 2014, 3. Likewise, the ClickShare “connects your laptop to the audio and video equipment of your conference room,” as noted in each independent claimed of the '237 Patent. Ex.

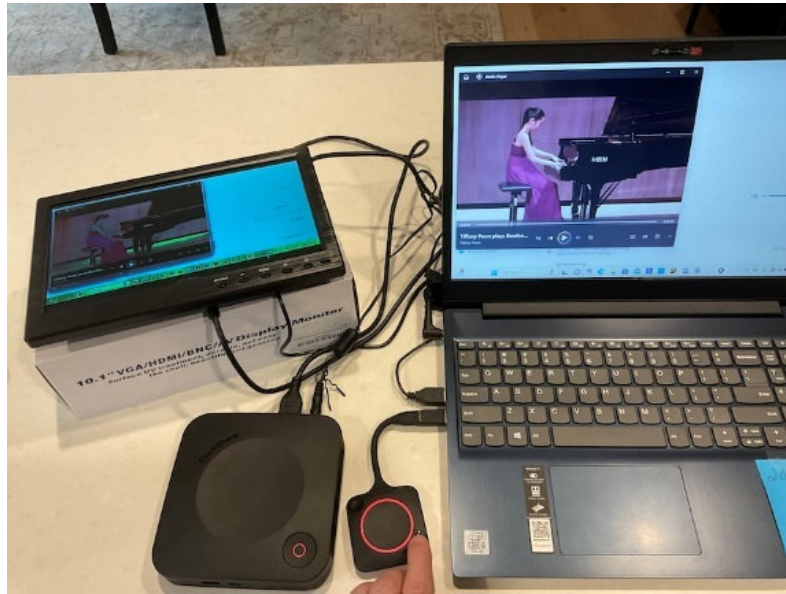
2013, 1; *see e.g.*, Ex. 1001, Cl. 1 (“communicating at least one of audio data and display data from the processing device to the external peripheral device”). The relationship between the claims of the ’237 Patent and the Barco System are clear. *See Demarco*, 851 F.2d at 1394 (“A requirement for proof of the negative of all imaginable contributing factors would be unfairly burdensome.”). As is clear from the images of the products below, there is essentially no unclaimed feature in the accused products.

The Barco System practices at least claims 1, 3, 9, 18, and 19 of the ’237 Patent. Ex. 2004, ¶¶105-128.

1. 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:

The Barco System provides 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 devices and a class of peripheral devices. Ex. 2004, ¶106. For example, the ClickShare Button connects to the processing device to communicate audio and display data as shown below:



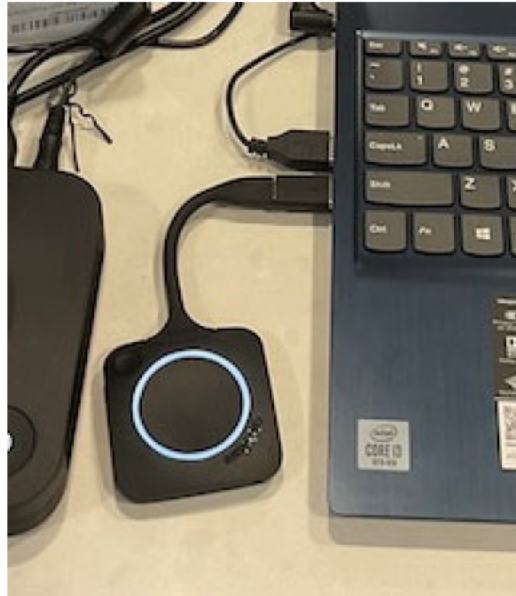
Ex. 2004, ¶107.

Processing devices, like laptop computers, include a memory, display, operating system, and communications between the processing device and peripheral device. Ex. 2004, ¶108.

