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Paper 49
Entered: March 17, 2016

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MICROSOFT CORPORATION,
Petitioner,

v.

BISCOTTI INC.,
Patent Owner.

Case IPR2014-01459
Patent 8,144,182 B2

Before MICHELLE R. OSINSKI, NEIL T. POWELL, and KEVIN W. CHERRY, *Administrative Patent Judges*.

POWELL, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

I. INTRODUCTION

Microsoft Corporation ("Petitioner") filed a Petition requesting an *inter partes* review of claims 1, 4, 5, and 69–74 of U.S. Patent No. 8,144,182 B2 (Ex. 1001, "the '182 patent"). Paper 1 ("Pet."). On March 19, 2015, we instituted an *inter partes* review as to claims 69–71 and 74. Paper 11. On June 9, 2015, Biscotti Inc. ("Patent Owner") filed a Response. Paper 27 ("PO Resp."). On August 19, 2015, Petitioner filed a Reply. Paper 32 ("Pet. Reply").

An oral hearing was held on November 12, 2015. A transcript of the oral hearing is included in the record. Paper 48 ("Tr.").

We have jurisdiction under 35 U.S.C. § 6(b). This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons that follow, we determine that Petitioner has not shown, by preponderance of the evidence, that claims 69–71 and 74 of the '182 patent are unpatentable.

A. Related Proceedings

Patent Owner has asserted the '182 patent against Petitioner in *Biscotti Inc. v. Microsoft Corp.*, Case No. 2:13-cv-01015-JRG (E.D.Tex.). Pet. 2; Paper 5, 1. The '182 patent also is the subject of petitions filed by Petitioner in the following cases: IPR2014-01457 and IPR2014-01458. Pet. 2.

B. The ’182 Patent (Ex. 1001)

The ’182 patent discloses “tools and techniques for providing video calling solutions.” Ex. 1001, Abst. The ’182 patent shows one video communication system 100 in Figure 1A, reproduced below.

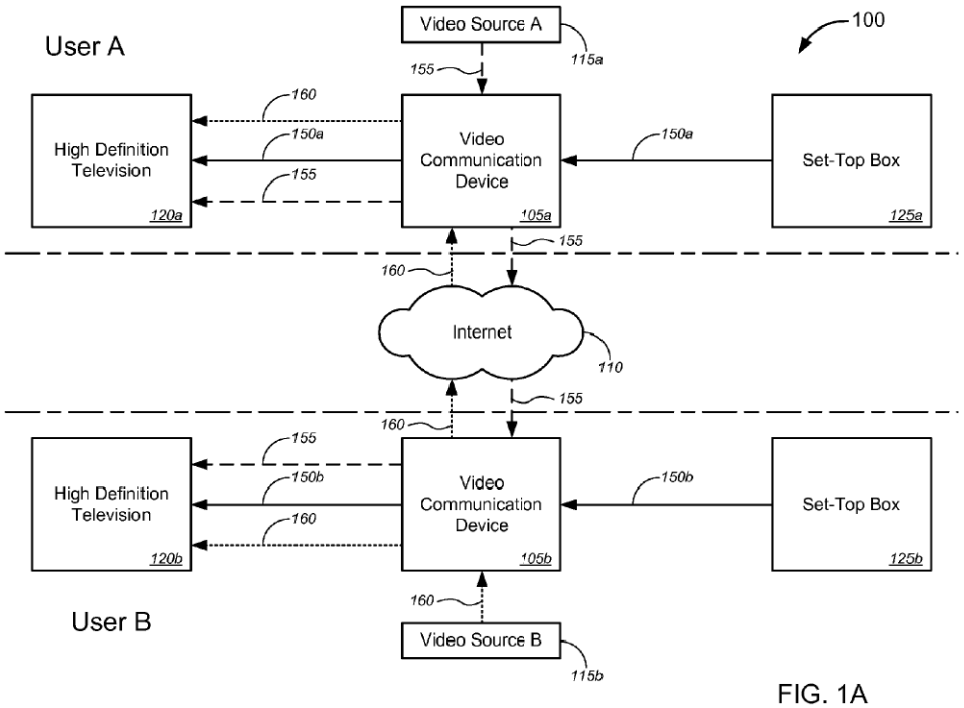

FIG. 1A

Figure 1A shows various components of video communication system 100, including video communication devices 105a and 105b, Internet 110, video sources 115a and 115b, display devices 120a and 120b, and set-top boxes 125a and 125b. *Id.* at col. 5, l. 40–col. 6, l. 13. The ’182 patent discloses that video communication device 105a captures video stream 155 from video source 115a, and that video communication device 105b captures video stream 160 from video source 115b. *Id.* at col. 5, ll. 49–56. Each video communication device 105a and 105b can output to the connected display device 120a or 120b a video stream, which may have various compositions. *Id.* at col. 5, ll. 56–62.

As shown in Figure 1A, video communication device 105a may be connected between set-top box 125a and display device 120a. *Id.* at col. 5, ll. 62–65. The '182 patent indicates that this arrangement allows video communication device 105a to pass audiovisual stream 150a from set-top box 125a through to display device 120a. *See id.* at col. 5, l. 62–col. 6, l. 1. The '182 patent discloses that video communication device 105a (additionally or alternatively) may receive audio video stream 160 from video communication device 105b, and that video communication device 105a may forward video stream 160 to display device 120a. *Id.* at col. 6, ll. 1–6. This may happen as part of a video call. *Id.* at col. 6, ll. 1–5. The '182 patent discloses that video communication device 105a, in some cases, may cause simultaneously the display of audiovisual stream 150a from set-top box 125a and stream 160 from video communication device 105b. *Id.* at col. 6, ll. 14–18. This allows a user to watch television while participating in a video call. *Id.* at col. 6, ll. 18–20.

The '182 patent shows more details of one video communication device 105 in Figure 4, reproduced below.

