UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

DELL TECHNOLOGIES INC. and DELL INC. Petitioner,

v.

VIDEOLABS, INC. Patent Owner.

IPR2022-00629 Patent 8,139,878 B2

Before KARL D. EASTHOM, JEFFREY S. SMITH, and PATRICK M. BOUCHER, *Administrative Patent Judges*.

SMITH, Administrative Patent Judge.

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

I. INTRODUCTION

Dell Technologies Inc. and Dell Inc. (collectively "Petitioner") filed a Petition (Paper 1, "Pet.") requesting an *inter partes* review of claims 1–4 of U.S. Patent No. 8,139,878 B2 (Ex. 1001, the "'878 patent"). Videolabs, Inc. ("Patent Owner") filed a Preliminary Response (Paper 7, "Prelim. Resp."). Petitioner filed a Preliminary Reply to Patent Owner's Preliminary Response (Paper 8, "Pet. Reply") and Patent Owner filed a Sur-reply (Paper 9, "PO Sur-reply") to address discretionary denial and priority (written description) issues. *See* Ex. 1042 (authorizing briefing).

We have authority to determine whether to institute an *inter partes* review. *See* 35 U.S.C. § 314 (2018); 37 C.F.R. § 42.4(a) (2020). Institution of an *inter partes* review requires that "the information presented in the petition and . . . any response . . . 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." 35 U.S.C. § 314(a). The dispositive issue here is whether Patent Owner shows that the effective filing date of the '878 patent extends to the filing date of its foreign application, thereby antedating two of Petitioner's asserted prior art references. For the reasons set forth below, we determine that Petitioner does not show that there is a reasonable likelihood that Petitioner will prevail with respect to the sole challenged claim. Accordingly, we deny *inter partes* review of the '878 patent.

II. BACKGROUND

A. Real Parties in Interest

Patent Owner identifies itself as the real party in interest. Paper 5, 1. Petitioner identifies "Dell Technologies Inc. and Dell Inc. (collectively, 'Petitioner'), . . . Dell Marketing L.P., Dell Products L.P., and Denali Intermediate Inc." Pet. 73.

B. Related Matters

The parties identify the following proceedings as related district court matters: *VideoLabs, Inc. v. Dell Techs. Inc.*, No. 6:21-cv-00456-ADA (WDTX) (filed May 3, 2021, pending) (Ex. 1018); *VideoLabs, Inc. v. Dell Technologies Inc.*, No. 6:21-cv-00932 (WDTX) (consolidated with No. 6:21-cv-00456 (WDTX)); *VideoLabs, Inc. v. Amazon.com, Inc..*, No. 6:22cv-00079 (WDTX, filed Jan. 21, 2022, pending); *Optis Wireless Technology, LLC v. Huawei Technologies Co, Ltd.* No. 2:17-cv-00123 (EDTX, filed Feb. 21, 2017, terminated due to settlement Apr. 2, 2020); *VideoLabs, Inc. v. Dell Technologies Inc.*, No. 6:21-cv-00932 (WDTX) (consolidated with No. 6:21-cv-00456 (WDTX) (listed above)). *See* Pet. 73; Paper 5, 1.

The parties also identify the following related PTAB matters involving the '878 patent or related patents: *Huawei Device Co., Ltd v. Optis Wireless Tech., LLC*, IPR2018-00658, Paper 14 (PTAB Oct. 9, 2018) (denying institution on petitioner's challenge to claim 1 of the '878 patent) (the

"658-IPR"); *Dell Technologies Inc. vs VideoLabs, Inc.*, IPR2022-00628 (filed Mar. 2, 2022, challenging related U.S. Patent No. 7,769,238 B2) (denying institution concurrently); *Dell Technologies Inc. vs VideoLabs,*

Inc., IPR2022-00701 (filed Mar. 17, 2022, challenging related U.S. Patent No. 7,970,059 B2) (denying institution concurrently). *See* Pet. 72; Paper 4, 1–2.

C. The '878 Patent

The '878 patent, entitled "Picture Coding Method and Picture Decoding Method," issued on March 20, 2012, and claims priority to Japanese application 2002-112665 ("JP665"), filed on April 15, 2002. Ex. 1001, codes (30, 60).

