

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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MARVELL SEMICONDUCTOR, INC.,  
Petitioner,

v.

CREDO TECHNOLOGY GROUP LTD.,  
Patent Owner.

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Case IPR2025-01219  
U.S. Patent No. 11,012,252

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**PATENT OWNER'S REQUEST FOR DISCRETIONARY DENIAL**

Mail Stop "Patent Board"  
Patent Trial and Appeal Board  
U.S. Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

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<b>Exhibit</b>	<b>Description</b>
2001	In re Certain Active Electrical Cables and Components Thereof, Inv. No. 337-TA-3814, Complaint (Mar. 13, 2025).
2002	“Credo Introduces PAM4 DSP for High Performance Data Centers and Enterprise Networks,” March 17, 2021, <a href="https://credosemi.com/credo-introduces-pam4-dsp-for-high-performance-data-centers-and-enterprise-networks/">https://credosemi.com/credo-introduces-pam4-dsp-for-high-performance-data-centers-and-enterprise-networks/</a>
2003	“AEC Applications,” <a href="https://credosemi.com/products/hiwire-aec/applications/">https://credosemi.com/products/hiwire-aec/applications/</a>
2004	“Credo Introduces 800G HiWire ZeroFlap AECs to Support AI Backend Networks,” October 10, 2024, available at <a href="https://s205.q4cdn.com/511065572/files/doc_news/2024/10/credo-introduces-800g-hiwire-zeroflap-aecs-to-support-ai-backend-networks.pdf">https://s205.q4cdn.com/511065572/files/doc_news/2024/10/credo-introduces-800g-hiwire-zeroflap-aecs-to-support-ai-backend-networks.pdf</a>
2005	“CREDO Receives Cabling Installation & Maintenance Innovators 2019 Gold Award for HiWire™ Active Electrical Cables (AEC),” October 1, 2019, <a href="https://credosemi.com/news/credo-receives-cabling-installation-maintenance-innovators-2019-gold-award-for-hiwire-active-electrical-cables-aec/">https://credosemi.com/news/credo-receives-cabling-installation-maintenance-innovators-2019-gold-award-for-hiwire-active-electrical-cables-aec/</a>
2006	“Credo Files AEC Patent Infringement Complaint Against Amphenol, Molex, TE Connectivity, and Volex with United States International Trade Commission,” March 13, 2025, <a href="https://investors.credosemi.com/news-events/news/news-details/2025/Credo-Files-AEC-Patent-Infringement-Complaint-Against-Amphenol-Molex-TE-Connectivity-and-Volex-with-United-States-International-Trade-Commission/default.aspx">https://investors.credosemi.com/news-events/news/news-details/2025/Credo-Files-AEC-Patent-Infringement-Complaint-Against-Amphenol-Molex-TE-Connectivity-and-Volex-with-United-States-International-Trade-Commission/default.aspx</a>
2007	RESERVED
2008	Order No. 12 Granting Marvell’s Motion to Disqualify Fish, 337-TA-1446, public version
2009	Bert Reiser & Ruthie Wu, Why the International Trade Commission is such an appealing forum for patent disputes,” Reuters (June 11, 2025), <a href="https://www.reuters.com/legal/legalindustry/why-international-trade-commission-is-such-an-appealing-forum-patent-disputes-2025-06-11/">https://www.reuters.com/legal/legalindustry/why-international-trade-commission-is-such-an-appealing-forum-patent-disputes-2025-06-11/</a>
2010	Order No. 19 Granting Motion to Amend Procedural Schedule, 337-TA-1446

<b>Exhibit</b>	<b>Description</b>
2011	Respondents' Initial Invalidation Contentions, In the Matter of Certain Active Electrical Cables and Components Thereof, Inv. No. 337-TA-1446, served June 26, 2025
2012	U.S. Patent No. 10,148,414 ("Lugthart414")
2013	U.S. Patent No. 7,762,727 ("Aronson727")
2014	Exhibit B-4 to the ITC Respondents' preliminary invalidity contentions
2015	Exhibit B-11 to the ITC Respondents' preliminary invalidity contentions
2016	RESERVED
2017	Exhibit B-1 to the ITC Respondents' preliminary invalidity contentions
2018	RESERVED
2019	USPTO, "FAQs for Interim Processes for PTAB Workload Management," available at <a href="https://www.uspto.gov/patents/ptab/faqs/interim-processes-workload-management">https://www.uspto.gov/patents/ptab/faqs/interim-processes-workload-management</a>