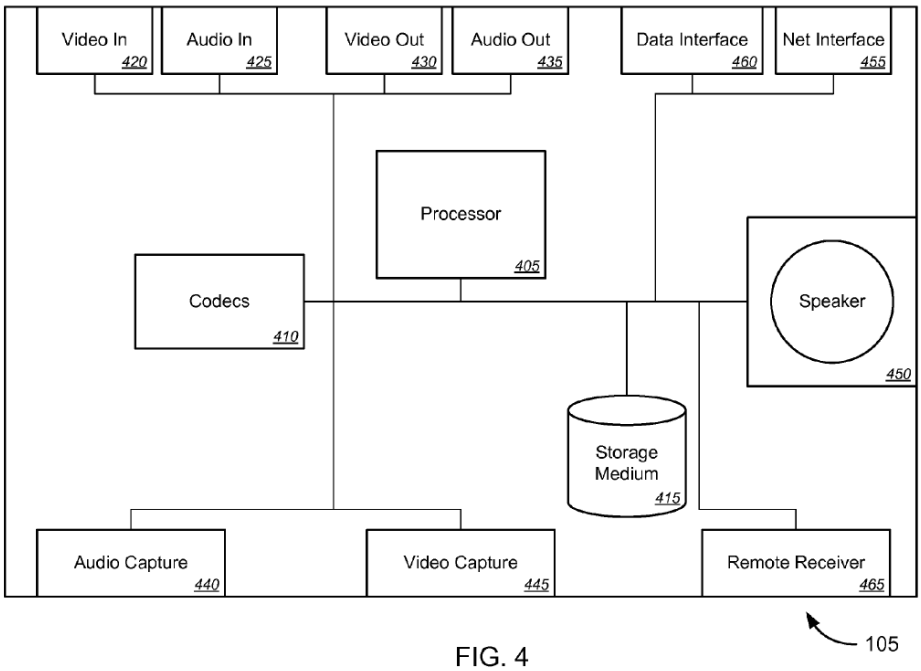

FIG. 4

Figure 4 shows a block diagram of the components composing video communication device 105 and connections between those components. *Id.* at col. 9, ll. 59–64. Video communication device 105 includes input video interface 420 and input audio interface 425, through which video communication device 105 may receive video and audio from a set-top box. *Id.* at col. 10, ll. 19–21, 48–52. Video communication device 105 further includes output video interface 430 and output audio interface 435, through which video communication device 105 may transmit video and audio to a display device. *Id.* at col. 10, ll. 19–22, 59–67. Video communication device 105 also includes audio capture device 440 (such as a microphone) and video capture device 445 (such as a camera), through which video communication device 105 may capture audio and video, such as speech and video footage of a video call participant. *Id.* at col. 11, ll. 3–12.

Video communication device 105 also includes network interface 455, which allows connection to a network and, thereby, communication with a

communication server or another video communication device. *Id.* at col. 11, ll. 25–31. Video communication device 105 may receive an encoded audio or video stream from another video communication device via network interface 455. *Id.* at col. 11, ll. 31–35.

Video communication device 105 also includes processor 405, codecs 410, and storage medium 415. *Id.* at col. 9, ll. 64–66, col. 10, ll. 11–18. Processor 405 generally may control operation of video communication device 105. *Id.* at col. 9, ll. 64–66. Codecs 410 "provide encoding and/or decoding functionality." *Id.* at col. 10, ll. 13–14. Storage medium 415 "can be encoded with instructions executable by the processor, can provide working memory for execution of those instructions, can be used to cache and/or buffer media streams, and/or the like." *Id.* at col. 10, ll. 15–18.

C. Illustrative Claim

The pending ground of unpatentability involves claims 69–71 and 74 of the '182 patent. Claim 69 is independent. Each of the other challenged claims depends from claim 69. Claim 69 is illustrative and is reproduced below:

> 69. A method of providing video calling using a first video communication device comprising an audio capture device, a video capture device, a network interface, an audiovisual input interface, and an audiovisual output interface, the method comprising:
>
> receiving, on the audiovisual input interface, a set-top box audiovisual stream from a set-top box, the set-top box audiovisual stream comprising a set-top box video stream and a set-top box audio stream;

receiving, on the network interface, a remote audiovisual stream via a network connection with a second video communication device, the remote audiovisual stream comprising a remote audio stream and a remote video stream;

transmitting, on the audiovisual output interface, a consolidated output video stream comprising at least a portion of the remote video stream and a consolidated output audio stream comprising at least the remote audio stream;

capturing a captured video stream with the video capture device;

capturing a captured audio stream with the audio capture device;

encoding the captured video stream and the captured audio stream to produce a series of data packets; and

transmitting the series of data packets on the network interface for reception by the second video communication device.

Ex. 1001, col. 37, l. 63–col. 38, l. 23.

D. The Prior Art

The pending ground of unpatentability in this *inter partes* review is based on the following prior art:

Exhibits No.	**Reference**
1006	Kenoyer et al., U.S. Patent No. 7,907,164 B2 (Mar. 15, 2011) ("Kenoyer")

E. Instituted Ground of Unpatentability

We instituted an *inter partes* review involving the following ground of unpatentability:

Reference	Basis	Claims Challenged
Kenoyer	§ 102(e)	69–71 and 74

Petitioner supports its challenge with declarations executed by Henry Houh, Ph.D., on September 5, 2014 and August 19, 2015 (Exs. 1003, 1052). Patent Owner relies on a declaration executed by Alan C. Bovik, Ph.D., on June 9, 2015 (Ex. 2018).

II. ANALYSIS

A. Claim Interpretation

In an *inter partes* review, claim terms in an unexpired patent are construed according to their broadest reasonable interpretation in light of the specification. 37 C.F.R. § 42.100(b); *see In re Cuozzo Speed Techs., LLC*, 793 F.3d 1268, 1278–79 (Fed. Cir. 2015), *cert. granted sub nom. Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 890 (2016). Only those terms in controversy need to be construed, and only to the extent necessary to resolve the controversy. *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999). Based on our analysis below, we determine that no claim terms require express construction for purposes of this Decision.

B. Anticipation of Claims 69–71 and 74 by Kenoyer

1. Kenoyer (Ex. 1006)

Kenoyer relates to video conferencing. Ex. 1006, col. 1, ll. 22–23. In Figure 1, Kenoyer "illustrates a videoconferencing system, according to an embodiment." *Id.* at col. 2, ll. 39–40. Figure 1 is reproduced below.

