

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

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

v.

UNIVERSAL CONNECTIVITY TECHNOLOGIES INC.,
Patent Owner.

Case IPR2024-01482
Patent 7,856,520

**PETITIONER'S REPLY TO PATENT OWNER'S PRELIMINARY
RESPONSE**

EXHIBITS

Exhibit 1001	U.S. Patent No. 7,856,520 (“’520 patent”)
Exhibit 1002	File History of the ’520 patent
Exhibit 1003	Declaration of Brian A. Berg (“Berg”)
Exhibit 1004	Curriculum Vitae of Brian A. Berg
Exhibit 1005	US Patent Application No. 2006/0095596 A1 to Lin Che Yung, et al. (“Yung”)
Exhibit 1006	HDMI Specification Version 1.3 and a CEC 1.3 Supplement (“HDMI 1.3”)
Exhibit 1007	Design of a Multicode Bi-phase Encoder for Data Transmission, Raida Al-Alawi et al., Journal of Circuits Systems and Computers, February 2006 (“Al-Alawi”)
Exhibit 1008	Declaration of Steve Venuti
Exhibit 1009	Universal Connectivity Techs. Inc. v. Lenovo Grp. Ltd., No. 2:23-cv-00449-JRG, Dkt. 1-15
Exhibit 1010	Declaration of June Ann Munford
Exhibit 1011	Universal Serial Bus Specification, Revision 2.0, April 27, 2000 (“USB 2.0”)
Exhibit 1012	HDMI Specification Version 1.0 (“HDMI 1.0”)
Exhibit 1013	HDMI Specification Version 1.1 (“HDMI 1.1”)
Exhibit 1014	Lenovo (United States) Inc. <i>Sotera</i> Stipulation
Exhibit 1015	Lenovo Group Limited <i>Sotera</i> Stipulation

Exhibit 1016 Dell Inc., Dell Technologies, Inc. *Sotera* Stipulation

Exhibit 1017 HP Inc. *Sotera* Stipulation

A. Patent Owner Relies on an Incorrect Implicit Claim Construction that is Contrary to the Plain Claim Language in Attempting to Distinguish the Yung/HDMI 1.3 Combination

First, Patent Owner argues that the combination of Yung and HDMI 1.3 does not satisfy independent claims 1, 12, and 19 because this combination “does not disclose how DDC commands and CEC commands can be converted into data packets and transmitted on a single-bit control bus.” Prelim. Resp. at 31; *see id.* at 39–40 (claim 12), 42–43 (claim 19). This argument, however, relies on an incorrect implicit claim construction requiring that a plurality of control signals of a plurality of different types (e.g., CEC and DDC signals) must be converted into one or more data packets and transmitted via the first control bus. *Id.* at 30. The plain claim language of independent claims 1, 12, and 19, however, demonstrates that no such requirement for multiple control signals exists.

The claim language merely recites “converting *one or more control signals* for a standard protocol to one or more data packets, each of *the one or more control signals* representing *one of a plurality of different types of control signals*,” and “transmitting the generated data packets from the first device to the second device via the first control bus.” Patent Owner’s implied construction altogether disregards—indeed omits—the “one or more” language in the claim term “one or more control signals.” *Id.* at 30–34; *see, e.g., id.* at 30, 34 (Patent Owner using ellipses to omit the “one or more” language preceding “control signals representing

one of a plurality of different types of control signals” in claim 1). The use of “one or more” means that only one control signal representing one of a plurality of types need be converted to “one or more” packets and then transmitted to the second device. Thus, converting only one control signal of one of a plurality of types (i.e., a CEC control signal as opposed to another type of control signal, such as a DDC signal) to generate one packet that is transmitted satisfied this claim language. Patent Owner improperly reads in a requirement that multiple, i.e. two or more, control signals having a plurality of types must be converted and transmitted. Patent Owner, therefore, offers no basis for arguing that the CEC signals in the combination of Yung and HDMI 1.3 do not satisfy the claimed “one or more control signals.” Pet. at 30–35, 57–58, 63.

Second, Patent Owner relies on this same improper implicit construction when it argues that HDMI-C cannot be a “modified protocol” because, according to Patent Owner, HDMI-C, like HDMI-A, allegedly does not convert multiple control signals representing a plurality of types to packets to be transmitted via the first control bus and instead only transmits CEC signals via the CEC bus. *See* Prelim. Resp. at 35–36, 40, 43–44. But, as noted above, the claim language only requires “one or more” control signals to be converted to the “one or more data packets,” which allows one control signal of one of a plurality of types to be converted to one or more packets. Nothing in the claim language suggests that the modified protocol or standard

protocol requires multiple control signals each having a different type must be converted to one or more data packets and then transmitted. Patent Owner thus fails to rebut the assertion that the HDMI-C protocol satisfies the claimed “modified protocol.” Pet. at 35–46, 60, 67.