Patent Owner Credo Technology Group Ltd. (“Credo”) respectfully requests that the Board deny institution of the Petition filed by Marvell Semiconductor, Inc. (“Marvel”) challenging the patentability of claims 1-14 (“challenged claims”) of U.S. Patent No. 11,012,252 (“the ’252 Patent”) (Ex-1001).

## **I. INTRODUCTION**

The Petition should be denied as an inefficient use of the Board’s time and resources, particularly in view of the earlier-filed Section 337 investigation pending at the ITC (Inv. No. 337-TA-1446) (the “ITC Investigation”), which is set to conclude prior to the issuance of any Final Written Decision in this proceeding.

Credo is an American innovator. Its patented technologies power the next generation of high-speed, energy-efficient data center interconnects. The ’252 patent is one of two patents that Credo is currently asserting in the earlier-filed ITC Investigation. These patents are not abstract ideas or litigation assets; they are the foundation of Credo’s HiWire® active electrical cable (“AEC”) products. Credo and its employee inventors earned these patents through innovation and after careful and transparent examination by the U.S. Patent and Trademark Office (the “Office”). Having built a successful line of AEC products embodying its patents, Credo is now asserting its patents rights to protect its innovation and investment.

The ITC Investigation underscores the stakes associated with these patents and the urgency of their enforcement. Credo seeks exclusionary relief to protect its

core technology from infringement by competitors. Fact discovery is nearly complete, and the ITC Investigation is proceeding toward an evidentiary hearing on the merits. Even under the most conservative timeline, the ITC Investigation is and will remain well ahead of this proceeding. The ITC Administrative Law Judge (“ALJ”) is scheduled to conduct the evidentiary hearing starting on March 30, 2026, and the Commission is expected to complete the ITC Investigation by December 17, 2026—months *before* February 13, 2027, when a Final Written Decision would be expected in this IPR (“FWD Date”). The ITC will therefore have adjudicated validity of the subject patent before the PTAB reaches the FWD Date. Proceeding with this IPR would result in judicial inefficiency. Meanwhile, the underlying legal and factual issues before the ITC and the PTAB are substantially the same. The patents are the same, the challenged claims are the same, the asserted prior art is essentially the same,<sup>1</sup> and both parties are involved in the ITC Investigation. All six of the *Fintiv* factors support discretionary denial.

Beyond *Fintiv*, this proceeding presents precisely the situation the Acting Director envisioned when issuing new guidelines on discretionary denial in March

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<sup>1</sup> Respondents’ preliminary invalidity contentions before the ITC include references with different numbers but have near-identical disclosures to those in the IPR grounds. *See* § IV.A.4, *infra* (addressing *Fintiv* factor 4).

2025. Stewart Memo.<sup>2</sup> That guidance reaffirmed the Acting Director’s authority to deny institution not only to prevent inefficient use of the Board’s resources, but also to protect the integrity of the patent system as a whole. That integrity depends on the reasonable expectations of patent owners who play by the rules, prosecute diligently, disclose truthfully, and invest in commercialization.

Credo did all of this. It earned its patents under a well-functioning patent examination process before the Office. Credo also built its successful line of AEC products around its patents. And now, Credo is using those patents productively in a good-faith enforcement campaign to protect Credo’s investment. Petitioner Marvell, though not named as a Respondent in the ITC Investigation, is involved in the ITC Investigation as the supplier of digital signal processors (“DSPs”) to its customers, Respondents Molex LLC and TE Connectivity LLC (the “ITC Respondents”). The ITC Respondents are challenging the validity of the ’252 Patent based on essentially the same prior art that Marvell asserts here. Now, as the ITC Investigation nears the end of fact discovery, Marvell seeks to use the PTAB as an insurance policy against an adverse ruling at the ITC, which could affect Marvell’s profit margin. The Petition offers nothing new compared to the

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<sup>2</sup> Memo to All PTAB Judges from Coke Morgan Stewart Regarding the Interim Processes for PTAB Workload Management (March 26, 2025) (“Stewart Memo”).

prior art and arguments already at issue in the ITC Investigation. It is simply an effort to disrupt Patent Owner's enforcement in its chosen jurisdiction.