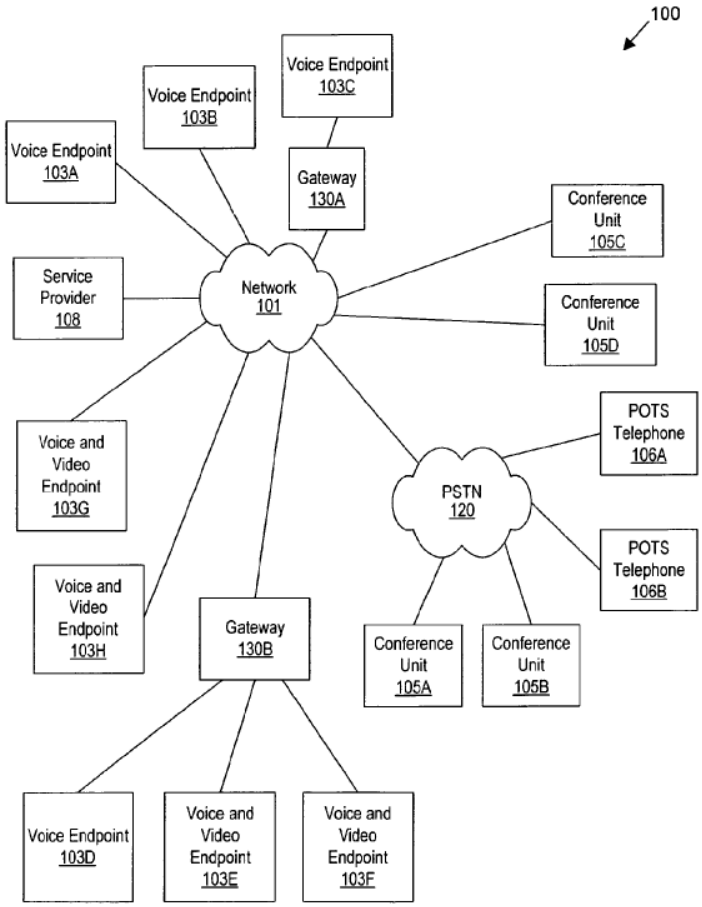

FIG. 1

Figure 1 shows the elements of video conferencing system 100, including "network 101, endpoints 103A-103H (e.g., audio and/or videoconferencing systems), gateways 130A-130B, [] service provider 108 (e.g., a multipoint control unit (MCU)), [] public switched telephone network (PSTN) 120, conference units 105A–105D, and plain old telephone system (POTS)

telephones 106A-106B." *Id.* at col. 3, l. 64–col. 4, l. 4. Each of endpoints 103A–103H, conference units 105A and 105B, and POTS telephones 106A and 106B directly or indirectly couples to network 101. *Id.* at col. 4, ll. 4–14; Fig. 1.

Kenoyer discloses that a multi-component videoconferencing system (MCVCS) may serve as a videoconferencing endpoint. *Id.* at col. 1, ll. 43–45. In Figure 3, Kenoyer "illustrates a participant location with an MCVCS, according to an embodiment." *Id.* at col. 2, ll. 43–44. Figure 3 is reproduced below.

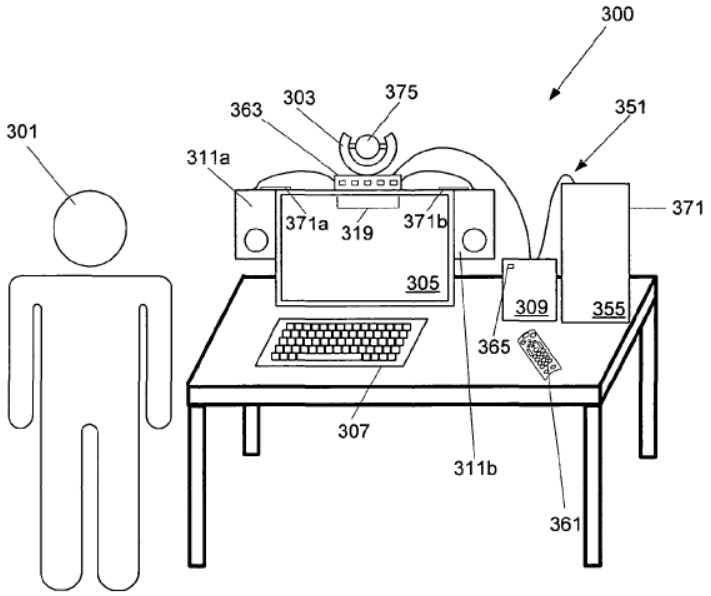

FIG. 3

Figure 3 shows elements of MCVCS 300, including camera 303 (with camera base 363 and lens portion 375), display 305, keyboard 307, codec 309, speakers 311a and 311b (with speaker attachments 371a and 371b), microphones 319, network connection 351, computer system 355,

remote control 361, and remote sensor 365. *Id.* at col. 6, ll. 4–13, 21–22, 44–47, 50–51; col. 7, ll. 25–26; col. 8, ll. 10–11, 35–47. Regarding microphones 319 and camera 303, Kenoyer discloses that "MCVCS 300 may include microphones 319 to capture participant audio and a camera 303 to capture participant video." *Id.* at col. 6, ll. 4–6. Regarding display 305 and speakers 311a and 311b, Kenoyer discloses that "MCVCS 300 may also include speakers 311*a-b* to produce audio from remote conference participants and a display 305 to provide video from local and remote conference participants." *Id.* at col. 6, ll. 6–9.

Kenoyer shows various ports that an embodiment of codec 309 may have in Figure 5, reproduced below.

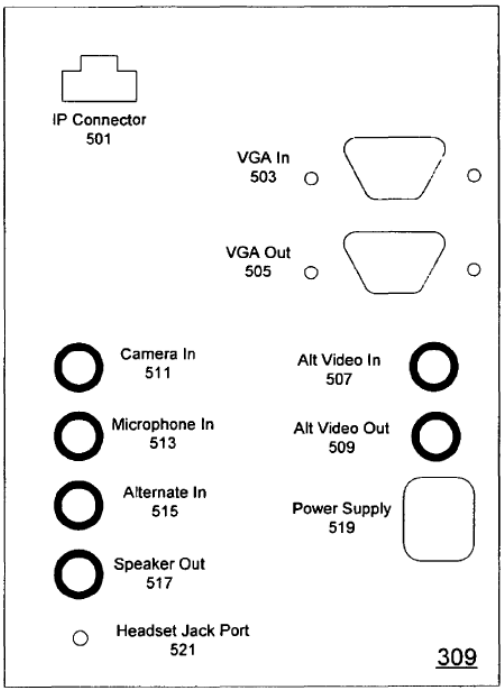

FIG. 5

Figure 5 provides a side view of one embodiment of codec 309, showing a number of ports on the side of codec 309. *Id.* at col. 8, ll. 56–57. Codec 309 includes VGA-In 503 and Alternate Video-In 507. *Id.* at col. 8, ll. 60–61. Codec 309 also includes VGA-Out 505 and Alternate Video-Out 509. *Id.* at col. 9, ll. 9–12. Kenoyer discloses that Internet Protocol (IP) port 501 may be an Ethernet port and may be "included to receive/transmit network signals." *Id.* at col. 9, ll. 12–14. Kenoyer also discloses "[a]dditional ports (e.g., camera in 511, microphone-in 513, speaker-out 517, etc.)." *Id.* at col. 9, ll. 14–17. Kenoyer further discloses that "[t]he camera and microphone array signals may be sent to the codec 309 through one connection (e.g., alternate input 315)." *Id.* at col. 9, ll. 17–19. Codec 309 also includes power supply port 519 and headset jack port 521. *Id.* at col. 9, ll. 20–21.