B. The *Fintiv* Factors Weigh in Favor of Institution

Petitioners have submitted *Sotera* stipulations (Exs. 1014-17), utilizing the verbatim language requested by the Board in its March 3, 2025 email authorizing submission of stipulations and this reply. The *Sotera* stipulations prevent raising the same grounds or grounds that reasonably could have been raised in the Petition from being litigated in the District Court cases, if institution is granted. There will thus be no overlap between the grounds raised in this IPR, or any ground that could have been raised, and the corresponding District Court cases, eliminating the inefficiency and fairness concerns underlying the Board’s discretion to deny institution under *Fintiv*. *Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 at 19 (PTAB Dec. 1, 2020) (precedential, designated Dec. 17, 2020).

While the Director’s June 2022 Guidance was recently rescinded, Petitioner’s *Sotera* stipulations nonetheless resolve the *Fintiv* analysis strongly against discretionary denial.

Fintiv Factor 1 is neutral or disfavors denial. Neither party in the LGL Case (E.D. Tex.) has, as of yet, requested a stay pending IPRs. *Apple Inc. v. Fintiv, Inc.*,

IPR2020-00019, Paper 15, p.12 (PTAB May 13, 2020) (“Fintiv II”) (declining to “infer” how the district court “would rule should a stay be requested”). The Dell Case has been stayed in its entirety pending IPRs. EX2003 at 9. The HP court indicated it would reconsider a stay if petitions were instituted.

Fintiv Factor 2 is neutral or disfavors denial. Petitioners’ *Sotera* stipulations eliminate potential overlap or conflict between the district court cases and this IPR, mitigating concerns related to trial schedules. Moreover, any potential risk is further mitigated by the growing backlog of cases in E.D. Tex. (e.g., increasing median time-to-trial statistics) and associated scheduling uncertainty. The Dell Case has been stayed (EX2003 at 9) and trial in the HP Case will not occur until at least 5 months ***after*** the anticipated final written decision.

Fintiv Factor 3 is neutral or disfavors denial. The *Sotera* stipulations will prevent overlap, ensuring that the IPR will be a true alternative to District Court litigation. Moreover, claim construction analysis in the LGL Case remains early, with no substantive briefing and no *Markman* order yet issued. To be clear, Patent Owner ignores, and implicitly acknowledges, that the parties and courts have not made substantial investment in either the Dell Case or the HP Case. The Dell Case was stayed. EX2003 at 4-5. The HP *Markman* hearing will not occur earlier than May 21, 2025, after institution decisions and potential stay. *Id.* at 10.

Fintiv Factor 4 strongly disfavors denial. To eliminate any doubt as to the

absence of meaningful overlap between the District Court and IPR, Petitioners submit *Sotera* stipulations, using the specific language indicated by the Panel in authorizing Petitioners' request, with respect to the pending litigations. Ex. 1014-17. Factor 4 strongly disfavors denial, at least because Petitioners' stipulation guarantees that the prior art relied on in this IPR, or that could have been brought in this IPR, will not be relitigated/otherwise litigated in the District Court proceedings. As the Board held in *Sotera*, such a stipulation "mitigates any concerns of duplicative efforts between the district court and the Board, as well as concerns of potentially conflicting decisions," and Factor 4 thus "weighs strongly in favor of not exercising discretion to deny institution under 35 U.S.C. § 314(a)." *Sotera*, Paper 12 at 19.

Fintiv Factor 5 is, at worst, neutral. *Fintiv* did not suggest Factor 5 favors denial when the petitioner and the defendant in the parallel proceeding are the same, instead noting that "if a petitioner is unrelated" the Board has weighed that "fact against exercising discretion." *Fintiv*, 13-14.

Fintiv Factor 6 strongly disfavors denial. The strength of the merits alone outweighs any potential inefficiencies (which, as discussed above, the *Sotera* stipulations eliminate). *Fintiv*, 14-15 ("if the merits of a ground raised in the petition seem particularly strong...institution of a trial may serve...overall system efficiency and integrity"). The petition, supported by corroborated expert testimony, if unrebutted in trial, leads to a conclusion that one or more claims are unpatentable.

Respectfully submitted,

Dated: 3-10-25

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CERTIFICATE OF SERVICE

Pursuant to 37 CFR §§ 42.6(e)(1) and 42.6(e)(4)(iii), the undersigned certifies that on March 10, 2025, a complete and entire copy of this Petitioner's Reply to Patent Owner's Response and corresponding exhibits were provided via email to the Patent Owner by serving the email correspondence addresses of record as follows:

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