This scenario is not why Congress created *inter partes* review. Indeed, this scenario is what discretionary denial was designed to prevent. The PTAB's resources are not an insurance policy against ongoing litigation that is already addressing the same issues in another forum. The PTAB is one component of a balanced and efficient patent system, entrusted with the authority to decline review when institution would undermine—not promote—fairness, efficiency, and technological progress. Denial of institution in this proceeding under § 314(a) advances these objectives and is necessary to protect the role of the PTAB as a partner in a functional U.S. patent system. The bifurcated discretionary denial process reflects a clear policy shift toward protecting patent owner expectations and avoiding duplicative proceedings—precisely the situation presented here.

## **II. CREDO'S PATENTED TECHNOLOGY**

The application that issued as the '252 Patent was filed on August 13, 2019, and issued on May 18, 2021. Credo is the original assignee and owner of the '252 Patent. The patent was neither recently-acquired nor dormant. Instead, it arose directly from Credo's extensive research into and development of AEC technology, *i.e.*, high-speed Ethernet cables with integrated digital signal-processing electronics to minimize signal attenuation and maximize data transmission speeds.

The '252 patent also protects Credo's AEC products. It embodies critical features that improve cable performance, such as advanced transmitter and receiver equalization, adaptive equalization, and retiming. *See* Ex-2001, 5-12 (summarizing the technology, patents, and products at issue).

The '252 patent is critically important to Credo for its protection of Credo's advanced AEC products. These products have led to important commercial uses, including "high-performance serial connectivity solutions for the Hyperscale data center, 5G carrier, enterprise networking, artificial intelligence, and high-performance computing markets." Ex-2002; *see also* Ex-2003 ("The demand for cloud computing, instant data streaming, and emerging applications including 5G, AI, and machine learning have pushed Hyperscale, enterprise and edge data centers to accelerate the deployment of 400G and 800G networks").

By 2024, Credo reported "millions of units" of AEC products deployed at Credo's tier-1 hyperscaler customers.<sup>3</sup> *See* Ex-2004. The AEC products have won industry awards and play a significant role in modern data center architectures. Ex-2005. Credo's Senior Vice President of Products noted that the company "invented AECs" based on years of engineering and has invested tens of millions of dollars developing this pioneering technology. *See* Ex-2006. Credo's long-term

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<sup>3</sup> "Hyperscalers" refer to large providers of cloud computing and storage.

investment and active marketing underscore how these patents are central to Credo's business, not idle paper patents. Indeed, Credo's overall solutions portfolio explicitly includes AEC cables alongside its semiconductor integrated circuit (IC) products. Protecting these patented AEC innovations is strategically vital for Credo's competitive position in high-speed connectivity.

### III. LEGAL STANDARDS

#### A. Discretionary Denial Under 35 U.S.C. § 314(a)

Instituting or denying a petition under § 314(a) “is a matter committed to the Patent Office’s discretion.” *Cuozzo Speed Techs., LLC v. Lee*, 579 U.S. 261, 273 (2016); *see also Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1367 (Fed. Cir. 2016) (under §314(a) “the PTO is permitted, but never compelled, to institute an IPR proceeding”). In *NHK*, the Board denied institution under § 314(a) because the parallel district court proceeding was scheduled to end before the FWD deadline and “Petitioner assert[ed] the same prior art and arguments.” *NHK Spring Co Ltd v. Intri Plex Technologies Inc.*, IPR2018-00752, Pap. 8, at 19-20 (Sep. 10, 2019).

