

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.,
Petitioner,

v.

BARCO N.V.,
Patent Owner.

IPR2024-01437
Patent 11,403,237 B2

Before MEREDITH C. PETRAVICK, DAVID C. McKONE, and
FREDERICK C. LANEY, *Administrative Patent Judges*.

PETRAVICK, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

A. *Background and Summary*

Yealink (USA) Network Technology Co., Ltd. and Yealink Network Technology Co., Ltd. (“Petitioner”) filed a Petition requesting *inter partes* review of claims 1, 3, 9, 18, and 19 of U.S. Patent No. 11,403,237 B2 (Ex. 1001, “the ’237 patent”). Paper 2 (“Pet.”).

Barco N.V. (“Patent Owner”) did not file a Preliminary Response.

Under 35 U.S.C. § 314(a), an *inter partes* review may not be instituted unless the information presented in the petition “shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.”

After considering the Petition and the evidence of record, and in the absence of any argument or evidence to the contrary, we determine the information presented shows a reasonable likelihood that Petitioner would prevail in establishing the unpatentability of at least one of the challenged claims of the ’237 patent.

Accordingly, we institute an *inter partes* review of claims 1, 3, 9, 18, and 19 of the ’237 patent on the grounds asserted in the Petition.

B. *Real Parties in Interest*

Petitioner identifies itself as the real party in interest. Pet. 1.

Patent Owner identifies itself as the real party in interest. Paper 3, 2.

C. *Related Matters*

The parties identify *Barco, Inc. et al. v. Yealink (USA) Network Technology Co., Ltd. et al.*, 2:23-cv-521 (ED Tex.) (filed Nov. 14, 2023) as a related court proceeding. Pet. 1; Paper 3, 2.

D. The '237 Patent

The '237 patent, titled “Electronic Tool and Methods with Audio for Meetings,” issued August 2, 2022. Ex. 1001, codes (45), (54). The '237 patent relates to “electronic tools for meetings with audio.” *Id.* at 1:15–16. The '237 patent describes problems “holding a face-to-face meeting using advanced electronic tools,” including complexity of the network infrastructure, high demands on technical expertise of users, great variety of possible collaborative software solutions, time taken to prepare presentations for meetings, and lack of standards for audio, among other problems. *Id.* at 4:46–5:4.

Figure 11 of the '237 patent, shown below, illustrates a schematic representation of a communication system for presentations in which audio has been integrated. Ex. 1001, 15:15–18.