The '878 patent relates to encoding and decoding video and audio. Ex. 1001, 1:12–15, 38:10–60. The video encoder divides a picture into blocks and performs intra-picture prediction and inter-picture prediction for each block to create predictive residual picture data, a "residual block image." *Id.* at 1:19–21; 8:15-20, 8:34–46. The coding process then applies orthogonal transformation using, for example, a discrete cosine transform (DCT), and quantization, on the residual block image. *Id.* at 1:19–27; 8:47–50. The '878 patent explains that quantization of the orthogonal transformed data "creates coefficients showing spatial frequency components which is an object for variable length coding." *Id.* at 7:40–43; 8:50–52. After the transformation and quantization processes are performed on each residual image block, the number of coefficients in each block having a value other than 0, *i.e.*, non-zero coefficients, is detected and stored. *Id.* at 8:55–58.

The '878 patent states that the conventional method uses only one variable length code (VLC) table to encode the values of each coefficient in the current block. Ex. 1001, 1:28–44. According to the '878 patent, this technique is inefficient. *Id.* To improve coding efficiency, the '878 patent describes a system that encodes the total number of non-zero coefficients for

each block (in addition to the values of the coefficients) using a VLC table that is selected from among several available VLC tables. *Id.* at 1:45–52. The '878 patent teaches selecting the VLC table based on a "predictive value" for the number of non-zero coefficients in a block located on the periphery of the block being encoded. *Id.* at 1:67–2:10. More specifically, the '878 patent describes a "coefficient number encoder" that (1) predicts the total number of non-zero coefficients in the current block based on the number of non-zero coefficients in one or more blocks located on the periphery of the current block; (2) selects a VLC table based on that prediction; and (3) encodes the total number of non-zero coefficients in the current block using the selected VLC table. *Id.* at 1:63–2:10; 8:55–62.

The '878 patent's decoding process involves inverse quantization and inverse orthogonal transformation of the coefficients to reconstruct the residual block image. *Id.* at 21:54–22:29. The decoder includes a "coefficient number decoder," which predicts the total number of non-zero coefficients in the block being decoded, uses that value to select a VLC table, and employs the selected VLC table to decode the total number of non-zero coefficients in the block. *Id.* at 3:21–42.

D. Illustrative Claim

Independent claim 1 follows:

1. A transmitting apparatus which transmits multiplexed data which is obtained by multiplexing coded audio data and coded picture data, said transmitting apparatus comprising:

an audio processing unit configured to code audio data to obtain coded audio data;

a picture coding unit configured to code picture data to obtain coded picture data; and

a multiplexing unit configured to multiplex the coded audio data and the coded picture data to obtain multiplexed data,

wherein said picture coding unit includes a block coding unit configured to code a block image to obtain coded block data, the block image being obtained by dividing a picture signal into plural blocks, generating a residual block image from the block image of the respective blocks and a predictive block image obtained by intra-picture prediction or inter-picture prediction, and coding, on a block basis, coefficients obtained by performing orthogonal transformation and quantization on the residual block image,

wherein said block coding unit includes:

a coefficient number coding unit configured to code a total number of non-zero coefficients included in a current block to be coded, each of the non-zero coefficients being a coefficient having a value other than "0",

wherein said coefficient number coding unit includes:

a determining unit configured to determine a predictive value for the total number of non-zero coefficients included in the current block based on a total number of non-zero coefficients included in a coded block located on a periphery of the current block;

a selecting unit configured to select a variable length code table based on the determined predictive value; and

a variable length coding unit configured to perform variable length coding on the total number of the non-zero

coefficients included in the current block, by using the selected variable length code table.

Ex. 1001 at 38:2–37.

Exhibit	Reference	Publication or Filing Date
Ex. 1004	H.324 (ITU-T Recommendation H.324)	Feb. 1998
Ex. 1005	H.263 (ITU-T Recommendation H.263)	Feb. 1998
Ex. 1006	Bjontegaard (U.S. Patent No. 7,099,387 B2)	Filed Aug. 30, 2002
Ex. 1007	JVT-C167	May 2002

E. Asserted Prior Art

See Pet. 3–6.