*Fintiv* articulated six factors (*infra* § IV.A) to consider in determining whether to deny institution based on a parallel litigation. *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Pap. 11, at 5-6 (Mar. 20, 2020) (“*Fintiv*”).

The Office has also made clear that “the Board will apply the *Fintiv* factors when there is a parallel proceeding at the International Trade Commission.”

Boalick Memo, at 2.<sup>4</sup> Further, “the Board is more likely to deny institution where the ITC’s projected final determination date is earlier than the Board’s deadline to issue a final written decision...” *Id.*

## **B. Recent USPTO Guidance**

The Stewart Memo specified a bifurcated approach for considering discretionary denial, and identified additional factors to consider:

- Whether the PTAB or another forum has already adjudicated the validity or patentability of the challenged patent claims;
- Whether there have been changes in the law or new judicial precedent issued since issuance of the claims that may affect patentability;
- The strength of the unpatentability challenge;
- The extent of the petition’s reliance on expert testimony;
- Settled expectations of the parties, such as the length of time the claims have been in force;
- Compelling economic, public health, or national security interests;
- Any other considerations bearing on the Director’s discretion.

As explained below, denial is warranted under § 314(a) based on these factors.

Credo has developed settled expectations and there is no sufficient justification for institution. *See* § IV.B.1, *infra*. Furthermore, Marvell’s contentions in its Petition

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<sup>4</sup> Memorandum, Guidance on USPTO’s rescission of Interim Procedure for Discretionary Denials (Mar. 24, 2025), at 2 (“Boalick Memo”)

rely on expert testimony to gap-fill prior art disclosures in addressing limitation [1.e]. *See* §0, *infra*. Thus, institution denial is appropriate under these circumstances to “improve PTAB efficiency, maintain PTAB capacity to conduct AIA proceedings, . . . and promote consistent application of discretionary considerations in the institution of AIA proceedings.” Stewart Memo, 3.

#### **IV. DISCRETIONARY FACTORS FAVOR DENIAL OF INSTITUTION**

##### **A. The *Fintiv* Factors Weigh in Favor of Discretionary Denial**

Petitioner Marvell, though not named as a Respondent in the earlier-filed ITC Investigation, is involved in the ITC Investigation as the supplier of DSPs to its customers, the ITC Respondents. Marvell has provided extensive technical discovery in the ITC Investigation. Marvell also successfully moved to disqualify Credo’s original ITC counsel based on its client relationship with Marvell. *See* Ex-2008. As such, Marvell has demonstrated a vested and active interest in the ITC Investigation, arguing that an adverse ruling there would directly impact Marvell’s sales of DSPs to the ITC Respondents. *See* Ex-2008, 11-12.

The ITC Respondents are challenging the validity of the ’252 Patent based on essentially the same prior art that Marvell asserts here. Now, as the ITC Investigation nears the end of fact discovery, Marvell seeks to use the PTAB as an insurance policy against an adverse ruling at the ITC, which could affect Marvell’s profit margin. The Petition offers nothing new compared to the prior art and

arguments already at issue in the ITC Investigation. It is simply an effort to disrupt Patent Owner's enforcement in its chosen jurisdiction.

**1. Factor 1—The ITC Investigation Will Not Be Stayed**

No stay has been requested in the ITC investigation. And if one were, the stay is unlikely to be granted. Ex-2009, 2 (“discovery proceeds at a more expedited pace in the ALJ setting, and ITC proceedings are rarely stayed”) (emphasis added). The ITC is under a congressional mandate to conclude its investigations and make determinations “at the earliest practicable time.” 19 U.S.C. § 1337(b)(1). The ITC typically does not stay its proceedings based on a pending IPR.