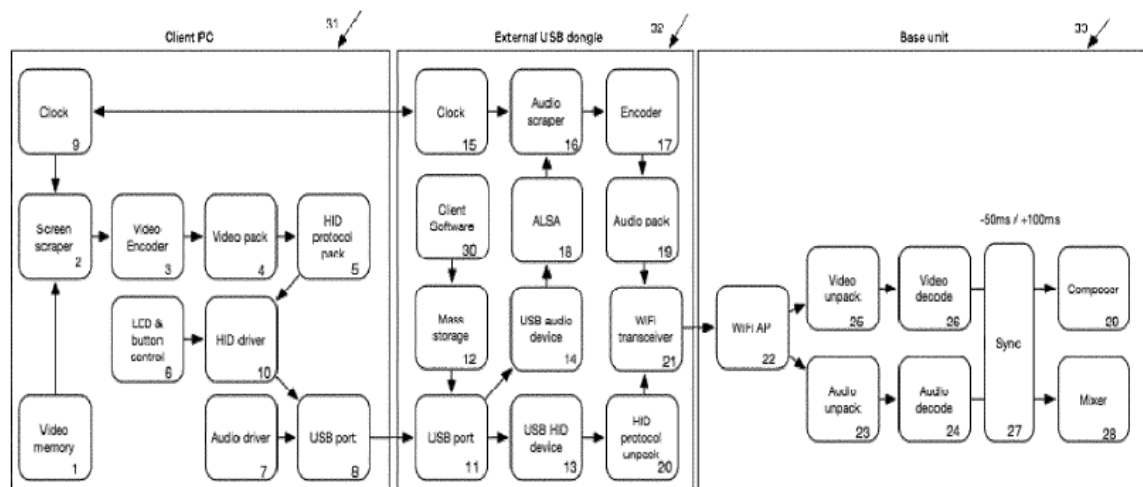


FIG. 11

Figure 11, above, is a schematic illustration containing processing device 31, peripheral device 32, and base unit 33. *Id.* at 11:63–12:1, Fig. 11. The peripheral device can be coupled with the processing device by a “plug and

play interface such as USB [universal serial bus].” *Id.* at 32:1–3. “[G]eneric drivers installed on the processing device make the audio available at the port 8 to the peripheral device 32.” *Id.* at 32:10–11. A pre-installed generic driver is one that “is installed with the installation of the operating system” and “can drive a standard class of peripheral devices coupled to or connected to the processing device.” *Id.* at 14:43–49.

Peripheral device 32 contains port 11. *Id.* at 32:13–14. “[A]udio data is captured at this interface 8-11 internally in the peripheral device 32,” and then this data is “optionally re-encoded and streamed to the communications network to which the peripheral device 32 has access.” *Id.* at 32:15–18. “On the base unit 33 the audio information stream is recovered at a suitable communications interface such as the WiFi access point 22.” *Id.* at 33:28–31.

Processing device 31 also contains software that is executed for processing of video data. *Id.* at 32:31–34. The software “captures the video data that is available on the processing device, e.g. from a presentation or video that is running on the processing device.” *Id.* at 32:42–46. The video is then encoded, packetized, and prepared “for transport over the plug and play interface using a generic driver 10, such as over a USB interface using generic pre-installed drivers.” *Id.* at 32:55–61. The video packets are then received on the peripheral device at port 11, unpacked, and then “transmitted to the communications network by a transmitter 21.” *Id.* at 32:63–33:1.

E. Illustrative Claims

Petitioner challenges claims 1, 3, 9, 18, and 19 of the ’237 patent. Pet. 2. Of the challenged claims, claims 1, 9, 18, and 19 are independent. Ex. 1001, 33:60–36:34. Claim 3 depends from claim 1. *Id.*

Claim 1 is illustrative and is reproduced below, with Petitioner's element labels added in brackets.

1. [1pre] 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:
 - [1a] 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;
 - [1b] presenting the external peripheral device to the processing device as a human interface device
 - [1c] communicating at least one of audio data and display data from the processing device to the external peripheral device via the human interface device;
 - [1d] reading the audio data from the port;
 - [1e] connecting the processing device to a communications network via the transceiver, and
 - [1f] display data and audio data being routed between the processing device and the communication network via the transceiver and further to a base node.

Ex. 1001, 33:60–34:12.

F. Evidence and Asserted Grounds

Petitioner asserts that claims 1, 3, 9, 18, and 19 of the '237 patent would have been unpatentable on the following grounds:

Ground	Claim(s) Challenged	35 U.S.C. §	Basis
1	1, 3, 9, 18, 19	103(a) ¹	Kaplan, ² Mardiks ³
2	1, 3, 9, 18, 19	103(a)	Maeda, ⁴ Deforche ⁵

Petitioner also relies on the Declaration of Dr. Kevin Almeroth (Ex. 1002) to support its analysis.

II. ANALYSIS

A. Legal Standards

“In an IPR, the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable.” *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d, 1356, 1363 (Fed. Cir. 2016) (citing 35 U.S.C. § 312(a)(3) (requiring *inter partes* review petitions to identify “with particularity . . . the evidence that supports the grounds for the challenge to each claim”)); *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015) (discussing the burden of proof in *inter partes* review).