F. Asserted Grounds of Unpatentability

Petitioner contends that claims 1–4 are unpatentable under Grounds 1 and 2, as follows:¹

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1	103(a)	H.324, H.263, Bjontegaard
1	103(a)	H.324, H.263, JVT- C167

Pet. 3. Petitioner supports its Petition with the Declaration of Dr. Dan Schonfeld (Ex. 1003).

¹ The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) ("AIA"), amended 35 U.S.C. §§ 103, 112. Because the '878 patent's effective filing date is before the March 16, 2013 effective date of the applicable AIA amendment, the pre-AIA versions of §§ 103, 112 apply.

III. ANALYSIS OF THE GROUNDS

A. Legal Standards

"In an [*inter partes* review], 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). The burden of persuasion never shifts to Patent Owner. *Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015).

"In order to gain the benefit of the filing date of an earlier application ... each application in the chain leading back to the earlier application must comply with the written description requirement of 35 U.S.C. §112." *Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1571 (Fed. Cir. 1997). Under this standard, the priority application must "reasonably convey[] to those skilled in the art that the inventor had possession of the claimed subject matter as of the [sought-after] filing date." *Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc). "It is the specification itself that must demonstrate possession," and "a description that merely renders the invention obvious does not satisfy the requirement." *Id.* at 1352.

B. Level of Ordinary Skill in the Art

Determining whether an invention would have been obvious under 35 U.S.C. § 103 requires resolving the level of ordinary skill in the pertinent art at the time of the effective filing date of the claimed invention. *Graham*, 383 U.S. 1, 17 (1966). "The person of ordinary skill in the art is a hypothetical person who [] know[s] the relevant art." *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995). Factors in determining the level of ordinary skill in the art include the types of problems encountered in the art,

the sophistication of the technology, and educational level of active workers

in the field. Id. "[O]ne or more factors may predominate." Id.

Relying on its expert, Dr. Schonfeld, Petitioner contends as follows:

A POSITA at the time would have had at least an undergraduate degree in Electrical Engineering, Computer Science, Computer Engineering, or a related field (or equivalent work experience in the that field), and two or more years of experience with audio, image, or video coding. Ex. 1003, \P 24. The relevant experience would include a working understanding of the then-existing audio and video coding standards, including ongoing work on emerging standards. *Id.*

Pet. 15 (citing Ex. 1003 ¶ 24). Dr. Schonfeld adds that "a POSITA would have a working understanding of the then existing audio and video encoding standards (e.g., H.263), as well as ongoing work on emerging standards (e.g., H.26L/H.264)." 1003 ¶ 24. Dr. Richardson, Patent Owner's expert, agrees with, and applies, Dr. Schonfeld's proposed level of ordinary skill. Ex. 2001 ¶ 30 (citing Ex. 1003 ¶ 24).

Based on a review of the preliminary record, for purposes of the Institution Decision, we adopt Petitioner's proposed level of ordinary skill in the art, as agreed upon by Dr. Schonfeld and Dr. Richardson, because it is consistent with the evidence of record, including the asserted prior art and '878 patent specification.

C. Claim Construction

In *inter partes* reviews, the Board interprets claim language using the district-court-type standard, as described in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). *See* 37 C.F.R. §42.100(b) (2020). Under this standard, claim terms have their ordinary and customary meaning, as would be understood by a person of ordinary skill in the art at the time of the invention, in light of the language of the claims, the

specification, and the prosecution history. *See Phillips*, 415 F.3d at 1313–14.

Petitioner "submits that no construction of any claims term is necessary for the Board to resolve." Pet. 7. Patent Owner also does not propose a construction for any term. *See generally* Prelim. Resp.

As Petitioner argues, it is not necessary to explicitly construe any claim terms. *See* Pet. 7. Any construction would have no effect in the analysis of the dispositive priority issue here. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (stating that "we need only construe terms 'that are in controversy, and only to the extent necessary to resolve the controversy" (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

D. Asserted Prior Art

Patent Owner contends that "Petitioner's grounds fail to demonstrate a reasonable likelihood that claim 1 would have been obvious," because "Bjontegaard and JVT-C167 are not prior art." Prelim. Resp. 31. As indicated above, to support its obviousness grounds, Petitioner relies on Bjontegaard and JVT-C167 as prior art in Grounds 1 and 2, respectively, the only grounds asserted. *Supra* § I.F.

