

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

DELL INC., DELL TECHNOLOGIES INC., HP INC., and
LENOVO (UNITED STATES) INC
Petitioner,

v.

UNIVERSAL CONNECTIVITY TECHNOLOGIES, INC.,
Patent Owner.

IPR2024-01480
Patent 9,852,103 B2

Before KARL D. EASTHOM, THOMAS L. GIANNETTI, and
SHARON FENICK, *Administrative Patent Judges*.

FENICK, *Administrative Patent Judge*.

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

I. INTRODUCTION

Dell Inc., Dell Technologies Inc., HP Inc., and Lenovo (United States) Inc., (collectively) Petitioner, filed a Petition (Paper 1, “Pet.”) requesting an *inter partes* review of claims 1–3, 10–13, 17, and 20–22 (the “challenged claims”) of U.S. Patent No. 9,852,103 B2 (Ex. 1001, the “’103 patent”). Pet. 1. Universal Connectivity Technologies Inc., Patent Owner, filed a Preliminary Response (Paper 9, “Prelim. Resp.”). Patent Owner argues that we should exercise discretion to deny in light of parallel district court litigation.

Institution of *inter partes* review is discretionary. *See Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1367 (Fed. Cir. 2016) (“[T]he PTO is permitted, but never compelled, to institute an IPR proceeding.”). For the reasons stated below, we do not institute *inter partes* review.

II. BACKGROUND

After the parties filed a respective Petition and Preliminary Response, the Office rescinded the June 2022 memorandum entitled “Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation.” Based on the change of binding guidance, we permitted additional briefing. Petitioner filed a Reply to the Preliminary Response (“Prelim. Reply”) (Paper 10) and Patent Owner filed a corresponding Sur-reply (“Prelim. Sur-reply”) (Paper 11) addressing discretionary denial.

A. *Real Parties in Interest*

Petitioner identifies Dell Inc., Dell Technologies Inc., HP Inc., Lenovo (United States) Inc., and Lenovo Group Ltd. as real parties in

interest. Pet. 1. Patent Owner identifies itself as the real party in interest. Paper 7 (Patent Owner's Mandatory Notices), 2.

B. Related Matters

The instant petition is one of seven involving the same parties and challenging claims of patents involved in the some or all of the same underlying district court cases that are the focus of our analysis. The '103 patent at issue here is involved in three parallel district court cases:

- 1) *Universal Connectivity Technologies Inc. v. Dell Technologies Inc., et al.*, No. 1:23-cv-01506-RP (W.D. Tex.) (the "Dell litigation");
- 2) *Universal Connectivity Technologies Inc. v. HP Inc.*, No. 4:24-cv-04097-YGR (N.D. Cal.) (the "HP litigation"); and
- 3) *Universal Connectivity Technologies Inc. v. Lenovo Group Limited*, No. 2:23-cv-00449-JRG (E.D. Tex.) (the "Lenovo Group litigation").

Pet. 1; Paper 7, 2.

According to Patent Owner, there is a fourth litigation concerning a U.S. based, wholly-owned subsidiary of Lenovo Group, Lenovo US, and that action for declaratory judgment is pending in Delaware, No. 1:24-cv-01126-RGA. Prelim. Resp. 3 n.1.

Petitioner also identifies the following IPR proceedings as concurrent proceedings involving the same parties: IPR2024-01428, IPR2024-01429, IPR2024-01478, IPR2024-01479, IPR2024-01481, and IPR2024-01482.

Pet. 2.

C. The '103 Patent

The '103 patent describes “half-duplex bidirectional transmission of data compliant with a first standard (e.g., Universal Serial Bus (USB) standard) over a physical channel of a multimedia link for transmitting audio/video (‘A/V’) data compliant with a second standard (e.g., Mobile High-Definition Link (MHL) standard) between a source device and a sink device using time division multiplexing (TDM).” Ex. 1001, code (57).

During first times, a source device “sends units of data including A/V data and forward data compliant with the first standard.” *Id.*, code (57), 5:21–28, 5:50–6:4, Fig. 2. During second times, not overlapping with the first times, and between transmissions from the source device, the sink device sends backward data compliant with the first standard. *Id.*, code (57), 5:21–28, 6:5–12. The devices can also transmit and receive control data over a second physical channel. *Id.* at 1:61–67.