- 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, and presenting the external peripheral device to the processing device as a human interface device;

The Barco system includes ClickShare Button, which can be coupled 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, and present the external peripheral device to the processing device as a human

interface device. Ex. 2004, ¶109. Clickshare Button can couple to a port of the processing device as shown in the image below:



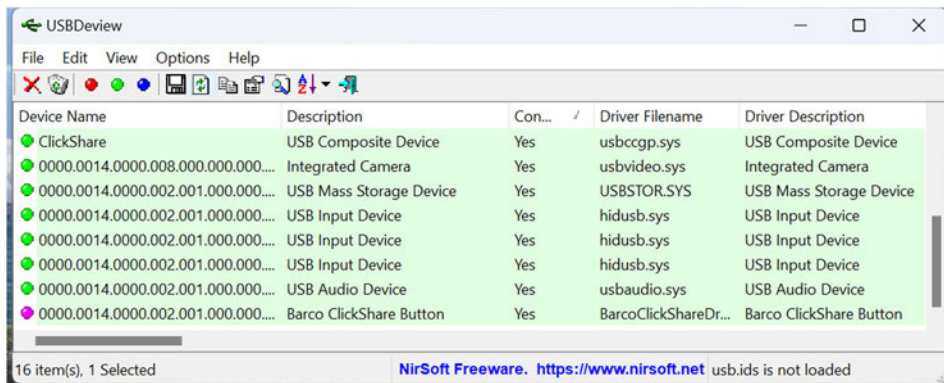
Ex. 2004, ¶110. As noted below, Clickshare Button includes a USB-C type connector and a wireless transceiver capable of transmission of IEEE 802.11 a/b/g/n/ac:

General specifications

Connectors	USB-C type
Authentication protocol	WPA2-PSK in stand alone mode WPA2-PSK or IEEE 802.1X in network integration mode
Wireless transmission protocol	IEEE 802.11 a/b/g/n/ac
Frequency band	2.4 GHZ and 5 GHz

Ex. 2014; Ex. 2004, ¶111.

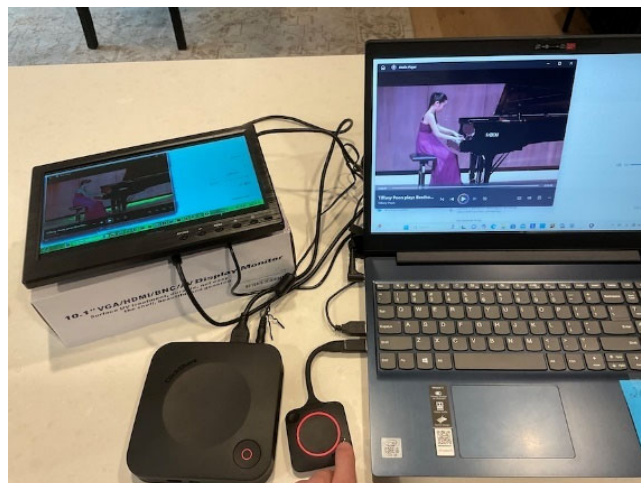
ClickShare Button also presents itself to the processing device as a number of devices, including a human interface device:



Ex. 2004, ¶¶112-113.

- c. 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;

The Barco System communicates at least one of audio data and display data from the processing device to the external peripheral device via the human interface device. Ex. 2004, ¶114. For example, in the image below, both the display data and audio data are shared on the monitor coupled to the Barco Base:



Ex. 2004, ¶115. The display data is communicated using the human interface device identified in Section V.A.1.b. Ex. 2004, ¶116. When the input devices identified in

the USBDeview tool are disabled using the USBDeview tool, ClickShare Button is unable to share display data. Ex. 2004, ¶116. When the audio devices or mass storage devices are disabled using the USBDeview tool, the display data is still communicated. Ex. 2004, ¶116.

- d. c) reading the audio data from the port,

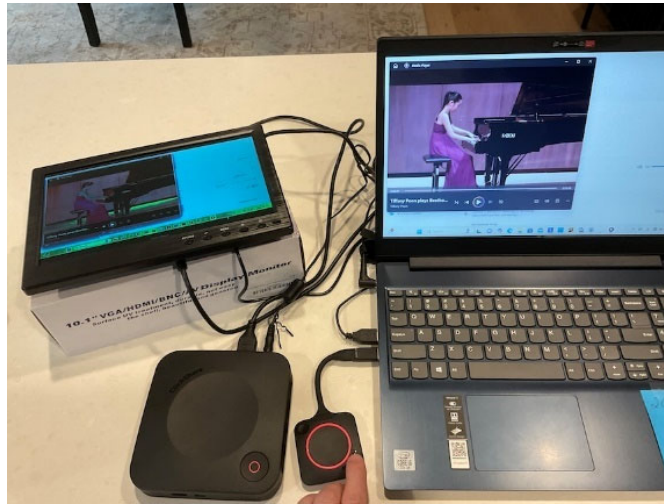
The Barco System reads data from the port as shown in Section V.A.1.c. Ex. 2004, ¶¶117-118.