Patent Owner asserts that "[t]he '878 patent is entitled to the April 15, 2002 filing date of Japanese Patent Application No. 2002-112665 ('JP665')," and that Petitioner recognizes that "both references were published after this date but incorrectly argues that the '878 patent is not entitled to JP665's priority date." Prelim. Resp. 32. Petitioner disagrees, arguing that JP665 does not provide written description support for the '878

patent's claim 1 limitations "relating to coding audio and multiplexing coded audio with video." Pet. 1.

Patent Owner asserts that this priority issue "has already been before the Board when it denied institution of the -658 IPR." Prelim. Resp. 55. However, as Petitioner argues, "the Board in its Institution Decision [in the '658-IPR] did not make any findings with respect to whether the '878 patent was actually entitled to claim priority to JP 665," because "[p]etitioner Huawei [in the '658-IPR] did not challenge Patent Owner's assertion that the ['878] patent was entitled to claim priority to the April 15, 2002, filing of JP 665." Pet. Reply 1 (citing Ex. 1043, 7, 36–37; Ex. 2002, 24–32). That is, in the '658-IPR, the Board found that "[p]etitioner [Huawei] does not contest the April 15, 2002, priority date of the ['878] patent." Ex. 2002, 24 (emphasis added). The Board denied institution in the '658-IPR, because it found that Bjontegaard's provisional application does not teach certain limitations of the '878 patent's claim 1, and petitioner Huawei relied on the provisional's filing date to antedate the uncontested April 15, 2002, effective filing date of the '878 patent (via priority to JP665). See id. at 29–31. In contrast, Petitioner does not rely on Bjontegaard's provisional application here for priority; rather, Petitioner contests the alleged April 15, 2002 priority date of the '878 patent based on priority to JP665. See Pet. 5 n.2.

E. Priority Based on JP665

As indicated above, whether JP665 provides written descriptive support for challenged claim 1 of the '878 patent is dispositive as to institution, because the filing date of JP665 is April 15, 2002, and the filing dates of Bjontegaard (Ground 1) and JVT-C167 (Ground 2) that Petitioner relies upon are after April 15, 2002. In particular, Petitioner asserts that "Bjontegaard was filed on August 30, 2002" and "JVT-C167 was publicly

available in May 2002." Pet. 5 & n.2 (conceding that the Petition does not "rely on [Bjontegaard's] provisional application to show that Bjontegaard is prior art to the '878 patent under 35 U.S.C. § 102(e)").

"In order to gain the benefit of the filing date of an earlier application ... each application in the chain leading back to the earlier application must comply with the written description requirement of 35 U.S.C. §112." *Lockwood*, 107 F.3d at 1571. To satisfy this written description requirement, a priority application must "reasonably convey[] to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date." *Ariad Pharm.*, 598 F.3d at 1351. "It is the specification itself that must demonstrate possession," and "a description that merely renders the invention obvious does not satisfy the requirement." *Id.* at 1352.

Petitioner asserts that challenged claim 1 of the '878 patent "contains several limitations that are not supported at all in [JP665]." Pet. 21–23. In particular, Petitioner identifies the following claim 1 limitations as lacking support in JP665:

1. A transmitting apparatus which transmits multiplexed data which is obtained by *multiplexing coded audio data and coded picture data*, said transmitting apparatus comprising:

an audio processing unit configured to *code audio data* to obtain coded audio data; . . .

a multiplexing unit configured to *multiplex the coded audio data and the coded picture data* to obtain multiplexed data

Pet. 23 (alteration in original) (quoting Ex. 1001, claim 1). Petitioner asserts that JP665 "does not contain *any* disclosure whatsoever of coded audio data—let alone multiplexing coded audio data with coded picture data." *Id.* (citing Ex. 1020; Ex. 1003, ¶ 196). According to Petitioner, JP665 only

discloses "encoding and decoding moving pictures (*e.g.*, videos)," describing "elements such as 'pictures,' 'images,' and 'pixels'—concepts that have nothing to do with audio coding and decoding." *Id.* (citing Ex. $1020 \P 2, 4-5, 7, 75, 77, 93$).