In Figures 7a and 7b, Kenoyer illustrates an "MCVCS with codec functionality incorporated in a set-top box, according to an embodiment." *Id.* at col. 2, ll. 51–52. Figures 7a and 7b are reproduced below.

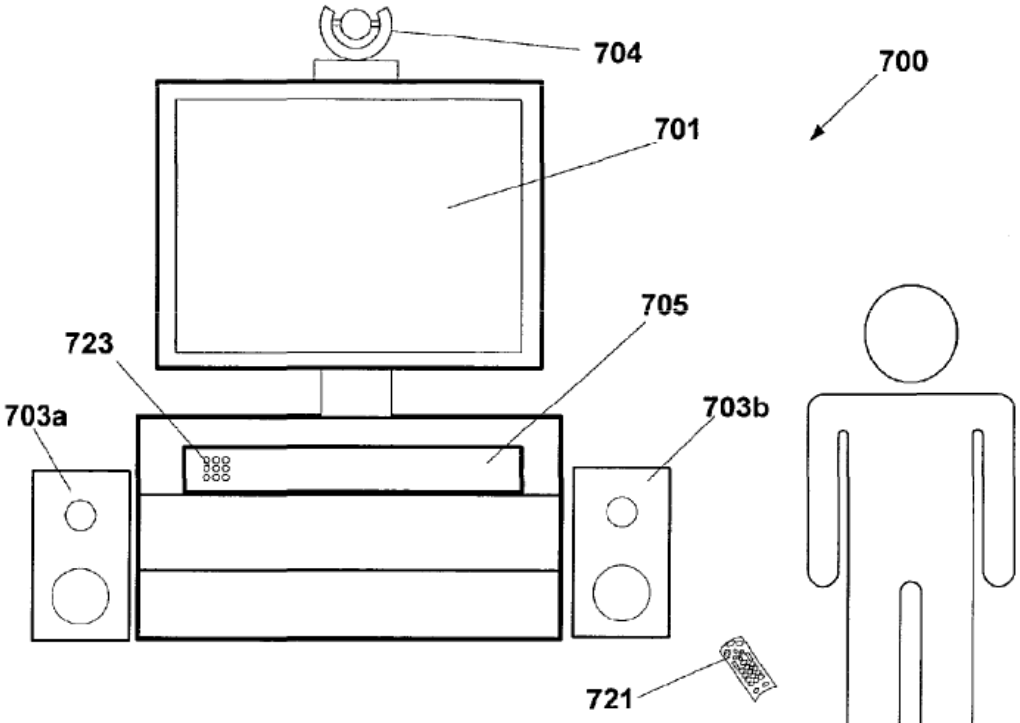

FIG. 7a

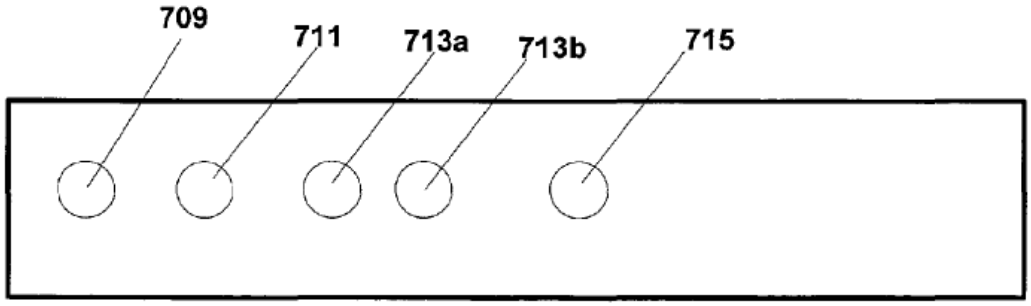

FIG. 7b

Figures 7a and 7b show components of MCVCS 700. *Id.* MCVCS 700 includes display 701, speakers 703, camera 704, set-top box 705, remote control 721, and buttons 723 on set-top box 705, camera port 709, S-Video port 711, audio ports 713a-713b, and cable port 715. *Id.* at col. 10, ll. 8–34; col. 11, ll. 1–4. Kenoyer discloses that "[a]s seen in FIGS. 7*a-b*, in some

embodiments, the codec functionality may be incorporated in a set-top box 705 (e.g., a cable box)." *Id.* at col. 10, ll. 8–10. Kenoyer also discloses that "[t]he codec may also be in an independent housing that is coupled to the set-top box 705. The codec may act as a pass-through for the regular programming/games when a conference is not being held." *Id.* at col. 10, ll. 25–28.

2. Discussion

a. Claim 69

Petitioner argues that Kenoyer discloses all of the limitations of independent claim 69. Pet. 14–20. Petitioner argues that Kenoyer discloses "[a] method of providing video calling using a first video communication device," as recited in the preamble of claim 69. *Id.* 14–15. Petitioner asserts that "Kenoyer discloses a '*first video communication device*' in the form of a 'codec' and a 'multi-component video conferencing system' (MCVCS)." *Id.* (italics in original). Petitioner asserts that "Kenoyer discloses that the codec/MCVCS includes '*an audio capture device*' – a microphone" and that "Kenoyer discloses that the codec/MCVCS also includes '*a video capture device*' – a camera." *Id.* at 15 (italics in original).