- e. d) connecting the processing device to a communications network via the transceiver, and

The Barco system is connected to the communications network via the transceiver of ClickShare Button. Ex. 2004, ¶119. This is shown by the sharing of content wirelessly to the Barco Base when the laptop connected to ClickShare Button is not connected to any other networks. Ex. 2004, ¶¶119-121.

- f. 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.

The Barco System routes the audio data and display data between the processing device and communications network via the transceiver and further to the base node. Ex. 2004, ¶122. This is shown by the content being shared in the image below:

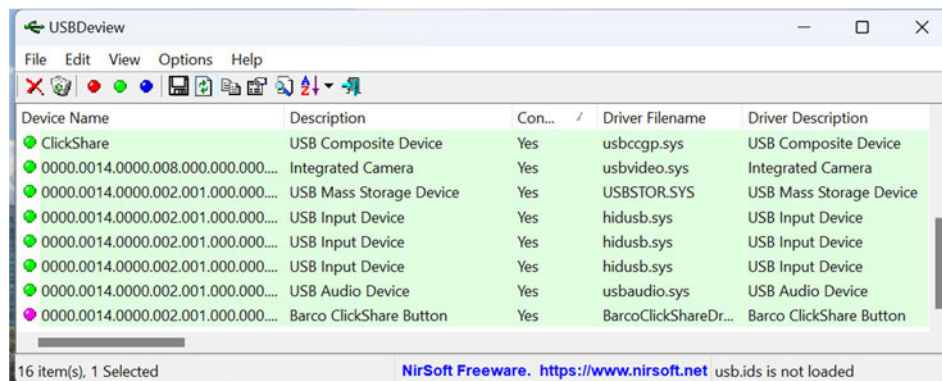


Ex. 2004, ¶123.

2. Claim 3

- a. The method of claim 1, further comprising presenting the external peripheral device to the processing device as any of the following: a mass storage device; and a composite device.

The Barco system also presents the external peripheral device to the processing device as a mass storage device and a composite device. Ex. 2004, ¶124. For example, both a mass storage device and a composite device are depicted in the ClickShare Button devices presented below:



Device Name	Description	Con...	Driver Filename	Driver Description
ClickShare	USB Composite Device	Yes	usbccgp.sys	USB Composite Device
0000.0014.0000.008.000.000.000....	Integrated Camera	Yes	usbvideo.sys	Integrated Camera
0000.0014.0000.002.001.000.000....	USB Mass Storage Device	Yes	USBSTOR.SYS	USB Mass Storage Device
0000.0014.0000.002.001.000.000....	USB Input Device	Yes	hidusb.sys	USB Input Device
0000.0014.0000.002.001.000.000....	USB Input Device	Yes	hidusb.sys	USB Input Device
0000.0014.0000.002.001.000.000....	USB Input Device	Yes	hidusb.sys	USB Input Device
0000.0014.0000.002.001.000.000....	USB Audio Device	Yes	usbaudio.sys	USB Audio Device
0000.0014.0000.002.001.000.000....	Barco ClickShare Button	Yes	BarcoClickShareDr...	Barco ClickShare Button

16 item(s), 1 Selected NirSoft Freeware. <https://www.nirsoft.net> usb.ids is not loaded

Ex. 2004, ¶125.

3. Claim 9

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

This limitation is practiced for the Barco System as shown *supra* Section V.A.1.a. Ex. 2004, ¶126.

- b. a) means for 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;

This limitation is practiced for the Barco System as shown *supra* Section V.A.1.b. Ex. 2004, ¶126.

- c. b) means for presenting the external peripheral device to the processing device as a human interface device;

This limitation is practiced for the Barco System as shown *supra* Section V.A.1.b. Ex. 2004, ¶126.

- d. c) means for at least one of display data communication and audio communication between the external peripheral device and the processing device via the human interface device;

This limitation is practiced for the Barco System as shown *supra* Section V.A.1.c. Ex. 2004, ¶126.

- e. wherein the external peripheral device is configured to connect the processing device to a communications network via the transceiver; and

This limitation is practiced for the Barco System as shown *supra* Section V.A.1.e. Ex. 2004, ¶126.