Patent Owner disagrees. Patent Owner argues that "JP665 discloses improvements to H.26L, an emerging standard at the time of invention." Prelim. Resp. 38. In particular, Patent Owner argues that "JP665 is aimed at improving then-present H.26L methods, recommending and disclosing a more efficient method of using the 'variable length code' with VLC tables." *Id.* at 44 (citing Ex. 1020 ¶ 3); *see also id.* at 45–46 (describing improvements to H.26.L). JP665 supports Patent Owner on this point. It discloses "H.26L, a moving picture coding method that is presently under the process of standardization." Ex. 1020 ¶ 2. JP665 also describes improving the H.26L standard. *Id.* ¶¶ 4–5. Petitioner does not dispute this point. *See* Pet. Reply 5–10.

As to audio coding and multiplexing, Patent Owner also argues that "[a] POSITA, already familiar with H.26L, would have immediately recognized that the entire purpose of H.26L (and thus JP665) was to create a new video coding standard to be used in systems that already included audio coding/decoding units and multiplexing/demultiplexing units (*see e.g.*, EX1004, 1)." Prelim. Resp. 44. Petitioner does dispute Patent Owner's factual assertion regarding what a person of ordinary skill recognized as the "entire purpose" of H.26L. *See* Pet. Reply 5–10 (arguing that H.26L is a video coding standard but not disputing Patent Owner's noted factual assertion or Patent Owner's similar assertion that "JP 665 conveys to a POSITA that the inventors recognized that moving pictures could (and

would) be coded and transmitted with their associated audio" (quoting Prelim. Resp. 53)).

Patent Owner similarly argues that "[a]s one familiar with the ongoing standards work would readily recognize, H.26L was intended to be used in the framework of devices and systems that multiplexed and demultiplexed coded audio and video data." Prelim. Resp. 40 (citing Ex. 2001 ¶¶71, 74– 80). To support this contention, Patent Owner states that "the early JVT requirements document of H.26L specified that it should be integrated with the H.324 framework." Id. at 47 (citing Ex. 2001 ¶¶ 59, 84–90; Ex. 2006, 1, 5; Ex. 2027, 1); see also Ex. 2006, 5 ("The JVT codec shall be designed to permit efficient adaptation and integration with a variety of system and delivery layers, including MPEG-4 Systems, MPEG-2 Systems, H.320, H.323, H.324, H.324/M, RTP, as well as others TBD."); Ex. 2001 ¶ 52 (testifying that "the encoding scheme of H.26L was to be used in the context of the systems that support functionality surrounding the encoding scheme, including multiplexing and demultiplexing an H.26L video stream with an audio stream that has been encoded and willsubsequently be decoded," including "H.32x (e.g., H.324) and MPEG-4 Systems." (citing Ex. 2011, Ex. 2027, 1)), ¶ 59 (testifying that "the JVT Requirements Document JVT-A004 (EX2006, also published by MPEG as w4508), adopted at the December 2001 Pattaya meetings of MPEG and the JVT, specified that the H.26L codec should integrate with H.324 and other frameworks such as MPEG-2 Systems, MPEG-4 Systems, H.320 and H.323" (citing Ex. 2006, 5)), ¶ 74 (testifying that "H.26L was designed to work within an H.324 multiplexing environment and work was well underway on standardizing this within the JVT" (citing Ex. 2028)); Ex. 2028 (titled "H.26L over IP and H.324

Framework").² Petitioner does not dispute that standards groups designed H26L to work in the H.324 multiplexing framework and other similar multiplexing frameworks including MPEG-4 systems or other MPEG systems prior to the priority date at issue. *See* Pet., Sur-reply 4–10.

Further supporting this contention, Patent Owner argues as follows:

Specifically, the version of H.26L available at the time of JP665 described how H.26L video *is carried in a 'Byte Stream NAL Format' for systems such as ISO/IEC 13818-1 Systems (MPEG-2 Systems), in a packetized form for systems such as H.323, and/or in a media file format such as ISO/IEC 14496-1 (ISO MP4 media file format). [Ex. 2001] ¶77. APOSITA would have recognized that all of these (byte stream, packetized or file format in systems or formats such as MPEG-2 Systems, H.323, H.324, and the ISO media file format) included multiplexing of coded video and coded audio. <i>Id.*, ¶77–78. Hence, *by the time the inventors submitted JP665, H.26L was already incorporated into frameworks that multiplexed coded video with coded audio, such as H.324. Id.*, ¶78.