Petitioner also contends that Kenoyer discloses each of the interfaces recited in the preamble of claim 69. *Id.* at 15–16. Regarding the "network interface" recited in the claim, Petitioner asserts that Kenoyer discloses "wireless 802.11 and wired network connections," "IP connector 501," and "an RJ-45 local area network connection." *Id.* at 15 (citing Ex. 1006, col. 4, ll. 17–27, col. 9, ll. 12–14, 27–28, Fig. 5). Regarding the "audiovisual input interface," Petitioner argues that "Kenoyer discloses that the codec/MCVCS

has an interface to receive audio and video input from a set top box" and that "Kenoyer shows the interface for the audio and video input in Figure 5 ('Microphone In 513' 'Alternate In 515' 'Video In 503' 'Alt Video In 507')." *Id.* at 15–16 (citing Ex. 1003 ¶¶ 71–72, 81, 92, 95, 438; Ex. 1006, col. 1, l. 65–col. 2, l. 1, col. 8, l. 56–col. 9, l. 34, col. 10, ll. 25–28, Fig. 5). Regarding the "audiovisual output interface," Petitioner argues that "Kenoyer discloses that the codec/MCVCS has a video output interface to provide video to a display" and that "Kenoyer discloses that the codec/MCVCS has an audio output interface, including outputting audio to speakers and using an interface on the codec to do that." *Id.* at 16 (citing Ex. 1003 ¶¶ 81, 85–87, 95, 439; Ex. 1006, col. 4, ll. 39–46, col. 6, ll. 2–9, col. 8, l. 56–col. 9, l. 34, col. 12, l. 67–col. 13, l. 3, Fig. 5).

Petitioner argues that Kenoyer discloses "receiving, on the audiovisual input interface, a set-top box audiovisual stream from a set-top box, the set-top box audiovisual stream comprising a set-top box video stream and a set-top box audio stream," as recited in claim 69. *Id.* at 16–17. In connection with this argument, Petitioner cites Kenoyer's disclosure that "[t]he codec may also be in an independent housing that is coupled to the set-top box 705. The codec may act as a pass-through for the regular programming/games when a conference is not being held." *Id.* (citing Ex. 1006, col. 10, ll. 25–28; Ex. 1003 ¶¶ 71–72, 92, 441).

Petitioner argues that Kenoyer also discloses "receiving, on the network interface, a remote audiovisual stream via a network connection with a second communication device, the remote audiovisual stream comprising a remote audio stream and a remote video stream," as recited in claim 69. *Id.* at 17. Petitioner cites disclosures of Kenoyer regarding

codec 309 and video conferencing systems receiving video and audio from a remote site or participant, as well as Kenoyer's disclosure that its systems may use various wireless or wired communication devices. *Id.* (citing Ex. 1006, col. 4, ll. 17–22, col. 15, ll. 13–14, col. 1, ll. 32–34; Ex. 1003 ¶¶ 75–76, 88, 442).

Petitioner also contends that Kenoyer discloses "transmitting, on the audiovisual output interface, a consolidated output video stream comprising at least a portion of the remote video stream and a consolidated output audio stream comprising at least the remote audio stream," as recited in claim 69. *Id.* at 17–18. In support of this assertion, Petitioner cites various disclosures in Kenoyer. *Id.* at 18 (citing Ex. 1006, col. 6, ll. 6–9, col. 15, ll. 8–20, col. 1, ll. 32–34, Fig. 5; Ex. 1003 ¶¶ 76, 81, 114–116, 443).

Petitioner further argues that Kenoyer discloses the limitations of claim 69 related to "capturing a captured video stream," "capturing a captured audio stream," "encoding the captured video stream and the captured audio stream," and "transmitting the series of data packets." *Id.* at 18–20. In connection with these arguments, Petitioner cites certain disclosures of Kenoyer related to operating video camera 303, operating microphone 319, and handling the data captured by these devices. *Id.*

The parties dispute whether Kenoyer discloses the claim language "receiving, on the audiovisual input interface, a set-top box audiovisual stream from a set-top box, the set-top box audiovisual stream comprising a set-top box video stream and a set-top box audio stream." Pet. 16–17; PO Resp. 9–12; Pet. Reply 1–6. In addressing this claim language, the Petition states that "Kenoyer discloses receiving audio and video from the set top box using the interface described above," referring back to the Petition's

prior discussion of the claim language "an audiovisual input interface." Pet. 16. In that prior discussion of the audiovisual input interface, Petitioner states:

> Kenoyer discloses that the codec/MCVCS has an interface to receive audio and video input from a set top box. Ex. 1003, ¶¶ 71-72, 92, 438; Ex. 1006, 1:65-2:1 ("The codec's audio and video processing may be incorporated in the set-top box and/or may be distributed (e.g., to other devices through a cable coupling the devices to the set-top box)."), 10:25-28 ("The codec may also be in an independent housing that is coupled to the set-top box 705. The codec may act as a pass-through for the regular programming/games when a conference is not being held.").

Pet. 15–16.

Kenoyer does not expressly disclose an interface in its statement that "[t]he codec's audio and video processing may be incorporated in the set-top box and/or may be distributed (e.g., to other devices through a cable coupling the devices to the set-top box)." Ex. 1006, col. 1, l. 65–col. 2, l. 1. Nor does Kenoyer expressly disclose an interface in disclosures that "[t]he codec may also be in an independent housing that is coupled to the set-top box 705. The codec may act as a pass-through for the regular programming/games when a conference is not being held" (the "pass-through passage"). *Id.* at col. 10, ll. 25–28. To the extent Petitioner views the foregoing statements, by themselves, as somehow disclosing an interface, Petitioner does not explain any basis for finding that a person of ordinary skill in the art would understand Kenoyer in this manner. *See* Pet. 15–16; Pet. Reply 1–6. We submit that it is certainly possible that these statements could inherently disclose the claimed interface, but Petitioner has provided no evidence why a person of ordinary skill would understand these statements

as necessarily disclosing the claimed interface, as inherency requires. *See In re Oelrich*, 666 F.2d 578 (CCPA 1978) ("Inherency, however, may not be established by probabilities or possibilities."). In the absence of any such evidence or explanation, we do not believe Petitioner has carried its burden. *See, e.g.*, 37 C.F.R. § 42.22(a)(2) (requiring Petition to include "[a] full statement of the reasons for the relief requested, including a detailed explanation of the significance of the evidence including material facts, and the governing law, rules, and precedent").

Instead, Petitioner asserts that "Kenoyer shows the interface for the audio and video input in Figure 5 ('Microphone In 513' 'Alternate In 515' '[VGA] In 503' 'Alt Video In 507')."[1] Pet. 15–16. Petitioner further states that:

> Kenoyer discloses receiving audio and video from the set top box using the interface described above. "The codec may also be in an independent housing that is coupled to the set-top box 705. The codec may act as a pass-through for the regular programming/games when a conference is not being held."