¹ The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112–29, 125 Stat. 284 (Sept. 16, 2011), includes revisions to Sections 102 and 103 that became effective on March 16, 2013. Because the challenged claims issued from an application claiming priority to an application filed before March 16, 2013, we apply pre-AIA law.

² U.S. Patent Application Publication No. US 2010/0295994 A1, published Nov. 25, 2010 (Ex. 1027).

³ U.S. Patent Application Publication No. US 2009/0172219 A1, published July 2, 2009 (Ex. 1026).

⁴ JP 2007-208606 A, published Aug. 16, 2007 (Ex. 1031).

⁵ EP 2107463A2, published Oct. 7, 2009 (Ex. 1030).

A claim is unpatentable under § 103(a) if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). “[W]hen a patent claims a structure already known in the prior art that is altered by the mere substitution of one element for another known in the field, the combination must do more than yield a predictable result.” *KSR*, 550 U.S. at 416 (citing *U.S. v. Adams*, 383 U.S. 39, 50–51 (1966)).

The question of obviousness is resolved on the basis of underlying factual determinations, including (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) when in evidence, objective indicia of non-obviousness (i.e., secondary considerations). *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). Here, the record contains no evidence of objective indicia of non-obviousness.

B. Level of Ordinary Skill in the Art

Petitioner contends that a person having ordinary skill in the art would have had 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. Additional educational experience could substitute for some of the work experience.

Pet. 9 (citing Ex. 1002 ¶¶ 36–37).

For purposes of this Decision, we adopt Petitioner’s proposed definition of a person of ordinary skill in the pertinent art, as it is consistent

with the '237 patent and the asserted prior art. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001).

C. Claim Construction

In an *inter partes* review, we apply the same claim construction standard that would be used in a civil action under 35 U.S.C. § 282(b). 37 C.F.R. § 42.100(b). In applying this standard, we generally give claim terms their ordinary and customary meaning as would be understood by a person of ordinary skill in the art at the time of the invention and in the context of the entire patent disclosure. *See id.*; *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–14 (Fed. Cir. 2005) (en banc).

Petitioner proposes constructions for a number of claim terms. Pet. 9–14. Only those terms in controversy, however, need to be construed, and only to the extent necessary to resolve the controversy. *Realtime Data LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019). For the purposes of determining whether to institute trial or not, we need not construe explicitly any claim term.

D. Ground 1: Obviousness Based on Kaplan and Mardiks

Petitioner contends that claims 1, 3, 9, 18, and 19 are obvious over Kaplan and Mardiks. Pet. 21–41.

1. Overview of Kaplan (Ex. 1027)

Kaplan is titled “Management and Display of Video Content,” and relates to “improved methods and systems for viewing video footage on a display device.” Ex. 1027, code (54), ¶ 4.

Figure 2 of Kaplan, reproduced below, illustrates an exemplary use of a communications system. Ex. 1027 ¶ 11.