D. Exemplary Claim 1

Of the challenged claims, claims 1, 11, 21, and 22 are independent. Independent claim 1 is illustrative of the challenged claims, and follows (with bracketed nomenclature by Petitioner):

1. [1p] A method of transmitting data over a multimedia link, comprising:

[1a] over a first physical channel of the multimedia link:

sending forward units of data from a source device to a sink device during one or more first time periods, the forward units of data comprising video data and forward data compliant with a first standard comprising a universal serial bus (USB) standard and different from a standard of the video data;

[1b] receiving backward units of data at the source device from the sink device during one or more second time periods, the backward units of data comprising backward data compliant with the first standard; and

[1c] over a second physical channel of the multimedia link distinct from the first physical channel:

sending control data from the source device to the sink device.

Ex. 1001, 9:66–10:16.

E. Asserted Grounds of Unpatentability

Petitioner contends that claims 1–3, 10–13, 17, and 20–22 are unpatentable on the following grounds:¹

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1, 10, 11, 20–22	102	Zhu ²
1, 2, 10–12, 20–22	103	Zhu
1–3, 10–13, 17, 20–22	103	Zhu and DisplayPort 1.2 ³
1, 2, 10–12, 17, 20–22	103	Lyle ⁴
2, 3, 12, 13, 17	103	Lyle, Shin ⁵

¹ The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (“AIA”), amended 35 U.S.C. §§ 102, 103 effective March 16, 2013, which is before the earliest priority claim for the ’103 patent. *See* Ex. 1001, code (60), 1:7–11. Therefore, the AIA versions of §§ 102 and 103 apply.

² Zhu et al., US 8,799,537 B1, issued Aug. 5, 2014. Ex. 1006.

³ Video Electronics Standards Association, VESA DisplayPort Standard, Version 1, Revision 2, January 5, 2010 and October 8, 2010 Errata Version 1. Ex. 1032; *see* Ex. 1007.

⁴ Lyle et al., US 7,558,326 B1, issued July 7, 2009. Ex. 1008.

⁵ Shin et al., US 5,974,464, issued Oct. 26, 1999. Ex. 1009.

Pet. 4–5. Petitioner supports its Petition with a Declaration of James Webb. Ex. 1003.

III. DISCRETIONARY DENIAL UNDER 35 U.S.C. § 314(a)

Institution of an *inter partes* review is discretionary. See 35 U.S.C. § 314(a) (authorizing institution of an *inter partes* review under particular circumstances, but not requiring institution under any circumstances); *Cuozzo Speed Techs., LLC v. Lee*, 579 U.S. 261, 273 (2016) (“[T]he agency’s decision to deny a petition is a matter committed to the Patent Office’s discretion.”); *SAS Inst. Inc. v. Iancu*, 138 S. Ct. 1348, 1356 (2018) (“[Section] 314(a) invests the Director with discretion on the question whether to institute review.” (emphasis omitted)); *Harmonic*, 815 F.3d at 1367 (Fed. Cir. 2016) (“[T]he PTO is permitted, but never compelled, to institute an IPR proceeding.”).

In exercising the Director’s discretion under § 314(a), the Board may consider “events in other proceedings related to the same patent, either at the Office, in district courts, or the ITC.” Patent Trial and Appeal Board Consolidated Trial Practice Guide, 58 & n.2 (Nov. 2019).⁶ *NHK Spring* explains that the Board may consider the advanced state of a related district court proceeding, among other considerations, as a “factor that weighs in favor of denying the Petition under § 314(a).” *NHK Spring Co. v. Intri-Plex Techs., Inc.*, IPR2018-00752, Paper 8 at 20 (PTAB Sept. 12, 2018) (precedential). Additionally, the Board’s precedential order in *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 at 5–6 (PTAB Mar. 20, 2020) (precedential) (“*Fintiv*”) identifies several factors for analyzing issues

⁶ Available at <https://www.uspto.gov/TrialPracticeGuideConsolidated>.

related to the Director's discretion to deny institution in view of related litigation, with the goal of balancing efficiency, fairness, and patent quality.

When considering related litigation, the Board evaluates the following factors (“*Fintiv* factors”):

1. whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted;
2. proximity of the court's trial date to the Board's projected statutory deadline for a final written decision;
3. investment in the parallel proceeding by the court and the parties;
4. overlap between issues raised in the petition and in the parallel proceeding;
5. whether the petitioner and the defendant in the parallel proceeding are the same party; and
6. other circumstances that impact the Board's exercise of discretion, including the merits.