Id. at 16–17 (citing Ex. 1006, col. 10, ll. 25–28; Ex. 1003 ¶¶ 71–72, 92, 441). Thus, Petitioner relies on Kenoyer's pass-through passage in combination with Kenoyer's Figure 5 disclosure as allegedly disclosing "receiving, on the audiovisual input interface, a set-top box audiovisual stream from a set-top box, the set-top box audiovisual stream comprising a set-top box video stream and a set-top box audio stream." Specifically, Petitioner relies on the pass-through passage as disclosing receiving audio

[1] The Petition refers to "*Video* In 503." Pet. 16 (emphasis added). Kenoyer, however, discloses "*VGA* In 503." Ex. 1006, col. 8, ll. 60–61; Fig. 5 (emphasis added). Accordingly, we interpret the Petition as referring to "VGA In 503."

and video and the Figure 5 disclosure as disclosing an audiovisual input interface on which the audio and video are received.

Dr. Houh asserts that a person of ordinary skill in the art would "consider the import of Kenoyer's disclosure of connecting the set-top box to the codec ***together*** with Kenoyer's disclosure a codec with audio and video input interfaces." Ex. 1052 ¶ 22. Dr. Houh elaborates that

> Based on my experience with persons with college education and industry experience in computer science/electrical engineering, video conferencing, and video and audio, such persons would have considered Kenoyer's disclosure of connecting a set-top box to codec in the context of Kenoyer's disclosure that the codec includes video (and audio) inputs.

Id. ¶ 23. Dr. Houh asserts that "such persons would have interpreted Kenoyer's disclosure of a codec separate from and coupled to a set-top box as meaning that the set-top box would be coupled to the codec using the interfaces that Kenoyer discloses are included in the codec" because "[s]uch persons would understand that each of the codec's video inputs described by Kenoyer was capable of receiving video input from a set-top box." *Id.*

Referring to Kenoyer's disclosure related to Figure 5, Patent Owner argues that "[w]here Petitioner does point to an embodiment of Kenoyer with a distinct codec, it does not have an input interface to receive audio or video from a set-top box. Instead, it receives video input from a computer." PO Resp. 10. Patent Owner explains that Figure 5 shows codec 309, and Figure 3 shows codec 309 connected to a "computer, ***not*** a set-top box." *Id.* (emphasis in original).

Additionally, Patent Owner and Dr. Bovik assert that Kenoyer does not indicate that Microphone In 513, Alternate In 515, VGA In 503, or Alt

Video In 507 would be used to connect to a set-top box. *Id.* at 10–11; Ex. 2018 ¶¶ 222–225. Patent Owner and Dr. Bovik assert that Kenoyer does not describe VGA In 503 and Alt Video In 507 as interfaces for receiving video from a set-top box. PO Resp. 10–11; Ex. 2018 ¶ 222. Indeed, Patent Owner and Dr. Bovik assert, that a person of ordinary skill in the art would understand a VGA cable is not ordinarily used to transmit a cable or satellite signal. *Id.* Regarding audio, Dr. Bovik testifies that "Figure 5 shows multiple input and output interfaces, but only two such interfaces are even potentially an input interface to receive audio from the set-top box: 'Microphone In 513' and 'Alternate In 515.'" Ex. 2018 ¶ 223. Patent Owner and Dr. Bovik further assert that Kenoyer does not describe Microphone In 513 and Alternate In 515 as interfaces for receiving audio from a set-top box. PO Resp. 11–12; Ex. 2018 ¶¶ 223–225. Regarding Microphone In 513, Dr. Bovik testifies that "a microphone-in connection is not the type of connection one of ordinary skill would consider to be an input interface to receive audio input from the set-top box; indeed, by its very name, it would likely receive input audio from a microphone." Ex. 2018 ¶ 224. Dr. Bovik also notes that Kenoyer discloses Alternate In 515 can receive signals from a camera and a microphone array, not audio from a set-top box. *Id.* ¶ 225.

Petitioner responds that "Kenoyer's disclosure of the codec's functionality in one paragraph and the codec's interfaces in another is sufficient to satisfy the claim." Pet. Reply 4 (citing *Ex parte Luck*, 28 USPQ2d 1875, 1875–76 (BPAI 1993)). Petitioner argues that in addition to disclosing connecting codec 309, which Figure 5 shows, to a computer, "Kenoyer also teaches connecting the codec to a [set-top box]." *Id.* at 3

(citing Pet. 15–16; Ex. 1006, col. 1, l. 65–col. 2, l. 1, col. 10, ll. 25–28). Petitioner asserts that "Kenoyer's disclosure of a codec separate from and coupled to the STB shows that the codec would use the interfaces Kenoyer otherwise discloses for the codec." *Id.* at 4.

In response to Dr. Bovik's assertions about VGA In 503, Dr. Houh testifies that VGA inputs are capable of receiving video from a set-top box and that the evidence does not support Dr. Bovik's assertion that VGA inputs are not ordinarily used for cable and satellite transmissions. Ex. 1052 ¶¶ 25–29. Regarding audio, Dr. Houh asserts that an Alternate In interface and other inputs disclosed by Kenoyer "were known to be capable of receiving audio from a set-top box." *Id.* ¶ 38. Dr. Houh further asserts that:

> Based on my experience with persons with college education and industry experience in computer science/electrical engineering, video conferencing, and video and audio, such persons would understand read Kenoyer as a whole, and when reading Kenoyer's directions to use cables to connect a set-top box to a codec (with compatible audio interfaces), for the purpose of conveying the set-top box programming, that the person would have understood to connect the audio output of the set-top box to the compatible audio input interface of Kenoyer's codec.

Id. ¶ 41.

To demonstrate anticipation, Petitioner must demonstrate that a prior art reference shows every element of the claimed invention identically, in the same relationship as in the claim. *In re Bond*, 910 F.2d 831, 832 (Fed. Cir. 1990). "[A] reference can anticipate a claim even if it 'd[oes] not expressly spell out' all the limitations arranged or combined as in the claim, if a person of skill in the art, reading the reference, would 'at once envisage' the claimed arrangement or combination." *Kennametal, Inc. v. Ingersoll*

Cutting Tool Co., 780 F.3d 1376, 1381 (Fed. Cir. 2015) (quoting *In re Petering*, 301 F.2d 676, 681 (1962)). "[I]t is not enough that the prior art reference discloses part of the claimed invention, which an ordinary artisan might supplement to make the whole, or that it includes multiple, distinct teachings that the artisan might somehow combine to achieve the claimed invention." *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1371 (Fed. Cir. 2008) (citing *In re Arkley*, 455 F.2d 586, 587 (CCPA 1972)).