Prelim. Resp. 48 (emphasis added). Again, Petitioner does not address this argument or evidence showing that H.26L "was already incorporated into frameworks that multiplexed coded video with coded audio." *See id.*; Pet. Reply 5–10.

Dr. Richardson's testimony supports Patent Owner's argument. Dr. Richardson testifies that "[t]he version of H.26L from around the time of JP665 [filed April 15, 2002] is described in EX2013, 'Working Draft Number 2,' which is the "reference coding method . . . for . . . H.26L." Ex. 2001 ¶ 77 (citing Ex. 2013 ("JVT-B118"), 1. Dr. Richardson notes that

² JVT is the Joint Video Team. *See* Ex. 1007; Ex. 1002 ¶ 53 (testifying that the JVT, formed by the "MPEG and ITU-T VCEG committee," started developing H.26L in December 2001, leading to publication of the H.264 standard in April 2003).

"JVT-B118 states on its face that it was 'generated 2002-03-13.' *Id.* (citing Ex 2013, 1). Then, Dr. Richardson ties the H.26L standard (which JP665 cites) to other well-known standards that evidence multiplexing the video of the H.26L standard according to known coded audio and video standards, by relying on the noted description of the applicable version of H.26L (Ex. 2013):

EX2013 describes how H.26L video is carried in a "Byte Stream NAL Format" for systems such as ISO/IEC 13818-1 Systems (MPEG-2 Systems) (EX2013, 84), in a packetized form for systems such as H.323 (EX2013, 84), and/or in a media file format such as ISO/IEC 14496-1 (ISO MP4 media file format) (EX2013, 87), which multiplexes audio and video streams into a file. *See, e.g.*, EX2021, 257 (showing interleaved (multiplexed) coded video and audio tracks).

Ex. 2001 ¶ 77.

Supporting Dr. Richardson's testimony, Exhibit 2013 (which describes H.26L) states that "[t]he intent of JVT is to move toward use of the ISO media file format as the defined method for JVT video content storage. This Appendix defines an interim file format that can be used until encapsulation of JVT video content into ISO media file format has been specified." Ex. 2013, 87. It further states that "[a] file consists of boxes, whose structure is identical to boxes of ISO/IEC 14496-1:2001 (ISO media file format)," and that "[t]he Syntactic Description Language (SDL) of ISO/IEC 14496-1:2001 is used to define the file format." *Id.* Exhibit 2013 also indicates that the H.323 standard for the packetized format (NAL (Network Application Layer) Format) includes H.26L, as Dr. Richardson testifies. *See id.* at 84; Ex. 2001¶77. As Dr. Richardson's testimony above indicates, Exhibit 2021 documents the ISO/IEC 14496-1 International Standard (i.e., the MP4 media file format).

Dr. Richardson and Patent Owner support the showing as to multiplexing coded audio and video by reproducing the following MP4 file format according to the ISO/IEC 14496-1 International Standard as disclosed in Exhibit 2021 (Prelim. Resp. 49, Ex. 2001 ¶ 77):



Figure 37 - Hinted Presentation for Streaming

Figure 37 above shows the MP4 multiplexing format (which Exhibit 2013 describes as implemented with H.26L as noted above). *See* Ex. 2021, 257, Fig. 27; Ex. 2013, 87. This MP4 format includes interleaved (multiplexed) coded audio and video. *See* Ex. 2001 ¶ 77 (citing Ex. 2021, 257, Fig. 37). Petitioner does not dispute this. *See* Pet. Reply 5–10.

Therefore, Patent Owner shows that prior to the filing date of JP665, artisans of ordinary skill understood that the intent of well-known standards organizations, including JVT, was to transmit and receive video according to H.26L as disclosed in JP665, using well-known standard file formats that contain multiplexed coded audio and video blocks. *See* Prelim. Resp. 39–41 (citing Ex. 2001 ¶¶ 71, 74–80); PO Sur-reply 8–9.