- f. d) means for routing display data and audio data between the processing device and the communication network via the means for display data and audio data communication and the transceiver to a base node.

This limitation is practiced for the Barco System as shown *supra* Section V.A.1.d and V.A.1.f. Ex. 2004, ¶126.

4. Claim 18

- a. A peripheral device for providing communication connectivity to a processing device which is provided with memory, a display and an operating system and for communication between the processing device and a class of peripheral devices, the peripheral device comprising a connection configured to be physically coupled to a port of the processing device and the peripheral device being adapted to work with executable software code, said executable software code comprising:

This limitation is practiced for the Barco System as shown *supra* Sections V.A.1.a-V.A.1.b. Ex. 2004, ¶127.

- b. a fourth software code for presenting the external peripheral device to the processing device as a human interface device;

[REDACTED]

This limitation is practiced for the Barco System as shown *supra* Section V.A.1.b. Ex. 2004, ¶127.

- c. a first software code portion for setting up, a means for at least one of display data communication and audio data communication between the peripheral device and the processing device via the human interface device;

This limitation is practiced for the Barco System as shown *supra* Section V.A.1.c. Ex. 2004, ¶127.

- d. a second software code portion for connecting the processing device to a communications network via a transceiver of the external peripheral device;

This limitation is practiced for the Barco System as shown *supra* Section V.A.1.e. Ex. 2004, ¶127.

- e. a third software code portion for routing the display data and the audio data between the processing device and the communication network via the transceiver to a base node.

This limitation is practiced for the Barco System as shown *supra* Section V.A.1.d and V.A.1.f. Ex. 2004, ¶127.

5. Claim 19

- a. A method for connecting a processing device to a communications network, the processing device having a memory, a display and an operating system, the method comprising:

[REDACTED]

This limitation is practiced for the Barco System as shown *supra* Section V.A.1.a. Ex. 2004, ¶128.

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

This limitation is practiced for the Barco System as shown *supra* Section V.A.1.b. Ex. 2004, ¶128.

- c. b) presenting the external peripheral device to the processing device as a human interface device;

This limitation is practiced for the Barco System as shown *supra* Section V.A.1.b. Ex. 2004, ¶128.

- d. c) setting up one of an audio communication between the peripheral device and the processing device and a display data communication between the peripheral device and the processing device via the human interface device;

This limitation is practiced for the Barco System as shown *supra* Section V.A.1.c. Ex. 2004, ¶128.

- e. d) the peripheral device being configured to connect the processing device to a communications network via the wireless transceiver;

This limitation is practiced for the Barco System as shown *supra* Section V.A.1.e. Ex. 2004, ¶128.

- f. e) routing audio data from the processing device to the wireless transceiver via the connector of the peripheral device and the audio communication and routing display data from the processing device to the wireless transceiver via the connector of the peripheral device and the display data communication;

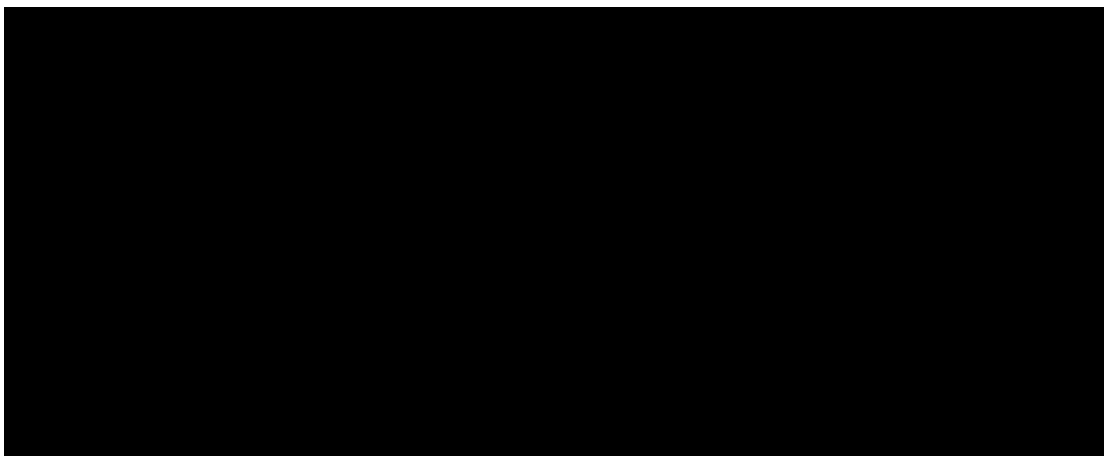
This limitation is practiced for the Barco System as shown *supra* Section V.A.1.d-V.A.1.e. Ex. 2004, ¶128.