Fintiv at 5–6. “These factors relate to whether efficiency, fairness, and the merits support the exercise of authority to deny institution in view of an earlier trial date in the parallel proceeding.” *Id.* at 6. In evaluating the *Fintiv* factors, we take “a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review,” recognizing that “there is some overlap among these factors” and that “[s]ome facts may be relevant to more than one factor.” *Id.*

In the analysis that follows, we consider whether the *Fintiv* factors weigh in favor of denying institution.

A. *Factor 1: whether the court granted a stay or evidence exists that one may be granted if this proceeding is institute*

A district court stay of parallel litigation pending resolution of an *inter partes* review “allays concerns about inefficiency and duplication of efforts,” and strongly weighs against exercising our authority to deny institution. *Fintiv*, 6. Of the three district court proceedings, the Lenovo Group litigation, pending in the Eastern District of Texas, is the most significant to our analysis here. In the Lenovo Group litigation, the parties have not requested a stay. Prelim. Resp. 1, 3. Patent Owner argues that the Lenovo Group litigation is not likely to be stayed based on that court’s low grant rate in other cases and the progress of that case in particular. *Id.* at 3–6. The district court in the HP litigation denied a stay without prejudice, and stated that a stay could be reconsidered in the future depending on the outcome at the PTAB. Prelim. Reply 2–3. The Dell litigation has been stayed. *Id.* at 2.

On this record, we decline to speculate as to how any of the involved district courts where no stay is pending might rule on any future motion to stay. Thus, we determine that, while one stay has been granted, the lack of a stay in the other underlying district court cases, especially the Lenovo Group litigation, is not sufficiently persuasive to weigh this factor against exercising discretion. *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 15 at 12 (PTAB May 13, 2020) (informative), cautions against speculating whether the district court would grant a stay if one were requested.

For these reasons, this factor has a neutral effect on the overall balancing of the *Fintiv* factors.

B. Factor 2: proximity of the court’s trial date to the Board’s projected statutory deadline for a final written decision

The scheduled trial date for the Lenovo Group litigation is November 3, 2025, which is about six months prior to the expected date for the final written decision here (i.e., late April 2026). *See* Prelim. Resp. 1, 4; Ex. 2001 (Lenovo Group litigation Case Docket Control Order), 1 (listing trial date as Nov. 3, 2025). Petitioner argues this trial date is uncertain. Prelim. Reply 3. Further, Petitioner focuses its argument on what it terms a “growing backlog” in the Eastern District of Texas and the status of the HP litigation, which is currently set for trial on September 21, 2026. *Id.*

Patent Owner argues that “both the scheduled trial date and the date of trial based on median time-to-trial statistics occur many months before a final written decision would be expected in this forum.” Prelim. Sur-reply 1. Patent Owner asserts that the time-to-trial statistics for the Eastern District of Texas project a median time-to-trial of 21.9 months. Prelim. Resp. 8–9. This projection yields a trial date of July 2025, which is about nine months prior to the expected final written decision date of April 2026. *See id.* at 8 (citing Ex. 2007 (U.S. District Courts—Federal Court Management Statistics—Profiles—September 30, 2024 Reporting)).

As with the previous factor, the status of the Lenovo Group litigation is our focus here. As stated, that trial is set to occur about six months before a final written decision would issue in this proceeding. The district court has stated that this trial date setting “cannot be changed without an acceptable showing of good cause.” Prelim. Resp. 4, 8 (quoting Ex. 2001, 5). We are not persuaded by Petitioner’s unsupported argument that the trial date is speculative. We also consider the fact that the median time-to-trial statistic projects a trial date of July 2025, earlier than the actual date set by the

district court. Ex. 2001; Ex. 2007; Prelim. Resp. 8–9. The fact that the time-to-trial statistic is earlier than the scheduled trial date confirms that the scheduled trial date is credible and should be given weight. From this evidence, we are persuaded that we should rely on the scheduled trial date in the Lenovo Group litigation as the main indicator of a trial court reaching the merits of the invalidity of the patent-at-issue before we issue a final written decision.

Accordingly, this factor strongly favors exercising discretionary denial.