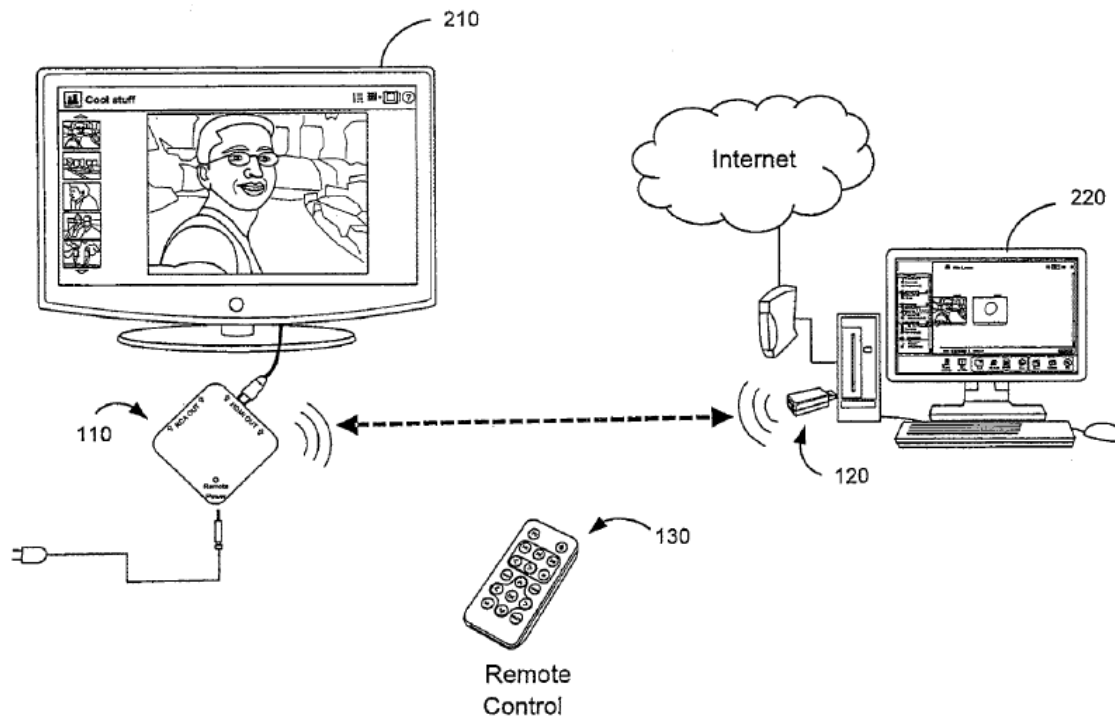


FIG. 2

Figure 2 illustrates a communications system, including receiver 110, transmitter 120, display device 210, and computer 220. *Id.* ¶¶ 21, 26. A user may select a video to be played, which may be transmitted from computer 220 through transmitter 120 to receiver 110 for display on display device 210. *Id.* ¶ 28.

Transmitter 120 may be a dongle with a USB connector, inserted into a USB port of a computer. *Id.* ¶ 17. The transmitter includes the ability to both transmit and receive data from receiver 110. *Id.*

2. Overview of *Mardiks* (Ex. 1026)

Mardiks is titled “Device and Method for Automatically Launching Applications Residing on USB Flash Drives,” and relates to a USB

peripheral device that “may automatically launch an application residing in its memory after it is connected to a host.” Ex. 1026, codes (54), (57).

Figure 1A of Mardiks, reproduced below, illustrates a USB peripheral device and its environment. Ex. 1026 ¶ 14.

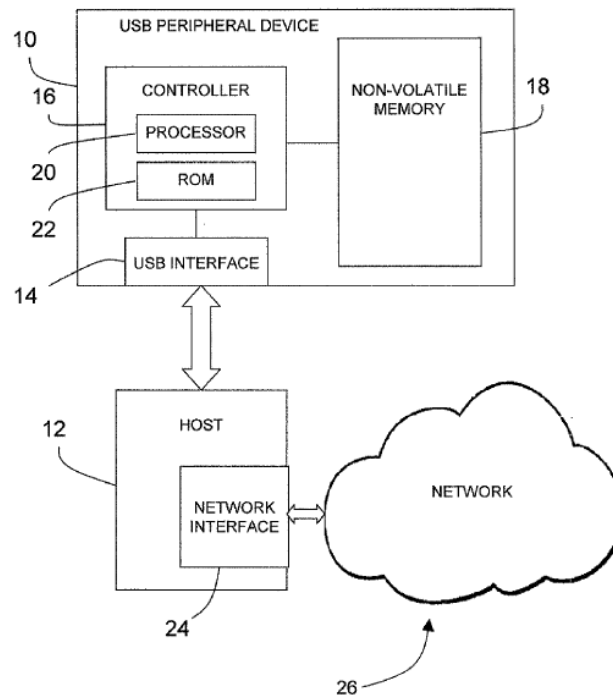


Fig. 1A

Figure 1A illustrates an embodiment of USB peripheral device 10, which is able to control host 12. *Id.* ¶ 19. USB peripheral device 10 includes USB interface 14, controller 16, and non-volatile memory 18. *Id.* The controller 16 executes instructions for sending and receiving messages through USB interface 14. *Id.*