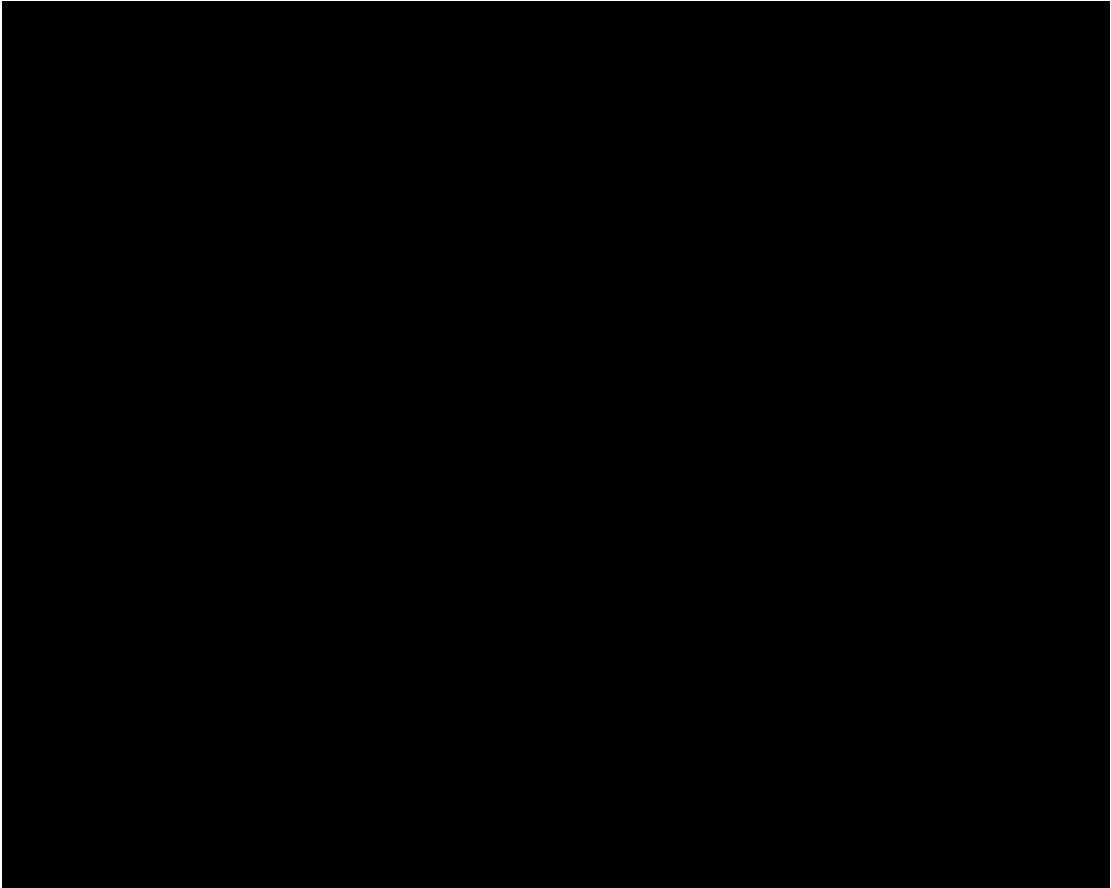
- g. f) routing the display data and the audio data from the wireless transceiver of the peripheral device to a base node over the communications network via at least one channel created between the external peripheral device to the base node

This limitation is practiced for the Barco System as shown *supra* Section V.A.1.d-V.A.1.e. This information would be routed over a channel. Ex. 2004, ¶128.

B. The Barco System Has Achieved Significant Commercial Success

The commercial success of the Barco Practicing System is demonstrated by the United States Net Sales Annual Totals for the ClickShare product line:





Ex. 2010.

Over this period, Patent Owner has  in revenue and  in profit in the United States from its commercialization of the invention claimed in the '237 Patent. Ex. 2010. Patent Owner's commercial success using its patented invention is strong evidence that the claims of the '237 Patent are nonobvious.