C. Factor 3: investment in the parallel proceeding by the court and the parties;

This factor relates to the “amount and type of work already completed in the parallel litigation by the court and the parties at the time of the institution decision.” *Fintiv* at 9.

As for the amount and type of work expended by the parties, we understand that Patent Owner has “conducted extensive third-party discovery from [Lenovo Group Limited]’s suppliers.” Prelim. Resp. 10. In addition, by the time the institution decision issues in this proceeding, the parties would have completed the claim construction briefing, with a *Markman* hearing scheduled soon, i.e. for May 20, 2025. *See id.*; Prelim. Sur-reply 1–2.⁷ This activity is all in connection with the Lenovo Group litigation; the Dell and HP litigations have had no significant activity of note. Prelim. Reply 3. As for the district court’s work in the Lenovo Group litigation, although there have been discovery motions and other activity in

⁷ The district court recently re-scheduled the *Markman* hearing to May 20, 2025, from its originally scheduled date of May 12, 2025.

connection with claim construction, the amount of work that has been performed to date does not raise a concern for the investments made in that litigation.⁸

Balancing the evidence before us, we are persuaded that the Lenovo Group litigation activity by the court and the parties has little to no impact on our analysis of the third factor. Accordingly, this factor is neutral.

D. Factor 4: overlap between issues raised in the petition and in the parallel proceeding;

Under the fourth *Fintiv* factor, we consider “overlap between issues raised in the petition and in the parallel proceeding.” *Fintiv* at 12. Each Petitioner entity stipulates that if we institute trial, Petitioner “will not pursue in District Court litigation the specific grounds asserted in *inter partes* review IPR2024-01480, or on any other ground that was raised or could have been reasonably raised in an IPR.” Ex. 1033–1035 (stipulation by each Petitioner entity citing *Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 (PTAB Dec. 1, 2020) (precedential)); *see* Ex. 1020 (identical stipulation by Lenovo Group Limited).

In its Preliminary Sur-reply, Patent Owner contends that the *Sotera* stipulations do not mitigate concerns of overlap because the stipulations state that Petitioner reserved the right to challenge invalidity at the district court based on “system art,” *i.e.* prior art consisting of “system, product, or public knowledge that embodies or otherwise incorporates” the asserted prior art before us. Prelim. Sur-reply 2–3 (quoting Ex. 2005, 29; citing Ex. 1036, 2). We do not agree with Patent Owner. The overlap of claims

⁸ As noted *supra*, a *Markman* hearing has not been held, and thus, to date, there is no *Markman* order that would require efforts by the district court.

between this proceeding and the litigation is complete, and the prior art references involved here are the same as some of the prior art involved in the litigation. Prelim. Resp. 11–12. Although we acknowledge Patent Owner’s concern about lack of overlap stemming from Petitioner’s reservation of rights in its *Sotera* stipulation, our evaluation at this juncture is based on the facts before us, not on how Petitioner *might* challenge the validity of the patent at trial. Further, Patent Owner does not identify any art asserted by Petitioner in the litigation that might fall within this reservation. On the present record, Petitioner’s broad stipulation mitigates certain concerns of duplicative efforts between the district court and the Board, and also concerns of potentially conflicting decisions. *Sotera*, Paper 12 at 19.

For these reasons, factor 4 strongly favors not exercising discretionary denial.

E. Factor 5: whether the petitioner and the defendant in the parallel proceeding are the same party;

Under the fifth *Fintiv* factor, we consider “whether the petitioner and the defendant in the parallel proceeding are the same party.” *Fintiv* at 13. “[I]f the parties are the same in the *inter partes* proceeding and in the parallel proceeding. . . . this factor supports denying institution.” *Sotera* at 19 (citations omitted). Patent Owner states that “there is no dispute that real party-in-interest [Lenovo Group Limited], parent of [petitioner entity] Lenovo US, is the defendant” in the Lenovo Group litigation, and the Dell litigation and the HP litigation are the same in that respect. Prelim. Resp. 13.

Petitioner contends that Factor 5 “is at worst, neutral.” Prelim. Reply 4. Petitioner contends that “*Fintiv* did not suggest Factor 5 favors denial

when the petitioner is the defendant.” *Id.* (citing *Fintiv* at 13–14). Petitioner notes that “neither Dell nor HP is a party” in the Lenovo Group litigation, upon which Patent Owner relies, and the fact “that Dell and HP are parties to [the Dell litigation and the HP litigation] has no bearing on the Factor 5 analysis.” *Id.* at 4–5.