**2. Factor 2—The ITC's Projected Final Determination Date Is Earlier Than the FWD Deadline**

The projected statutory deadline for issuing a FWD in this proceeding is February 13, 2027 (“FWD Date”). By contrast, the Commission is expected to issue a Final Determination two months earlier, by December 17, 2026. As such, it is unlikely that any FWD in this proceeding would issue before the ITC completes its investigation. *See Caihong Display Devices Co. Ltd v. Corning, Inc.*, IPR2025-00439, Pap. 18, at 2 (Jul. 10, 2025) (“*Caihong*”) (finding that “it is unlikely that a final written decision in this proceeding will issue before the final determination in the ITC investigation” because “the projected final written decision due date for this proceeding is September 10, 2026” and “the target date for completion is

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August 7, 2026”); *see also* Boalick Memo, 2 (“[I]nstituting an IPR or a PGR where the ITC has set a target date for completing its investigation (*i.e.*, the full Commission’s final determination) to occur earlier than the Board’s deadline to issue a final written decision in a challenge involving the same patent claims means that multiple tribunals may be adjudicating validity at the same time, which may increase duplication and expenses for the parties and the tribunals”).

*Fintiv* factor 2 therefore weighs in favor of denial. *See Biofrontera Inc. v. Sun Pharmaceutical Industries, Inc.*, IPR2025-00287, Pap. 10 (Jul. 2, 2025) (denying institution based on a parallel ITC investigation scheduled to complete before FWD); *see also Ringconn LLC, v. Ouraring, Inc.*, PGR2025-00018, Pap. 11 (Jun. 25, 2025) (same); *see also Ultrahuman Healthcare SP LLC et al. v. Ouraring Inc.*, IPR2025-00411, Pap. 12 (Jun. 25, 2025) (same).

As discussed in § IV.A.4, *infra*, the ITC Investigation also presents overlapping issues with the IPRs, including Marvell’s reliance on substantially the same prior art and arguments that its customer-respondents are pursuing in the ITC Investigation. The Respondents have not filed a stipulation or otherwise narrowed their invalidity positions before the ITC in a manner that would prevent duplication. Thus, the ITC’s early resolution will directly address the asserted grounds of unpatentability Marvell asks the Board to institute in this proceeding. If the Board were to proceed, it would not be providing an efficient alternative to

litigation but rather a second, duplicative review of issues already adjudicated.

**3. Factor 3—Fact Discovery and Expert Reports Will Complete Before a Decision on Institution**

Factor 3 weighs in favor of discretionary denial because the parties will have committed significant resources to the ITC Investigation by the time this proceeding reaches a Decision on Institution (“DI”), and that investment will only increase if it progresses to a final written decision (by November 2026).

Fact discovery in the ITC Investigation will close in less than one month, on November 7, 2025. Opening and rebuttal expert reports will be served by December 17, 2025, and expert discovery will be complete by January 16, 2026. All of this activity will occur in the ITC Investigation *before* the DI deadline of February 13, 2026. In practical terms, the ITC Investigation will be well past its half-way point by the time the Board even considers institution. Under these circumstances, Fintiv factor 3 favors denying institution. *See Caihong*, at 2 (finding that “there has been meaningful investment” in a parallel ITC investigation because the parties will “have exchanged expert reports” and “complete fact discovery before a decision on institution is due”); *Arashi Visionus LLC v. GoPro Inc.*, IPR2025-00017, Pap. 11, at 11 (Apr. 28, 2025).

If this proceeding is instituted, the parties’ investment in the ITC Investigation will increase by the FWD Date. The ITC evidentiary hearing is

scheduled to be completed the week of March 30, 2026—over 10 months before the FWD. Ex-2010, 3. Further, the Administrative Law Judge is scheduled to issue an initial determination in the ITC Investigation by August 17, 2026 (roughly six months before FWD) and the target date for completion of the ITC Investigation is December 17, 2026 (roughly two months before FWD). Ex-2010, 2.

**4. Factor 4—The Petition Overlaps Completely With the ITC Investigation**

Marvell relies here on the same prior art disclosures to address the same claims of the '252 patent (claims 1-14) that Marvell’s customers are asserting in the ITC. Compare Ex-2011, 134, and Pet., 2. This overlap is summarized below.