² The Provided Financial Data is through Q3 of 2024.

C. Acquiescence of Market Competitors

Crestron is a licensee of the '237 Patent. Ex. 2011, 15. Crestron is a sophisticated engineering company, and has been a leading innovator in the commercial and residential control and automation solutions for over 40 years. Ex. 2019. Crestron's sophistication relating to intellectual property is evidenced by their ownership of 460 separate patents in numerous fields including the following CPC codes: electric digital data processing, fixed or movable closures for openings in buildings, vehicles, fences or like enclosures in general, loudspeakers, microphones, gramophone pick-ups or like acoustic, electromechanical transducers, printed circuits, and transmission of digital information. Ex. 2019. Crestron is a competitor of Patent Owner. Ex. 2023, 28:22-29:16.

[REDACTED]

[REDACTED]

[REDACTED] Ex. 2011; Ex. 2023, 58:10-59:17, 66:22-67:7. It is true that the license covers more than just the '237 Patent, it covers the entire Barco Clickshare Portfolio. Ex. 2011, 15. However, “[l]icenses to the challenged patent then, unlike products or other forms of objective evidence of nonobviousness, do not require a nexus with respect to the specific claims at issue, nor does our nexus law require that a particular patent be the only patent being licensed or the sole motivation for entering into a license.” *Ancora. v.*

Roku, 2025 WL 1679967, at *7 (Fed. Cir. June 16, 2025). As Crestron is an industry leader in the presentation space, it is presumed that it performed a significant investigation into the validity and infringement of the patents covered by the license, thereby strengthening the evidentiary value of the Crestron license for the purpose of later proving nonobviousness. *RCA Corp. v. Data General Corp.*, 701 F. Supp 456, 471 (D. Del. 1988), *aff'd*, 887 F.2d 1056 (Fed. Cir. 1989); *B&H Manufacturing Inc. v. Foster-Forbes Glass Co.*, 26 USPQ2d 1066, 1070 (N.D. Ind. 1993) (The Licensees represented major industry players, which was found to be evidence that “they would not have bowed to pressure to take a license without first reaching the conclusion that ultimately litigation would prove futile.”); *see also Columbia Broadcasting Sys. v. Sylvania Elec. Prods., Inc.*, 415 F.2d 719, 728 (1st Cir. 1969), cert denied, 396 U.S. 1061 (1970). Crestron also identifies the patents it licenses on its website. Ex. 2018.

Upon agreeing to the license, Andrew Ludke, the Senior Director of Project Management at Crestron indicate that “Our customers expect fully integrated solutions that make workplace collaboration simple. With this agreement we will bring robust wireless conferencing based on Barco’s ClickShare intellectual property to our popular digital workplace technologies to meet the growing demand for BYOM solutions[.]” Ex. 2012. The license agreement, by Mr. Ludke’s own admission, has been “mutually beneficial”. Ex. 2023, 76:12-18. Given that Crestron

has already paid more than the cost of litigation in licensing, its acquiescence to the validity of Barco's patent portfolio is further evidence of the non-obviousness of the '237 Patent.

Creston is not the only example of acquiescence in the industry. For example, in *Barco, Inc. et al v. Vivitek Corporation et al*, Case No. 4:19-cv-3250 (N.D. Cal. 4/27/2020), another competitor in the industry in 2019 agreed to a Consent Judgment and Permanent Injunction regarding certain patents owned by Patent Owner, including U.S. Patent No. 8,756,348, which is the parent of the '237 Patent. Ex. 1001, Title Page; Ex. 2020, 2; Ex. 2021. Likewise, other competitors, such as Sahara Presentation Systems changed the design of their competing product rather than face liability for patent infringement. Ex. 2021 ("Barco ended its case against Sahara Presentation Systems after obtaining that its Clevershare products were materially redesigned to avoid patent infringement.").

VI. CONCLUSION

For the reasons set forth above, the patentability of all claims of the '237 Patent should be upheld.

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Respectfully submitted,

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Certification of Word Count Under 37 C.F.R. § 42.24(d)

The undersigned hereby certifies that the foregoing contains 11,570 words according to the word count of the word-processing software used to prepare the foregoing.

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CERTIFICATE OF SERVICE

I hereby certify that on July 16, 2025 a true and correct copy of the foregoing was caused to be served on the following counsel of record for Petitioner by electronic mail at the following addresses:

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