Patent Owner contends that “[b]ecause the [P]etitioner and the defendant in the parallel proceeding are the same party, this factor weighs in favor of discretionary denial.” Prelim. Resp. 13.

On the record before us, we discern no reason to treat Petitioner entity Lenovo (US) and its parent Lenovo Group Limited as separate parties for the purpose of this *Fintiv* analysis. Petitioner identifies Lenovo Group Limited as a real party in interest. Pet. 1 (“Petitioners hereby name Dell Inc., Dell Technologies Inc., HP Inc., and Lenovo (United States) Inc. as real parties-in-interest and, solely because it is named as a defendant in a co-pending district court case listed below, further identify Lenovo Group Ltd. as a real party-in-interest.”). Lenovo Group Limited has submitted a *Sotera* stipulation in this case. Ex. 1036. Therefore, all Petitioner entities are involved as defendants or as a real party-in-interest to a defendant in the parallel district court litigations, including the Lenovo Group Limited.

Accordingly, factor 5 weighs in favor of discretionary denial.

F. Factor 6: other circumstances that impact the Board’s exercise of discretion, including the merits

This sixth *Fintiv* factor takes into account other circumstances that may bear on the decision to exercise discretion to deny, such as the merits of the patentability challenges. *Fintiv* at 14–16 (“[I]f the merits of a ground raised in the petition seem particularly strong on the preliminary record, this

fact has favored institution.”). This factor supports the exercise of discretion if the merits of a case include weaknesses that call into question the strength of the petition. *See Fintiv* at 15 (“[I]f the merits of the grounds raised in the petition are a closer call, then that fact has favored denying institution when other factors favoring denial are present . . . there may be strengths or weaknesses regarding the merits that the Board considers as part of its balanced assessment”). We therefore turn to a discussion of the merits.

1. Analysis of Petitioner’s Challenges

a) Level of Ordinary Skill in the Art

Petitioner asserts that one of ordinary skill in the art would have had a bachelor’s degree in electrical engineering, computer engineering, computer science, or equivalent training, and three years of experience with data communications systems or interfaces, including at least some experience with serial or display data communications systems or interfaces. Additional education can substitute for less work experience, and vice versa.

Pet. 14; *see* Ex. 1003 ¶ 41. Patent Owner does not dispute or comment on this proposal or propose an alternate level of ordinary skill in the art.

Based on a review of the record, we adopt Petitioner’s proposed level of ordinary skill in the art, which is consistent with the evidence of record, including the asserted prior art and ’103 patent.

b) Claim Construction

In *inter partes* reviews, the Board interprets claim language using the same standard used in district courts, as described in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). *See* 37 C.F.R. § 42.100(b) (2023). 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.

Neither Petitioner nor Patent Owner asserts that any claim term requires claim construction (Pet. 14–15; Prelim. Resp.) and we do not discern that any claim term requires construction to arrive at our conclusions herein.

c) *Alleged Anticipation of Claims 1, 10, 11, and 20–22 and Alleged Obviousness of Claims 1, 2, 10–12, 20–22 Based on Zhu*

Petitioner contends that Zhu anticipates or would have rendered obvious claims 1, 10, 11, and 20–22 and, additionally, that Zhu would have rendered obvious claims 2 and 12. Pet. 11–37.

(1) *Zhu*

Zhu relates to communications between devices in which “data, multimedia, or a combination thereof” are transferred “from [a] source device to [a] downstream device over a single source device port.” Ex. 1006 1:19–22.

Zhu discloses a “mixed mode” in which the source device sends data formatted according to a USB protocol to the sink device, while, “at the same time” and “on the same link” sending video stream data, which may be uncompressed high definition media data signals. *Id.* at 33:30–33, 33:63–34:10, 34:46–51, Fig. 35c. The video stream data may be DisplayPort standard data.⁹ *Id.* at 1:42–52, 5:4–6, 34:6–10.

In the mixed mode, backward transmissions during the video blanking period allow USB data to be sent from the sink side to the source side. *Id.* at

⁹ “A DisplayPort (DP) communication standard is an interface and link protocol for transferring high definition video/audio and data across computer systems and electronics devices.” Ex. 1006, 1:42–45.

