UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

INFINERA CORPORATION,
Petitioner,

v.

ALEXANDER SOTO AND WALTER SOTO,
Patent Owners.

Case IPR2023-00838
U.S. Patent No. 10,771,181

PATENT OWNERS' SUR-REPLY TO PETITIONER'S PRELIMINARY REPLY

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Patent Owners' Exhibit List

Exhibit	Description
2001	Public file history of application 11/772,187
2002	Sheldon Walkin & Jan Conradi, *Multilevel signaling for increasing the reach of 10 Gb/s lightwave systems*, 17 J. OF LIGHTWAVE TECHNOLOGY, No. 11, 2235 (Nov. 1999)
2003	U.S. Patent Pub. No. 2007/0031153 to Aronson ("Aronson")
2004	Public file history of application 12/512,968 (Pat. 9,337,948)
2005	U.S. Patent Pub. No. 2001/0035997 to Agazzi ("Agazzi '997")
2006	Email chain between Infinera's counsel and Patent Owners' counsel regarding discovery
2007	Reserved
2008	Reserved
2009	Continued Email Chain between Infinera's counsel and Patent Owners' counsel regarding discovery (Partially Redacted)
2010	Joint Motion filed by Infinera and its co-defendants
2011	ADC Telecommunications from IDS in the file history
2012	AMP Schematic from IDS in the file history
2013	Small form-factor pluggable transceiver from IDS in the file history

The Board's Order (Paper 8) authorizes Patent Owners to file this sur-reply. Notably, despite the guidance of the Board (Paper 8 at 2–3), Petitioner has still not filed a *Sotera* stipulation with the district court.

I. *FINTIV* FACTORS 4 AND 6 WARRANT DENIAL

Petitioner's reply misses the mark. The Preliminary Response argues that *Fintiv* factors 4 and 6 warrant denial because Petitioner's *Sotera* stipulation does not extend to its real parties-in-interest ("RPI"). Thus, Petitioner's *Sotera* stipulation amounts to an "empty promise" because Petitioner can simply circumvent it through a co-defendant at trial. *Ericsson Inc. v. Godo Kaisha IP Bridge 1*, IPR 2022-00726, Paper 11 at 12–13 (PTAB Nov. 2, 2022) (addressing differences in *Sotera* and *Sand Revolution* stipulations, and "empty promise" stipulations).

Like related petitioner Nokia, Petitioner was unable to unambiguously deny the existence of documents evidencing an RPI relationship. *See* Ex. 2006 at 1 (seeking production of seven categories of RPI documents). Instead, Petitioner argues the Board should overlook this issue, and that, if considered, Petitioner should be able to hide behind its unreasonable withholding of discovery.

First, despite Petitioner's argument to the contrary, Petitioner's actions with respect to the RPI issue relate to *Fintiv* factors 4 and 6 for evaluating 1) whether Infinera's *Sotera* stipulation is an "empty promise" that can be circumvented by Petitioner's co-defendants who have asserted the same prior art at issue in the

Petition, and 2) whether Petitioner acted unreasonably in denying RPI discovery to hide the full scope of its relationship with its co-defendants. Patent Owners are not arguing for a time bar, and the Board need not affirmatively rule on whether another party is an RPI. But the Board should consider that Petitioner has gone to great lengths to avoid providing relevant RPI discovery and the fact that Petitioner may attempt to use this withheld information to circumvent its *Sotera* stipulation. Neither *Unified Patents, Inc. v. MemoryWeb, LLC*, IPR2021-01413, Paper 76 (PTAB May 22, 2023) nor *SharkNinja Operating LLC v. iRobot Corp.*, IPR2020-00734, Paper 11 (PTAB Oct. 6, 2020) address this fact pattern as it applies to the *Fintiv* analysis.

Petitioner's **second argument** demonstrates the relevance of Petitioner's refusal to provide RPI-related information. Relying on its own stonewalling, Petitioner argues that Patent Owners have offered no evidence of Petitioner's RPI relationship with its co-defendants. Of course, this is because, until recently, such information remained only in the possession of Petitioner and its co-defendants who refused to produce the requested information. Under its duty of candor, Petitioner should have been forthcoming with this information. Instead, Petitioner has repeated that it "will not entertain this inquiry" (Ex. 2006 at 1) and now seeks to rely on its refusal to create a lack of proof argument.

Moreover, it is untrue that no such evidence exists. Indeed, Petitioner confirmed that responsive documents evidencing RPI exist but Petitioner was

refusing to produce them because such a production would "encroach on applicable privileges" it does not identify. *Id*. Petitioner's co-defendant (but not Petitioner) recently produced evidence that Petitioner may have an RPI relationship with at least one of its co-defendants. Ex. 2009 at 1. But Petitioner's co-defendant who produced this document will not let Patent Owners show this evidence or reveal its contents to the Board. *Id*.[1]

The Board should find that Petitioner's actions were designed to hide an RPI relationship so that Petitioner could circumvent its empty-promise *Sotera* stipulation. *Fintiv* factors 4 and 6 favor denial in view of this misconduct.

II. PETITIONER'S SUMMARY OF THE FILE HISTORY IS WRONG

Petitioner's reply argues that the Board maintained rejections of claims 18 and 19 of application 12/512,968, but this is not an accurate description of the full record. Paper 9 at 4–5.

First, rejected claim 18 is different from the claims at issue because it did not require a "pluggable" form factor at all. Ex. 2004 at 92–93. It has no relevance here.

[1] Petitioner denies the relationship/obligations described in this letter but continues to withhold related documents, preventing NextGen from investigating further.