3. Independent Claim 1

Petitioner contends that claim 1 is unpatentable as obvious over Kaplan and Mardiks. Pet. 22–34. Petitioner provides a detail mapping of the teachings of Kaplan and Markis to the elements of claim 1. *Id.*

[1pre] 1. 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 that claim 1's preamble is limiting,⁶ Petitioner contends that Kaplan discloses connecting computer 220 (i.e., a processing device) to a communications network with transmitter 120 (i.e., a peripheral device). Pet. 22–24 (citing Ex. 1027 ¶¶ 5–9, 16–18, 23, 57–61, Figs. 2, 6; Ex. 1002 ¶¶ 89–90).

On this record, and absent any argument of evidence to the contrary, we determine that Petitioner's evidence and analysis sufficiently shows that Kaplan discloses element 1pre.

[1a] 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;

Petitioner contends that Kaplan's transmitter 120 has a transceiver 450 and USB connector 122. Pet. 24–26 (Ex. 1027 ¶ 21 (“[T]ransmitter 120 is inserted into the USB port of a computer.”), FIG. 2; Ex. 1002 ¶ 92) USB connector 122 couples transmitter 120 to computer 220. *Id.*

On this record, and absent any argument or evidence to the contrary, we determine that Petitioner's evidence and analysis sufficiently shows that the combination of Kaplan discloses element 1a.

⁶ At this stage of the proceeding, we do not need to determine whether or not the preamble is limiting because we determine that the Kaplan sufficiently discloses the preamble.

[1b] presenting the external peripheral device to the processing device as a human interface device

Petitioner contends that Kaplan's transmitter 120 initially presents itself to computer 220's operating system as a removable disk drive. Pet. 26–27 (citing Ex. 1027 ¶¶ 46–52, 58–60; Ex. 1002 ¶ 94). Petitioner argues:

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, ¶94). When detected, Kaplan discloses that the “autoplay.inf” file directs the operating system of the computer 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, ¶94).

Pet. 26–27.

Petitioner acknowledges that “Kaplan does not explicitly disclose presenting the transmitter 120 as a human interface device (HID).” *Id.* at 27.

Petitioner asserts Mardik teaches presenting a USB peripheral device to a computer as a human interface device, such as a keyboard. *Id.* at 27–28 (citing Ex. 1026 ¶ 5–7, 18–20, 27–20; Ex. 1002 ¶¶ 96–97). “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.’” Pet. 28 (citing Ex. 1026 ¶ 28; Ex. 1002 ¶ 97). Mardiks discloses that “a stream of emulated keystrokes is sent from the USB peripheral device to the host. The emulated keystrokes sent cause the host to generate and execute a startup script, as if a user were to manually type the corresponding keystroke on a keyboard.” Ex. 1026 ¶ 30.

Petitioner contends that “[it] would have . . . 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." Pet. 22 (citing Ex. 1002 ¶ 87). Petitioner, additionally, contends that "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." *Id.*

On this record, and absent any argument or evidence to the contrary, we determine that Petitioner's evidence and analysis sufficiently shows that it would have been obvious to a POSITA to modify Kaplan so as to present its transmitter 120 to computer 220 as a human interface device, as taught by Mardiks, in order to automatically launch a stored application for transmitting audio/visual data to a wireless network. We, thus, determine that Petitioner's evidence and analysis sufficiently shows that the combination of Kaplan and Mardiks discloses element 1b.

[1c] communicating at least one of audio data and display data from the processing device to the external peripheral device via the human interface device;

Referencing its analysis for element 1b, Petitioner contends that "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.*" Pet. 30 (citing Ex. 1002 ¶ 102).