34:25–35, 34:47–51, Fig. 35c. “The number of bytes to be sent in the backward direction may be precalculated and communicated through the AUX channel of the Display Port link.” *Id.* at 34:39–40.

(2) *Analysis of Petitioner’s Claim 1 Contentions Relating to Zhu*

We begin by reviewing Petitioner’s contentions with respect to limitations 1p, 1a, and 1b of claim 1. Petitioner argues that Zhu’s method of transmitting data over a multimedia link is disclosed in Zhu’s mixed mode, in which source to sink communications include DisplayPort data flow (forward units of data comprising video data) and USB data (forward data compliant with a first standard comprising a USB standard). Pet. 20–26 (citing, *inter alia*, Ex. 1006, 33:63–66, 34:13–15, 34:47–35:5, 35:38–40, Fig. 35c; Ex. 1003 ¶¶ 64–72). With respect to limitation 1b of claim 1, relating to backward units of data received at the sink device from the source device, Petitioner cites the disclosure in Zhu that the mixed mode is bidirectional, and thus data transfer may be performed in either direction. *Id.* at 26–27 (citing Ex. 1006 34:1–3, 34:25–26, Fig. 40; Ex. 1003 ¶¶ 73–74). Petitioner further argues that Zhu discloses that USB data may be communicated in the backward direction during the video blanking period. *Id.* at 27 (citing Ex. 1006, 34:27–29).

With respect to limitation 1c, sending control data from the source device to the sink device “over a second physical channel of the multimedia link distinct from the first physical channel,” Petitioner cites “one wire of a USB connector . . . known as the C-wire” in Zhu. Pet. 28 (citing Ex. 1006, 5:6–17, 20:7–57, 23:10–29, 26:28–36, Fig. 19; Ex. 1003 ¶¶ 75–81). Petitioner notes that Figure 19 of Zhu “illustrates a USB connector 1910 that includes a C-wire.” *Id.* Alternatively, Petitioner argues, “the side-band

information may be ‘communicated through the AUX channel of the DisplayPort link.’” *Id.* at 29 (quoting Ex. 1006, 34:39–41, citing *id.* at 31:36–39, 35:60–63, Fig. 19).

Petitioner asserts that “either or both [of DisplayPort and USB] connector types” may be used at the sink and the source devices, and that “Zhu discloses that the mixed mode embodiment of Figure 35c includes a distinct physical side band channel (second physical channel) in the form of either a C-wire (in the USB-type connector) or a differential AUX wire pair (in the DisplayPort-type connector).” Pet. 29–30 (citing Ex. 1006, 36:28–35, Fig. 35c; Ex. 1003 ¶ 77).

Petitioner asserts that Zhu discloses that control data for device configurations is sent over the Display Port AUX channel. *Id.* at 30 (citing Ex. 1006, 1:52–57; Ex. 1003 ¶ 79). Additionally, Petitioner asserts that “[t]he C-wire . . . may communicate data signals for various control functions.” *Id.* at 30–31 (citing Ex. 1006, 26:38–27:13, 27:17–27, 27:34–37, 29:14–17, 29:26–29). Additionally, Petitioner contends that, in Zhu’s mixed mode, source and sink exchange control data “over the DisplayPort AUX channel.” *Id.* at 31–32 (citing Ex. 1006, 34:39–41, 35:58–66; Ex. 1003 ¶ 80). Petitioner contends that one of ordinary skill in the art “would understand that the ‘AUX channel’ described in that portion of Zhu may be implemented either as a distinct, dedicated DisplayPort AUX channel or as a C-wire that carries AUX channel signals.” *Id.* at 32 (citing Ex. 1003 ¶ 80). Lastly, Petitioner asserts that one of ordinary skill “would understand that the previously-discussed AUX and C-wire signals are ‘control data.’” *Id.* (citing Ex. 1003 ¶ 81).

Upon examination of these arguments and the cited portions of Zhu, we determine that there are certain weaknesses that call into question the strength of the contentions with respect to limitation 1.c of claim 1. Certain cited portions of Zhu, *e.g.*, Ex. 1006, 1:52–57, 5:6–17, 20:7–57, 26:28–36, relate to the transfer of data according to the Display Port communication standard, which defines both the transfer of multimedia content data and certain additional information needed for “correct transmission of the multimedia content.” Ex. 1006, 1:52–57. Thus, while Petitioner asserts that the DisplayPort data lane (without side-band channel) discloses the claimed “a first physical channel” (Pet. 22–24), on this preliminary record, there is a reasonable question as to whether one of ordinary skill in the art would consider the side-band channel as part of the first physical channel because the side-band channel is necessary for the correct transmission of the video data.