With respect to dependent claim 19, the Board affirmed Examiner Bello's rejection of "pluggable" claim 19 because the inventors made their arguments "without citation to any evidence in the record." *Id.* at 28–29.

In response, the inventors directly addressed this lack of evidence and changed Examiner Bello's mind. During the subsequent prosecution of application 15/095,137 (issued as Patent 9,887,795), the inventors provided the evidence that these types of proposed electrical reference plus form factor reference combinations were impossible. Ex. 1004 at 69–70 (arguing based on evidence); 80 (submitting evidence in IDS); Exs. 2011–2013 (copies of the evidence). After fully considering this previously missing evidence, Examiner Bello changed his mind about electrical reference plus form factor reference combinations and allowed the claims of the '795 Patent. Ex. 1004 at 56. Examiner Bello later allowed the '723 and '181 Patents.

In summary, the rejection relied on by Petitioner was made for a technical reason (lack of cited evidence) that the inventors were able to correct in subsequent prosecutions. The new evidence caused Examiner Bello to withdraw his rejection. When the prosecution history is considered in its full context (as opposed to ignoring unfavorable aspects as argued by Petitioner), the type of combination proposed by Petitioner was fully considered. Petitioner does not discuss the evidence and arguments in Ex. 1004 at 69–70 because Petitioner cannot rebut them.

III. SECTION 325(D) MERITS DENIAL OF INSTITUTION

Although Petitioner argues that it did more than simply swap the designation of primary and secondary references, Petitioner still fails to show that the PTO has not already considered the same combination Petitioner now asserts. Petitioner failed to identify any unique reason for combining Vrazel with Pang.

First, Petitioner argues that Pang specifically discloses how to stack PCBs to reduce their footprint. Paper 9 at 6. But the Petition never identifies which PCBs of Vrazel (if any) could be stacked according to this technique to achieve any benefit. Indeed, the Petition does not argue that Vrazel discloses the use of PCBs at all, instead arguing that Vrazel's electronics were "integrated into one circuit or multichip module." Petition at 19, 20. The Petition does not argue how Pang's stacking PCBs has any applicability to Vrazel's integrated circuit. This does not rebut or overcome the evidence considered by Examiner Bello. Ex. 1004 at 69–70 (citing to evidence).

Moreover, a recent litigation argument made by Petitioner also contradicts the arguments in the Petition. For example, Petitioner argued that the "claim requirement of a 'pluggable' form was key to granting of the M-ary patents," that "a key part" of practicing the invention required "miniaturizing the 'analog-to-digital converter'" (not stacking PCBs), and that without the teachings of the challenged patent, "[n]obody knew if we could miniaturize the ADC that could provide that

kind of performance and power efficiency." Ex. 2010 at 10. Petitioner's own litigation arguments therefore contradict the argument in the Petition that the invention is claimed by simply using stacked PCBs.

Second, Petitioner argues that Vrazel finally provided a teaching that would "add little or no complexity" to the **optical** components, such as the lens and optical cable. But again, the complexity of the lens and optical cable is a red herring in the Section 325(d) analysis. The inventors argued that other aspects prevented the combination, and Petitioner has recently made a similar argument. Ex. 1004 at 69–70; Ex. 2010 at 10 (arguing difficulties in miniaturizing the ADC is relevant to the claims).

Finally, Petitioner faults Patent Owners for not providing expert testimony. But none was needed at this stage because Patent Owners' Preliminary Response explains why, even if all of Petitioner's evidence is taken as true, the Petition is unlikely to succeed on the merits. For example, the Petition incorrectly argued that Vrazel disclosed the use of an encoder as performing the claimed modulator limitations. The Preliminary Response explained why this was wrong because Petitioner and its expert[2] argued that encoding and modulation are distinct and

[2] Petitioner's expert declaration appears to be little more than a copy-pasted and slightly tweaked version of the Petition that deserves little, if any, weight.

different techniques. Moreover, no math expert is needed to explain how Vrazel's 4-bit-to-4-bit encoder fails to meet the other limitations of the claims, such as "increasing the number of bits." Accordingly, even if Petitioner's evidence is taken as true, the Preliminary Response demonstrates a lack of likelihood of success. No expert evidence was necessary.[3]

In summary, Petitioner has failed to directly address the evidence that Examiner Bello specifically considered. Petitioner's Reply arguments do not contradict the fact that all Petitioner has done is provide yet another pair of references showing the long-established, old way of doing things: basic pluggable modules separate from larger, complex electrical systems.

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[3] The Preliminary Response assumes the evidence cited by Petitioner to be true. 35 U.S.C. § 42.108(c); *Microsoft Corp. v. Bradium Techs. LLC*, IPR2016-01897, Paper 17 at 26 (PTAB April 4, 2017). To be clear, Patent Owners have never agreed with Petitioner's argument drawing black letter distinctions between modulation and encoding, particularly the claimed modulation. At this stage, however, the Board is obligated to take Petitioner's factual arguments as true. If instituted, Patent Owners will provide affirmative evidence demonstrating that Petitioner's conclusory arguments are unsupportable.

Respectfully submitted,

Dated: October 27, 2023

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CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME LIMITS

This Patent Owners' Sur-Reply to Petitioner's Reply to Patent Owners' Preliminary Response is 7 pages or less, excluding table of contents, table of authorities, certificate of service, signature block, this certificate, or table, which is in compliance with Paper 8.

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CERTIFICATE OF SERVICE (37 C.F.R. § 42.6(e)(1))

The undersigned hereby certifies that the above document was served on October 27, 2023, by filing this document through the P-TACTS system as well as delivering a copy via electronic mail upon the following attorneys of record for the Petitioner:

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