ITC Preliminary Invalidity Contentions			IPR Grounds 1-3		
Claims	Reference	Exhibit	Claims	Reference	Exhibit
1-14	Cornelius	Ex-1006	1-14 (Ground 1) (Ground 2)	Cornelius	Ex-1006
1-14	Samaan	Ex-1007	1-14 (Ground 1) (Ground 2)	Samaan	Ex-1007
1-14	Lugthart414	Ex-2012	1-14 (Ground 2) (Ground 3)	Lugthart	Ex-1004
1-14	Aronson727	Ex-2013	1-14 (Ground 3)	Aronson389	Ex-1005

**a) Marvell Applies the Same Disclosure From the Same Cornelius Reference as the ITC Respondents**

The ITC Respondents relied upon Cornelius (U.S. Pat. App.

No. 2013/0115803) as Marvell does here. *See* Ex-2014 (Exhibit B-4 to the ITC Respondents' preliminary invalidity contentions); Pet. at 18-68 (IPR Grounds based on Cornelius+Samaan, and Cornelius+Samaan+Lugthart).

The overlap is further confirmed by Marvell's reliance on the same Cornelius disclosure here that its Customer-Respondents relied upon in the ITC Investigation. In addressing claim 1, the ITC Respondents' invalidity contentions and Marvell's IPR Ground 1 both quote the same passage (Cornelius, 11:45-62) as alleged teaching for the "fixed cable-independent equalization parameters" recited in limitation [1.e]. Compare Ex-2014, 27-29, and Pet., 43-44.

**b) Marvell Applies the Same Secondary Samaan Reference as the ITC Respondents**

Marvell's Customer-Respondents also relied upon the same Samaan reference ("High-speed Serial Bus Repeater Primer" Rev. 1.2) before the ITC that Marvell applies here in Grounds 1 and 2. *See* Ex-2015 (Exhibit B-11 to the ITC Respondents' preliminary invalidity contentions, with invalidity contentions with respect to Samaan); Pet. at 18-68 (IPR Grounds based on Cornelius+Samaan, and Cornelius+Samaan+Lugthart).

**c) Marvell Applies the Same Disclosure From a Nearly-Identical Lugthart Reference Asserted at the ITC**

Marvell's Customer-Respondents also applied U.S. Pat. No. 10,148,414 (Lugthart414; Ex-2012) in their preliminary invalidity contentions before the ITC,

which has nearly-identical disclosures to U.S. Patent No. 9,882,706 (Lugthart; Ex-1004) that Marvell applies in Grounds 2 and 3 of the Petition. *See* Ex-2017 (Exhibit B-1 to the ITC Respondents' preliminary invalidity contentions, with invalidity contentions with respect to Lugthart414); Pet. at 67-104 (IPR Grounds based on Cornelius+Samaan+Lugthart, Lugthart+Aronson).

Lugthart and Lugthart414 both claim priority to the same two provisional applications and have near-identical prior art disclosures. Almost all of their 32 figures are identical. The only ones that differ at all are Figures 3A-3C and 17B, and those figures are still nearly identical, differing only as to certain labeling.

As to their written description, a side-by-side review confirms no meaningful difference in technical substance. Marvell's Grounds 2 and 3 confirm this overlap, relying on the same disclosures cited in the ITC contentions. Indeed, for claim limitation [1.e], Marvell's Ground 3 and its Customer-Respondents' invalidity contentions both cite the same part of Figure 1A, emphasizing elements EQ 11a/11b and FFE/DFE 27a/27b. Compare Ex-2017, 15-16, and Pet. at 81.

**d) Marvell Applies the Same Disclosure From a Nearly-Identical Aronson Reference Asserted at the ITC**

Marvell's Customer-Respondents also applied U.S. Patent No. 7,762,727 (Aronson727; Ex-2013) in their preliminary invalidity contentions before the ITC. Aronson727 claims priority to and has identical disclosure as U.S. Patent

No. 7,445,389 (Aronson, Ex-1005), upon which Marvell relies here in Ground 3 of the Petition. *See* Ex-2015 (Exhibit B-11 to the ITC Respondents' preliminary invalidity contentions, with invalidity contentions with respect to Aronson727); Pet. at 69-104 (IPR Ground based on Lugthart+Aronson).

