

UNITED STATES INTERNATIONAL TRADE COMMISSION

Washington, D.C.

In the Matter of

**CERTAIN PHOTOVOLTAIC
CONNECTORS AND COMPONENTS
THEREOF**

Inv. No. 337-TA-1365

FINAL INITIAL DETERMINATION ON VIOLATION OF SECTION 337

Administrative Law Judge Monica Bhattacharyya

(August 30, 2024)

Appearances:

For Complainant Shoals Technologies Group, LLC:

Charles S. Barquist of Maschoff Brennan in Los Angeles, CA; Kirk R. Harris, Eric L. Maschoff, and R. Parrish Freeman of Maschoff Brennan in Park City, UT; L. Rex Sears and Jacob O. Israelsen of Maschoff Brennan in Salt Lake City, UT; Christina L. Trinh of Maschoff Brennan in Irvine, CA; and Daniel E. Yonan, Uma Everett, and Josephine Kim of Sterne, Kessler, Goldstein & Fox, P.L.L.C. in Washington, DC.

For Respondents Voltage, LLC and Ningbo Voltage Smart Production Co.:

Yar Chaikovsky, Philip Ou, Bruce Yen, Yolanda Xu, and Sojung Yun of White & Case LLP in Palo Alto, CA; and Jordan Coyle of White & Case LLP in Washington, DC.

For the Office of Unfair Import Investigations:

John Shin and David Lloyd of the U.S. International Trade Commission in Washington, DC.

g. Claim 24

With respect to claim 24, Voltage relies upon its analysis for claim 21. *See* Tr. (Kenny) at 1216:23-1217:8; RIB at 127-28. Claim 24, like claim 21, includes limitations requiring three apertures, and requiring the second and third apertures to have a smaller diameter than the first aperture. For at least the reasons discussed with respect to the aperture limitations of claim 1, the evidence fails to clearly and convincingly show a reason to combine Yamawaki and Shao to obtain these limitations.

4. Secondary Considerations of Non-Obviousness

Shoals contends that secondary considerations of non-obviousness support a finding of non-obviousness. *See* CIB at 125-132. In particular, Shoals contends that evidence of long-felt but unmet need (CIB at 125-27), industry skepticism (*id.* at 127), industry praise (*id.* at 127-28), commercial success (*id.* at 128-131), as well as evidence regarding nexus (*id.* at 131-132) support Shoals' position. Staff contends that, to the extent "Shoals' BLA products practice any claim of the '153 Patent, at least the secondary indicia of commercial success should weigh in Shoals' favor toward a finding of non-obviousness." SIB at 63-64; *see also* SRB at 36.

Voltage's post-hearing briefs provide no rebuttal to Shoals' contentions or evidence regarding secondary considerations.

As discussed *supra*, the undersigned finds that Shoals' BLA products practice claims 1 and 21 of the '153 patent.¹⁴⁰ The undersigned also finds that Shoals has presented strong *prima facie* evidence of secondary considerations of non-obviousness (including, in particular, industry skepticism, industry praise, and commercial success) linked to the BLA products and their

¹⁴⁰ An exception relates to BLA products that include only mold drops with one drop line. However, as discussed in connection with the economic prong, this does not appear to be a large proportion of Shoals' business.

implementation by customers, which Voltage has not rebutted. *See* CIB at 127-131 and evidence cited therein. The evidence shows that Shoals' BLA product has achieved significant success in the industry and has been viewed as providing significant contributions to the market solutions available. *See, e.g.*, CX-0256 at 7219 (PV Magazine award to Shoals BLA product "thanks to its proven potential for speeding up installation times and bringing down component costs by eliminating combiner boxes and simplifying this aspect of installation"); JX-0128C (GRAPH study); Tr. (Macias) at 130:14-131:2 and JX-0114 at 22 (SHOALS00005950) (Shoals Investor Presentation); Tr. (Voltage opening statement) at 78:6-8 (not doubting that "Shoals has done great things for the solar industry"); CIB at 127-129. As noted *supra*, Voltage does not address secondary considerations at all.