While Petitioner cites the receipt by the source device of a number of bytes of data to be sent in the backward direction from the sink device (Pet. 31, citing Ex. 1006, 34:39–41, 35:58–66; Ex. 1003 ¶ 80), this relates to traffic from sink to source as opposed to the traffic described in limitation 1c. On this record, Petitioner’s strongest argument is that the source device may send an inquiry to the sink “over the AUX channel.” Pet. 31. However, Petitioner’s subsequent contentions that one of ordinary skill would have understood that a “distinct, dedicated DisplayPort AUX channel” or the USB C-wire would have been used as this “AUX channel” does not address that the existing DisplayPort AUX channels (and a C-wire transmitting the signals of those channels in the case of a USB port) have a pre-existing use according to the DisplayPort standard. Pet. 32; Ex. 1006,

1:52–57, 5:4–11. Additionally, Petitioner’s declarant’s assertion that “previously discussed side-band channel signals” are control data “because they include data and are communicated for the purposes of control” does not specifically discuss how the cited “inquiry” message, which is the message sent from source to sink during Zhu’s mixed mode (Ex. 1006, 35:60–63), includes data. Ex. 1003 ¶ 81 (cited at Pet. 32).

We determine that the showing with respect to claim 1 as anticipated by or obvious over Zhu is not particularly strong on this preliminary record for the reasons noted above.

(3) Analysis of Claims 2, 10–12, and 20–22

Petitioner’s arguments with respect to independent claims 11, 21, and 22 rely on the arguments discussed above. Pet. 20–32, 39, 48. Petitioner’s assertions with respect to dependent claims 2, 10, 12, and 20 rely on the arguments with respect subject matter of the independent claims from which they depend. *Id.* at 32–35. Thus, for the same reasons discussed above, we determine that the showing with respect to these claims is not particularly strong.

d) Alleged Obviousness of Claims 1–3, 10–13, 17, and 20–22 Over Zhu and DisplayPort1.2

Petitioner contends that claims 1–3, 10–13, 17, and 20–22 would have been obvious over a combination of Zhu and DisplayPort1.2 Pet. 49–65. These contentions rely on similar arguments to those discussed above. Petitioner cites DisplayPort1.2 as “disclosing bidirectional communication of control data between source and sink over a physical AUX channel . . . that is distinct from Main Link lanes.” Pet. 51–53 (citing Ex. 1032, 34; Ex. 1003 ¶¶ 128–131). Petitioner emphasizes that the AUX channel of DisplayPort is physically separate from the data lanes. *Id.* at 53. However,

again, the question remains as to whether the “first physical channel” of limitation 1a, in order to send DisplayPort information according to the DisplayPort standard as Petitioner argues, would require the inclusion of the AUX channels, and whether and how one of ordinary skill in the art would have implemented a separate “distinct, dedicated” AUX channel (Pet. 32), separate from the AUX channel as disclosed in DisplayPort1.2. While Petitioner makes a showing in this ground that the AUX channel and data lanes in Display Port are distinct physical channels, a question regarding whether the AUX channel would be necessary to the communication of media data in limitation 1a of claim 1 (and similar limitations in claims 11, 21, and 22) remains, and we find this ground not particularly strong.

e) Alleged Obviousness of Claims 1, 2, 10–12, 17, and 20–22 Over Lyle and Alleged Obviousness of Claims 2, 3, 12, 13, and 17 Over Lyle and Shin

Petitioner contends that claims 1, 2, 10–12, 17, and 20–22 would have been obvious over Lyle. Pet. 65–84. Petitioner additionally contends that claims 2, 3, 12, 13, and 17 would have been obvious over a combination of Lyle and Shin. *Id.* at 84–87.

(1) Lyle

Lyle relates to a communication system in which video data and auxiliary data, including timing data, is transmitted to a receiver over a link that uses time division multiplexing. Ex. 1008, code (57). Lyle discloses DDC lines of a DVI link can be used to transmit auxiliary data to a receiver. *Id.* at 28:27–28. When used “in accordance with the conventional Display Data Channel standard,” this channel allows transmission by a monitor of an Extended Display Identification (EDID) message that specifies characteristics of the monitor. *Id.* at 28:29–36. The DDC lines are also used to initialize and authenticate an HDCP link. *Id.* at 28:29–36. Video data

transmission channels may be reversed to send auxiliary data from the receiver of the video data to the transmitter. *Id.* at 45:43–48.