The overlap is further confirmed by Marvell's reliance here on the same prior art disclosure from Aronson that its Customer-Respondents cited in their ITC contentions. For example, in addressing limitation [1.e], Marvell's Ground 3 and the ITC Respondents' invalidity contentions both rely on Figures 12A and 12B of Aronson and Aronson727, respectively. Compare Ex-2015 at 229, and Pet. at 84.

**5. Factor 5—Petitioner Marvell Is Involved in the ITC Investigation in Support of its Customers**

Factor 5 weighs in favor of denying institution because Petitioner Marvell is involved in the ITC Investigation in support of its Customer-Respondents. Marvell has provided extensive technical discovery in the ITC Investigation regarding the Marvell DSPs that the ITC Respondents use in their accused AEC products. Marvell also successfully moved to disqualify Credo's original ITC counsel based on its client relationship with Marvell. *See* Ex-2008. As such, Marvell has demonstrated a vested and active interest in the outcome of the ITC Investigation, arguing that an adverse ruling in the ITC Investigation would directly impact Marvell's sales of DSPs to the ITC Respondents. *See* Ex-2008, 11-12. *See Docker*

*Inc. v. Intellectual Ventures II LLC*, IPR2025-00840, Pap. 9, at 2 (Sept. 19, 2025)  
(exercising discretion to deny institution of *inter partes* review where parallel proceeding involved petitioner’s customers, not petitioner itself).

**6. Factor 6—Marvell’s Arguments are Weak**

Factor 6 weighs in favor of denying institution because the merits of the Petition are weak. As Patent Owner will explain in its Preliminary Response (POPR),<sup>5</sup> the Petition fails to establish that the challenged claims would have been obvious over the various combinations of references in Grounds 1, 2, and 3. Weak merits are further demonstrated by Marvell’s over-reliance on expert testimony (*see* § 0, *infra*), which establishes a distinct basis for discretionary denial.

**B. Additional Factors Set Forth in the Stewart Memo Support Discretionary Denial**

**1. Settled Expectations and Patent Maturity Further Reinforce Discretionary Denial**

While “there is no bright-line rule on when settled expectations become settled, in general, the longer the patent has been in force, the more settled expectations should be.” *Dabico Airport Solutions Inc v. HydraFacial LLC et al.*,

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<sup>5</sup> Credo asks the Acting Director to consider the merits briefing presented in the POPR when considering *Fintiv* factor 6. *See* Ex-2014, 7 (“when filing a brief for discretionary denial, a patent owner may direct attention to an anticipated POPR.”)

IPR2025-00408, Pap. 21, at 3 (June 18, 2025). Here, Credo has invested in, relied on, and commercialized the challenged patents for half a decade—destabilizing them now undercuts the certainty that the patent system is meant to foster. The challenged patents have been enforced and licensed as part of a publicly disclosed patent portfolio. *See* Ex-2001. As noted in § II, *supra*, claimed inventions in the '252 patent protect Credo's AEC products, which are relied upon by (a) customers, including major data center operators, and (b) domestic industry partners. *See* Ex-2002; Ex-2003; Ex-2004. The claims have also been unchallenged for almost four years, indicating market acceptance and long-term reliance.

Further, Marvell has not shown why institution is justified. There is no persuasive reason the Board should now review the claims of the '252 patent. As discussed in § II, *infra*, this is not an instance where “a patent may have been in force for years but may not have been commercialized, asserted, marked, licensed, or otherwise applied in a petitioner's particular technology space, if at all.” *Zepp Health Corp v. Slyde Analytics LLC*, IPR2025-00327, Pap. 12, at 2-3 (Jun. 26, 2025). To the contrary, Credo expressly marked its rights and asserted the '252 patent to protect its innovation and investment. There is also no “significant change in law ... since the patent issued” and, thus, Marvell cannot show “how [a] change in law directly bears on the patentability of the challenged claims.” *Id.* Based on the absence of this information, the Office should be “disinclined to disturb” the

settled expectations that Credo has developed for the '252 patent. *Id.*, 3.