On this record, and absent any argument or evidence to the contrary, we determine that Petitioner's evidence and analysis sufficiently shows that the combination of Kaplan and Mardiks discloses element 1c.

[1d] reading the audio data from the port;

Petitioner contends that Kaplan's transmitter 120 transmits data, which includes video and audio data. Pet. 31 (citing Ex. 1027 ¶ 20; Ex. 1002 ¶ 103). Petitioner asserts that "[a] POSITA would have understood the transmitter 120 must 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." Pet. 31 (citing Ex. 1027 ¶¶ 17, 28, FIGs 1, 4; Ex. 1002 ¶ 103).

On this record, and absent any argument or evidence to the contrary, we determine that Petitioner's evidence and analysis sufficiently shows that Kaplan discloses element 1d.

[1e] connecting the processing device to a communications network via the transceiver, and

Petitioner contends that Kaplan connects computer 220 to the network by transmitter 120's transceiver 450. Pet. 32–33 (citing Ex. 1027, ¶¶ 6, 9, 18, 23, 25, 31, FIG 2; Ex. 1002 ¶ 104).

On this record, and absent any argument or evidence to the contrary, we determine that Petitioner's evidence and analysis sufficiently shows that Kaplan discloses element 1e.

[1f] display data and audio data being routed between the processing device and the communication network via the transceiver and further to a base node.

Petitioner contends that Kaplan routes display and audio data from computer 220 (via transmitter 120's transceiver 450), through the network to receiver 110 (i.e., a base node) of display device 210. Pet. 33–34 (citing Ex. 1027 ¶¶ 2–6, 16–18, 28; Ex. 1002 ¶ 105).

On this record, and absent any argument or evidence to the contrary, we determine that Petitioner’s evidence and analysis sufficiently shows that Kaplan discloses element 1f.

4. Conclusion

After considering Petitioner’s evidence and argument, we determine the information presented shows a reasonable likelihood that Petitioner would prevail in establishing the unpatentability of claim 1 based on the combination of Kaplan and Mardisk (Ground 1).

E. Remaining Claims and Ground 2

“When instituting inter partes review, the Board will authorize the review to proceed on all of the challenged claims and on all grounds of unpatentability asserted for each claim.” 37 C.F.R. § 42.108(a). We must “either (1) institute as to all claims challenged in the petition and on all grounds in the petition, or (2) institute on no claims and deny institution.” Patent Trial and Appeal Board Consolidated Trial Practice Guide (Nov. 2019),⁷ 5–6, 64; *see also* 37 C.F.R. § 42.108(a), *PGS Geophysical AS v. Iancu*, 891 F.3d 1354, 1359–60 (Fed. Cir. 2018) (stating a decision to institute is “a simple yes-or-no institution choice respecting a petition, embracing all challenges included in the petition”).

Because we have decided to grant institution on Ground 1 with respect to claim 1, we must do the same for the remaining claims for Ground 1. Patent Owner at this stage does not raise any arguments specifically directed to the remaining claims of Ground 1.

⁷ Available at <https://www.uspto.gov/sites/default/files/documents/tpgnov.pdf?MURL=TrialPracticeGuideConsolidated>

Further, because we have decided to institute *inter partes* review based on Ground 1, we must do the same for Ground 2 as well, as institution must include all challenged claims under all asserted grounds. We again note that, at this stage, Patent Owner does not raise any arguments specifically directed to Ground 2.

III. CONCLUSION

After considering the evidence and arguments presented in the Petition, and absent any evidence or arguments to the contrary, we determine that the information presented in the Petition shows a reasonable likelihood that Petitioner would prevail in establishing that at least one claim of the '237 patent is unpatentable.

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review is instituted for claims 1, 3, 9, 18, and 19 of the '237 patent on the unpatentability grounds asserted in the Petition; and

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial, which commences on the entry date of this decision.

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