(2) *Analysis of Petitioner’s Claim 1 Contentions Relating to Lyle*

For limitation 1.c of claim 1, Petitioner relies on the DDC lines, and on the transmission from a sink device of an EDID message. Pet. 72–73 (citing Ex. 1008, 2:17–23; Ex. 1003 ¶ 172). Petitioner asserts that this EDID message would be control data. However, Lyle discloses that the EDID message is sent from the sink device to the source device, which is not what is claimed in limitation 1.c. *See id.* at 73 (“For example, Lyle explains that, over the DDC bus (*second physical channel*), a monitor (*sink device*) transmits ‘an Extended Display Identification (“EDID”) message that specifies various characteristics of the monitor”).

Petitioner additionally relies for limitation 1.c on the discussion in Lyle that the source device would transmit “control signals for the monitor” in response. *Id.* at 73 (citing Ex. 1008, 2:17–23; Ex. 1003 ¶ 172). With respect to this assertion, this data appears to be related to the “conventional” Display Data Channel standard for providing control signals for the monitor, and to be required for the transmission of encrypted digital video and the transmission of values necessary to decrypt transmitted encrypted data. Ex. 1008, 2:17–23, 2:57–3:3 (processing of the DDC data required to “recover the original input video data”). While Lyle does describe the transmission of auxiliary data including audio data and control data over a conventional video link during blanking periods of the video data (*see, e.g.*, Ex. 1008, 11:26–50), the specific portions of Lyle cited by Petitioner for limitation 1c appear to be related to the conventional uses of the channels to transmit usable video data to a receiver. Thus, with respect to claim 1, we determine

that the showing with respect to claim 1 as obvious over Lyle is not particularly strong on this preliminary record.

(3) *Analysis of Claims 2, 10–12, 17, and 20–22 – Obviousness Over Lyle*

Petitioner’s arguments with respect to independent claims 11, 21, and 22 rely on the arguments discussed above. Pet. 65–72, 79–81, 83.

Petitioner’s assertions with respect to dependent claims 2, 10, 12, 17, and 20 rely on the arguments with respect to subject matter of the independent claims from which they depend. *Id.* at 73–75. Thus, for the same reasons discussed above, we determine that the showing with respect to these claims is not particularly strong.

(4) *Analysis of Claims 2, 3, 12, 13, and 17 – Obviousness Over Lyle and Shin*

Petitioner’s arguments with respect to the obviousness of claims 2, 3, 12, 13, and 17 rely on the arguments with respect to Lyle and dependent claims 1 and 11, from which these claims depend. Thus, for the same reasons discussed above, we determine that the showing with respect to these claims is not particularly strong.

2. *Conclusion Regarding the Merits*

The discussion above identifies weaknesses in the Petition that we have considered in our evaluation of *Fintiv* factors. While we do not make a determination regarding whether the Petition shows that there is a reasonable likelihood of prevailing were we to institute, for the reasons given, we determine that this Petition does not present particularly strong merits.

G. *Weighing the Fintiv Factors*

We have considered the circumstances and facts before us in view of the *Fintiv* factors. We take “a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review”

when evaluating these factors. *Fintiv* at 6. Because of the *Sotera* stipulation, factor 4 weighs strongly in favor of not exercising discretion. However, two other factors weigh in favor of exercising discretion, especially the trial date factor. The merits of Petitioner's challenge are not particularly strong. A balanced assessment of the factors leads us to exercise discretion to deny the Petition.

Therefore, we conclude that the evidence of record favors exercising our discretion under 35 U.S.C. § 314(a) to deny institution of an *inter partes* review.

IV. CONCLUSION

Upon consideration of the Petition, the Preliminary Response, the Preliminary Reply, the Preliminary Sur-reply, and the evidence presented, we exercise our discretion under 35 U.S.C. § 314(a) to deny institution of an *inter partes* review challenging claims 1–3, 10–13, 17, and 20–22 of the '103 patent.

V. ORDER

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

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Patent 9,852,103 B2

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