As noted above, Petitioner does not address this central aspect of Patent Owner's showing. Rather, Petitioner argues that "H.26L is 'a moving

picture coding method' (POPR at 43–44), and Patent Owner identifies no disclosure in H.26L of coding and multiplexing audio." Pet. Reply. 5. Petitioner repeats Patent Owner's contention that "[t]he only legally relevant inquiry before the Board is whether JP 665 conveys to a POSITA that the inventors recognized that moving pictures could (and would) be coded and transmitted with their associated audio." *Id.* at 6 (quoting Prelim. Resp. 53). Petitioner contends that "[e]ven if Patent Owner is correct that a POSITA could have used the H.26L standard this way, the '878 patent still cannot claim priority to JP 665" as a matter of law. *Id.* at 7. Here, however, Petitioner does not dispute Patent Owner's contention that "JP 665 conveys *to a POSITA* that the inventors recognized that moving pictures . . . would[] *be coded and transmitted with their associated audio.*" *Id.* (quoting Prelim. Resp. 53 (emphasis added)).

Dr. Richardson also points to admissions in the Petition regarding these standards, testifying that he

agree[s] with Petitioner that H.26L was intended as "a successor to H.263" (Pet., 13), *that H.263 and/or other video codecs are required in an H.324 implementation* (Pet., 38), and that *H.324 includes audio coding and multiplexing/ demultiplexing. Pet.,* 40. H.324 was (as Petitioner acknowledges) well known at the time of the invention (Pet., 4) and was even referenced by prior patents by the assignee of the '878 patent. Pet., 4.

Ex. 2001 ¶ 73 (emphasis added).

In addition, Dr. Richardson testifies as follows:

Popular protocols for coded media transmission include standards developed by ISO/IEC and ITU-T, including MPEG-2 Systems, MPEG-4 Systems, H.320, H.323, and H.324. Each of these documents specifies methods and systems *for multiplexing coded video and audio into a suitable form for transmission, sending the multiplexed media, and receiving and demultiplexing prior to decoding.* For example, ITU-T H.324 (Terminal for

Low Bit Rate Multimedia Communication), first published in 1996, describes a terminal for multimedia coding and communication that includes a video codec, an audio codec and multiplexing / demultiplexing of video and audio.

Ex. 2001 ¶ 47 (emphasis added) (citing Ex. 1004 (H.324, 1998), Fig. 1,

1–2). In other words, according to the testimony of Dr. Richardson, which the record supports and Petitioner does not dispute, the applicable standards, known to artisans of ordinary skill prior to the filing date of JP665, show multiplexing the coded audio and video, thereby satisfying claim 1's preamble of "multiplexing coded audio data and coded picture data," and the limitations of "to code audio data" and "to multiplex the coded audio data and the coded picture data," contrary to Patent Owner's arguments. *See* Pet. 23.

Dr. Richardson supports his testimony by reproducing the following block diagram:



Figure 1/H.324 – Block diagram for H.324 multimedia system

Ex. 2001 ¶ 47 (citing Ex. 1004, Fig. 1, 1–2); Ex. 1004, Fig. 1. Figure 1 above illustrates a generic H.324 multimedia videophone system (intended

to be implemented using H.26L video codecs as noted above), including multiplexor and demultiplexor components for coded audio and video, with coded video according to H.263/H.261. Ex. 1004, Fig. 1. As noted above, the parties agree that H.263 was well-known prior to JP665's filing date, and that H.26L was an intended successor to it. *See* Ex. 2001 ¶ 73; Pet. 4, 13, 38–39.

Petitioner reproduces the same H.324 block diagram and agrees that "H.324 implementations are required to include the Multiplex Protocol (H.223), which specifies a multiplexing unit that multiplexes coded video, audio, data, and control streams." Pet. 40 (emphasis added). Petitioner also contends that H.324 "discloses" claim 1's preamble and the limitations of "to code audio data" and "to multiplex" the coded audio and video data. Pet. 36–40 (emphasis added). And as Patent Owner argues, Petitioner "concedes [that] the well-known standard H.324 multimedia system at the time included an H.263/H.261 video codec unit (i.e., a video codec conforming to ITU-T Recommendation H.261 or H.263), an audio codec unit, and a unit for multiplexing/demultiplexing video and audio data in accordance with H.223." Prelim. Resp. 39 (citing Pet. 38–40). Therefore, the Petition supports Dr. Richardson's testimony. See Ex. 2001 ¶¶ 47, 73. As described above, H.26L, as disclosed in JP665, provides a direct link to these well-known coded audio/video multiplexing/demultiplexing system standards (e.g., H.324), where the parties agree that the system standards require video standards such as H.26L and its predecessor such as H.263.