Finally, the '252 patent supports technology that helps decarbonize U.S. infrastructure by reducing energy consumption and enabling lower-power, lower-cost data centers (energy efficiency is a national priority). *See* Ex-1001, 1:5-22. Weakening this patent through the PTAB, as pursued by Petitioner, serves no public purpose. Credo is a U.S.-based innovator asserting its patent rights. The ITC proceeding already promotes national trade policy and patent enforcement.

**2. Marvell's Contentions for Limitation [1.e] Rely on Assumptions and Expert Testimony to Fill Gaps**

Marvell's IPR grounds rely on Cornelius or Aronson to address limitation [1.e] of claim 1. *See* Pet. at 42-49 (Grounds 1 and 2), 81-87 (Ground 3). And yet, Marvell's contentions with respect to both Cornelius and Aronson in relation to limitation [1.e] (specifically, "fixed, cable-independent, equalization parameters") reveal reliance on unfounded assumptions and expert testimony to gap-fill prior art disclosures in an effort to sidestep § 325(d). Indeed, as will be explained in the POPR, Cornelius and Aronson both fail to disclose or suggest limitation [1.e], rendering Marvell's contentions substantively defective (beyond the type of expert testimony reliance that separately warrants institution denial).

**a) Marvell's Contentions Addressing Limitation [1.e] in Grounds 1 and 2**

In Grounds 1 and 2, Marvell relies on Cornelius for alleged teaching of

“fixed, cable-independent, equalization parameters.” Pet. at 43-46. Marvell’s contentions rest on two assumptions that Cornelius does not support.

First, Marvell quotes Cornelius as describing that “parameters for these circuits may be calibrated or otherwise determined by the manufacture[r] and stored as presets for loading during operation.” Pet. at 44 (emphasis original).

Marvell *assumes* without basis that this means the parameters are “fixed at manufacturing and do not change during normal cable usage.” *Id.* Cornelius says no such thing. That the manufacturer may provide initial presets for the parameters does not mean that those parameters are “fixed.”

Second, Marvell *assumes* that Cornelius describes parameters that “do not compensate for cable paths and do not depend on the properties of the connecting cable.” Pet. at 45. Marvell cites no support from Cornelius for this assertion because there is none. Cornelius provides no such teaching.

Finally, even using these unfounded assumptions, Marvell’s interpretation of Cornelius draws from two distinct embodiments of Cornelius that Marvell describes as alternatives. Pet. at 46. In other words, Marvell describes the first embodiment as using “fixed” parameters and the second one as using “cable-independent” parameters, and Marvell offers no explanation of a motivation for combining these two different alternatives to arrive at the claimed “fixed, cable-independent, equalization parameters.”

**b) Marvell’s Contentions Addressing Limitation [1.e] in Ground 3**

In Ground 3, Marvell relies on Aronson for alleged teaching of the claimed “fixed, cable-independent, equalization parameters.” Pet. at 43-46. Marvell effectively concedes the primary reference (Lugthart) lacks express or inherent disclosure to satisfy the “cable-independent parameters” recited in the limitation [1.e]. See Pet., 82-83. Marvell is therefore forced to rely on a hypothetical configuration outside Lugthart’s disclosure. Moreover, Marvell relies not on the particular disclosure of Aronson but on the testimony of Dr. Chen, who also does not cite to any express disclosure in Aronson. See Pet. at 83-84. Instead, Dr. Chen emphasizes that Aronson describes “fixed” parameters and assumes that those parameters are therefore also cable-independent. But limitation [1.e] requires that the parameters be *both* fixed *and* cable-independent, and those two phrases must have distinct meanings. Dr. Chen’s assumption that “fixed” parameters are necessarily cable-independent is unsupported by the plain text of Aronson.

Marvell’s reliance on unfounded assumptions about the prior art disclosure and gap-filling expert testimony further support discretionary denial of the Petition.

**V. CONCLUSION**

For all of these reasons, Credo respectfully requests denial of the Petition.

IPR2025-01219  
U.S. Patent No. 11,012,252

Date: October 14, 2025

Respectfully submitted,

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## CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e)(4), I hereby certify that on October 14, 2025,  
a true and correct copy of the foregoing was served by electronic mail upon the  
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