Petitioner has not shown by a preponderance of the evidence that Kenoyer discloses all aspects of the claim limitation "receiving, on the audiovisual input interface, a set-top box audiovisual stream from a set-top box, the set-top box audiovisual stream comprising a set-top box video stream and a set-top box audio stream" identically, in the same relationship as in the claim. As we explain below, we do not agree with Petitioner's argument that "Kenoyer's disclosure of the codec's functionality in one paragraph and the codec's interfaces in another is sufficient to satisfy the claim." *See* Pet. Reply 4. In particular, we conclude that Petitioner has combined separate embodiments to account for the limitations of the claim, which is not a proper basis for anticipation.

Kenoyer supports the conclusion that Petitioner is relying on separate embodiments. Kenoyer discloses that Figure 5 shows "an embodiment" of a codec and that Figures 7a and 7b also show "an embodiment" of an MCVCS with codec functionality incorporated in a set-top box. Ex. 1006, col. 2, ll. 47–48, 51–52, col. 8, ll. 56–57. This indicates that Kenoyer discloses one embodiment in Figure 5 and a different embodiment in Figures 7a and 7b. Kenoyer's pass-through passage is discussed in connection with the embodiment of Figs. 7a and 7b, not the embodiment of Figure 5. Ex. 1006,

col. 10, ll. 8–36. Thus, Dr. Houh's testimony that a person of ordinary skill would treat all these teachings together contradicts Kenoyer's disclosure that these are separate embodiments and is entitled to little weight. *See Network Commerce, Inc. v. Microsoft Corp.*, 422 F.3d 1353, 1361 (Fed. Cir. 2005) ("[E]xpert testimony at odds with the intrinsic evidence must be disregarded.").

Additionally, Kenoyer's description of the embodiment illustrated in Figs. 7a and 7b of an MCVCS with codec functionality incorporated in a set top box, including the pass-through passage, does not contain any reference specifically to Microphone In 513, Alternate In 515, VGA In 503, or Alt Video In 507.[2] *See* Ex. 1006, col. 10, ll. 25–28. Thus, we are not persuaded that the pass-through passage suggests using Microphone In 513, Alternate In 515, VGA In 503, or Alt Video In 507 to receive the regular programming/games disclosed in the pass-through passage.

With no direct link in Kenoyer between the disclosed regular programming/games and Microphone In 513, Alternate In 515, VGA In 503, and Alt Video In 507, Dr. Houh indicates that a person of ordinary skill in the art would understand Kenoyer as disclosing using such inputs to receive the regular programming/games because those inputs are capable of receiving video input from a set-top box. Ex. 1052 ¶ 23. We find this assertion unpersuasive. The arguments and evidence presented by Patent Owner cast substantial doubt regarding whether a person of ordinary skill in the art would have considered Microphone In 513, Alternate In 515, VGA In 503, or Alt Video In 507 appropriate for receiving video and/or audio from a

[2] Indeed, the pass-through passage does not even refer specifically to codec 309 disclosed in Figure 5, but refers ambiguously to "[t]he codec." Ex. 1006, col. 10, ll. 25–28.

set-top box. *See* PO Resp. 10–12; Paper 40, 4–7. In the face of this significant evidence provided by Patent Owner, we find that Petitioner has not adduced sufficient evidence to show by a preponderance of the evidence that a person of ordinary skill in the art would consider any of Microphone In 513, Alternate In 515, VGA In 503, or Alt Video In 507 appropriate for receiving audio from a set-top box. Pet. Reply 2–6; Paper 43, 3–8. Dr. Houh asserts that an Alternate In input (apparently such as Alternate In 515) could be used to receive audio from a set-top box, but Dr. Houh cites no evidence to support this assertion. Ex. 1052 ¶ 38. Without evidence to support this assertion, we find that it is entitled to little weight. *See Perreira v. Dep't of Health and Human Serv.*, 33 F.3d 1375, 1377 n.6 (Fed. Cir. 1994) ("An expert opinion is no better than the soundness of the reasons supporting it.").

Moreover, even if we accept that a person of ordinary skill in the art would understand that Microphone In 513, Alternate In 515, VGA In 503, and/or Alt Video In 507 are capable of receiving regular programming/games from a set-top box, the mere possibility of combining the disclosed embodiments in the specific manner suggested by Petitioner and Dr. Houh does not persuade us that a person of ordinary skill in the art would have understood Kenoyer as disclosing combining the disclosed embodiments in the specific manner suggested by Petitioner and Dr. Houh. Nor does it persuade us that a person of ordinary skill in the art would have "at once envisage[d]" combining the disclosed embodiments in the specific manner suggested by Petitioner and Dr. Houh. Petitioner's and Dr. Houh's explanation of how Kenoyer allegedly discloses the claim limitations involves a person of ordinary skill in the art selecting Microphone In 513,

Alternate In 515, VGA In 503, and/or Alt Video In 507 from one embodiment to use with the regular programming/games disclosed in another embodiment without Kenoyer linking these specific disclosures to one another.[3] Petitioner's and Dr. Houh's efforts to treat Kenoyer as a catalog of parts is not a proper approach to anticipation. *See Lindemann Maschinenfabrik GMBH v. Am. Hoist & Derrick Co.*, 730 F.2d 1452, 1458, 1459 (Fed. Cir. 1984) ("The requirement that the prior art elements themselves be '"arranged as in the claim"' means that claims cannot be '"treated . . . as mere catalogs of separate parts, in disregard of the part-to-part relationships set forth in the claims and that give the claims their meaning.'"). Accordingly, we are not persuaded that Petitioner has demonstrated by a preponderance of the evidence that Kenoyer anticipates claim 69. *See Net MoneyIN*, 545 F.3d at 1371 ("[I]t is not enough that the prior art reference discloses part of the claimed invention, which an ordinary