Under *In re Baxter Travenol Labs*, 952 F.2d 388, 390 (Fed. Cir. 1991), it is proper to rely on extrinsic evidence (including admissions) to explain what a reference discloses. *See id*. ("[S]ince [the prior art reference to] Becker referred to Baxter's commercial system and Baxter's commercial

systems utilized a DEHP-plasticized primary bag, it is clear that one skilled in the art would have known that Becker was referring to a DEHPplasticized primary bag"). In *Baxter Travenol Labs*, the court described all manner of extrinsic evidence as proper to show what a reference teaches:

Baxter argues that these depositions, declarations, and admissions are *extrinsic evidence*, *which may not be considered when determining the anticipatory teaching of a reference*. *This is incorrect*. Baxter acknowledges, as it must, that *extrinsic evidence may be considered when it is used to explain, but not expand, the meaning of a reference*. *Scripps Clinic & Research Foundation v. Genentech, Inc.*, 927 F.2d 1565, 1576–77, . . . (Fed.Cir.1991). Here, the depositions and declarations of skilled workers and Baxter's admissions were used to identify what materials Baxter's commercial bags contained at the time of the Becker document, thereby explaining what the phrase "[Baxter] Travenol's commercial, two blood bag container" would have meant to one skilled in the art. This evidence clearly shows that those skilled in the art, reading the Becker document, would have known that Becker's primary bag was plasticized with DEHP.

Id. (emphasis added, second alteration in original).

Here, Patent Owner employs standards documents (e.g., Ex. 2013) as undisputed evidence that describes the H.26L standard, which JP665 discloses that its system improves upon (Ex. 2020 ¶¶ 3–6), and also employs other standards documents and declaration evidence further describing the use of H.26L, as evidence to show how one of ordinary skill in the art would have known that JP665's improved H.26L video system "would[] be" employed in the video portion of coded audio and video multiplexed and demultiplexed systems. *See* Prelim. Resp. 53. And Petitioner does not dispute that "JP665 conveys to a POSITA that the inventors recognized that moving pictures . . . would[] be coded and transmitted with their associated audio." *See* Pet. Reply. 6 (quoting Prelim. Resp. 53); *see also In re Alton*,

76 F.3d 1168, 1175–76 (Fed. Cir. 1996) (citing *Ralston Purina Co. v. Far– Mar Co., Inc.*, 772 F.2d 1570, 1576 (Fed.Cir.1985) and stating that in *Ralston Purina*, "the trial court admitted expert testimony about known industry standards regarding temperature and pressure in 'the art of extrusion of both farinaceous and proteinaceous vegetable materials.' The effect of the testimony was to expand the breadth of the actual written description since it was apparent that the inventor possessed such knowledge of industry standards of temperature and pressure at the time the original application was filed.").

In summary, contrary to Petitioner's arguments, an artisan of ordinary skill would not have read JP665's disclosed video improvements to H.26L as limited only to a coded video system (i.e., without audio) in the face of known related audio/video coding standards specifically contemplating video coding standards including H.26L and its predecessor H.263. Moreover, the parties agree that an artisan of ordinary skill would have known of the existing audio and video encoding standards. Ex. 1003 ¶ 24; Ex. 2001 ¶ 30; *supra* § IIIB. Therefore, Patent Owner shows that JP665 conveys possession of a component (video) used in a known system as defined by known standards (coded audio and video in multiplexing and demultiplexing systems) as required by claim 1.

Based on the full record as generally summarized above, Patent Owner establishes priority of the '878 patent to JP665, thereby antedating Bjontegaard and JVT-C167, which the Petition relies upon to allege obviousness in Grounds 1 and 2, respectively. This priority showing is fatal to the Petition's obviousness showing.

IV. CONCLUSION

For the foregoing reasons, we determine Petitioner has not demonstrated a reasonable likelihood of success in proving that claims 1–4 of the '878 patent are unpatentable on the grounds asserted in the Petition.

V. ORDER

In consideration of the foregoing, it is hereby ORDERED that the Petition is *denied*, and no *inter partes* review is instituted.

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