[3] In the Petition, Petitioner does not identify any input other than Microphone In 513, Alternate In 515, VGA In 503, and Alt Video In 507 as allegedly corresponding to claim 69's audiovisual input/interface on which the claimed set-top box audiovisual stream is received from the set-top box. Pet. 15–16. Aside from listing the foregoing inputs, the Petition says "Kenoyer discloses that the codec/MCVCS has a video input interface to provide video to a display." *Id.* at 16. This statement does not identify any specific input disclosed by Kenoyer. Additionally, this statement refers to an input "to provide video to a display," as opposed to receiving both audio and video. In the Reply, Petitioner identified additional inputs disclosed in Kenoyer as allegedly corresponding to the claimed audiovisual input interface. Pet. Reply 2–6. Because these arguments are improper new arguments made in the Reply, we do not address them. Notwithstanding that, we have considered Petitioner's arguments regarding the other inputs disclosed in Kenoyer, and we find these arguments unpersuasive for the same reasons as Petitioner's arguments about Microphone In 513, Alternate In 515, VGA In 503, and Alt Video In 507.

artisan might supplement to make the whole, or that it includes multiple, distinct teachings that the artisan might somehow combine to achieve the claimed invention."); *Arkley*, 455 F.2d at 587 ("[T]he [prior art] reference must clearly and unequivocally disclose the claimed [invention] or direct those skilled in the art to the [invention] without *any* need for picking, choosing, and combining various disclosures not directly related to each other by the teachings of the cited reference.") (emphasis in original) (cited with approval in *Net MoneyIN*, 545 F.3d at 1371).

For the foregoing reasons, we are not persuaded that Petitioner has demonstrated by a preponderance of the evidence that claim 69 is anticipated by Kenoyer.

b. Claims 70, 71, and 74

Because each of claims 70, 71, and 74 depends from independent claim 69, each of claims 70, 71, and 74 includes claim 69's limitation "receiving, on the audiovisual input interface, a set-top box audiovisual stream from a set-top box, the set-top box audiovisual stream comprising a set-top box video stream and a set-top box audio stream." When addressing claims 70, 71, and 74, Petitioner does not overcome the shortcomings in Petitioner's assertion that Kenoyer discloses the foregoing "receiving" limitation of claim 69. *See* Pet. 20–22; Pet. Reply 1–6. Accordingly, we find Petitioner has not demonstrated by a preponderance of the evidence that Kenoyer anticipates claims 70, 71, and 74.

III. PATENT OWNER'S MOTION TO EXCLUDE

We have reviewed Patent Owner's Motion to Exclude Evidence (Paper 41), Petitioner's Response to the Motion (Paper 42), and Patent

Owner's Reply in support of the Motion (Paper 45). Patent Owner moves to exclude Exhibits 1005, 1007–1009, 1016–1024, 1026, 1028–1033, 1037–1040, 1042, 1043, 1054, and 1056–1061. Because our decision does not rely on any of the challenged exhibits, we *dismiss* Patent Owner's Motion to Exclude Evidence as *moot*.

IV. MOTIONS TO SEAL

Patent Owner filed Exhibit 2019 under seal, along with a Motion to Seal (Paper 26). Petitioner filed Exhibit 1049 under seal, along with a Motion to Seal (Paper 33).

There is an expectation that information will be made public where the information is identified in a final written decision, and that confidential information that is subject to a protective order ordinarily becomes public 45 days after final judgment in a trial, unless a motion to expunge is granted. 37 C.F.R. § 42.56; Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,761 (Aug. 14, 2012). In rendering this Final Written Decision, it was not necessary to identify, nor discuss in detail, any confidential information. However, a party who is dissatisfied with this Final Written Decision may appeal the Decision pursuant to 35 U.S.C. § 141(c), and has 63 days after the date of this Decision to file a notice of appeal. 37 C.F.R. § 90.3(a). Thus, it remains necessary to maintain the record, as is, until resolution of an appeal, if any.

In view of the foregoing, the confidential documents filed in the instant proceeding will remain under seal, at least until the time period for filing a notice of appeal has expired or, if an appeal is taken, the appeal has concluded. The record for the instant proceeding will be preserved in its

entirety, and the confidential documents will not be expunged or made public, pending appeal. Notwithstanding 37 C.F.R. § 42.56 and the Office Patent Trial Practice Guide, neither a motion to expunge confidential documents nor a motion to maintain these documents under seal is necessary or authorized at this time. *See* 37 C.F.R. § 42.5(b).

In its Motion to Seal, Patent Owner states "[Patent Owner] and [Petitioner] have stipulated to entry of the Stipulated Protective Order, filed as Ex. 2032." Paper 26, 2. Exhibit 2032 is titled "Standing Protective Order." In addition to Exhibit 2032, Patent Owner filed Exhibit 2033, which is titled "Stipulated Protective Order." Exhibit 2033 contains editing marks, which appear to indicate where modifications have been made from the default protective order in the Trial Practice Guide. However, there appears to be at least one error in that the redlined version of the protective order (Ex. 2033) appears to show a modification from the default title of "Standing Protective Order" to "Stipulated Protective Order," but the clean version of the protective order (Ex. 2032) maintains the default title "Standing Protective Order" instead of the modified title indicated in the redlined version. This creates uncertainty regarding which of these documents reflects the parties' stipulated protective order. Further confusing the matter, Petitioner's Motion to Seal states "Petitioner and Patent Owner have stipulated to entry of the Stipulated Protective Order, filed as Ex. 2041." Paper 33, 2. The record does not contain an Exhibit 2041. The parties are ordered to file, within 10 business days, a clean copy of their stipulated protective order, along with a joint motion for entry of the stipulated protective order. The parties are also ordered to file a corresponding Exhibit directed to a redlined version of their stipulated protective order that

completely and accurately indicates where all modifications from the default protective order have been made.

V. CONCLUSION

For the reasons expressed above, we determine that Petitioner has *not* shown by a preponderance of the evidence that claims 69–71 and 74 are anticipated by Kenoyer.

VI. ORDER

For the reasons given, it is:

ORDERED that claims 69–71 and 74 of the '182 patent have *not* been shown to be *unpatentable*;

FURTHER ORDERED that Patent Owner's Motion to Exclude is *dismissed as moot*;

FURTHER ORDERED that Patent Owner's Motion to Seal Exhibit 2019 is *granted*;

FURTHER ORDERED that Petitioner's Motion to Seal Exhibit 1049 is *granted*;

FURTHER ORDERED that, within 10 business days, the parties file a clean copy of their stipulated protective order and a corresponding Exhibit directed to a redlined version of their stipulated protective order that completely and accurately indicates where all modifications from the default protective order have been made, along with a joint motion for entry of the stipulated protective order; and

FURTHER ORDERED that because this is a Final Written Decision, parties to the proceeding seeking judicial review of the Decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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