Further, with respect to claim 1, the undersigned finds there is a presumption of nexus because the record indicates that the BLA products are coextensive with the claims. *See Fox Factory, Inc. v. SRAM, LLC*, 944 F.3d 1366, 1373 (Fed. Cir. 2019) ("a patentee is entitled to a rebuttable presumption of nexus . . . if the patentee shows that the asserted evidence is tied to a specific product and that the product *is* the invention disclosed and claimed") (internal quotation omitted); *id.* ("That is, presuming nexus is appropriate when the patentee shows that the asserted objective evidence is tied to a specific product and that the product embodies the claimed features, and is coextensive with them"); CIB at 131 (arguing presumption of nexus). Voltage provided no rebuttal argument regarding nexus.

Claim 21 claims a solar power system comprising *inter alia* a "plurality of solar panels." Since the BLA products do not include solar panels, these products are not coextensive with the claims. *See Fox Factory*, 944 F.3d at 1373 (finding "coextensiveness" required to presume a nexus). The evidence does indicate, however, that Shoals' customers practice claim 21, and thus

a presumption of nexus would apply for industry praise and industry skepticism made in relation to the implementation of Shoals' products. *See* JX-0345C. Further, while a presumption of nexus does not apply for Shoals' commercial success, there is evidence of nexus between the commercial success of the Shoals' BLA products and the patent at issue. *See* CIB at 131-32; JX-0128C at 80 (indicating that a [REDACTED] [REDACTED]); '153 patent at 1:44-60 (noting issues with "known power installations" with combiner boxes which "which are "clumsy . . . must be periodically maintained, and require extensive planning and skill for installation" and the need for a device that is "easy to use").¹⁴¹

Based on the evidence of record, and Voltage's lack of any argument on this issue, the evidence of secondary considerations weighs significantly against a finding of obviousness with respect to the claims at issue. *See, e.g., WBIP, LLC v. Kohler Co.*, 829 F.3d 1317, 1328 (Fed. Cir. 2016) ("The objective indicia of non-obviousness play an important role as a guard against the statutorily proscribed hindsight reasoning in the obviousness analysis. Indeed, we have held that evidence of secondary considerations may often be the most probative and cogent evidence in the record.").

¹⁴¹ While Shoals did not assert claim 24 to support a domestic industry, Voltage's invalidity analysis assumes that a product practicing claim 21 would also practice claim 24, thus indicating that the secondary considerations of obviousness would apply to claim 24 as well. And even if secondary considerations did not apply with respect to claim 24, the evidence fails to clearly and convincingly show obviousness based on the lack of sufficient evidence and expert testimony as discussed in prior sections.

B. Indefiniteness

As discussed above in Part V.E, the evidence does not show that the asserted claims of the '153 are indefinite.

C. Lack of Written Description/Enablement

Voltage's written description arguments essentially mirror its indefiniteness arguments. *See* RIB at 128-139. Moreover, Voltage's argument that "there is little to support . . . a written description of the claimed apertures, apart from the figures" (RIB at 128) fails to take into account the patent figures. *See Cooper Cameron Corp. v. Kvaerner Oilfield Prods., Inc.*, 291 F.3d 1317, 1322 (Fed. Cir. 2002) (drawings can "constitute an adequate description"). Moreover, the specification describes the creation of an assembly that applies an undermold and overmold to a joint that includes a drop line and feeder cable. *See* '153 patent at 5:60-6:13; Fig. 7. Staff refers to an alleged lack of enablement but provides no explanation or argument. *See* SIB at 65. The evidence fails to clearly and convincingly show invalidity based on lack of written description or lack of enablement.

X. CONCLUSIONS OF LAW

Based on the foregoing, and the record, it is the undersigned's final initial determination that there has been a violation of section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337, in the importation into the United States, the sale for importation, and/or the sale within the United States after importation of certain photovoltaic connectors and components thereof by reason of infringement of claims 1, 11-14, and 18 of U.S. Patent No. 11,689,153.

This determination is based on the following conclusions of law:

1. The Voltage Trunk Bus and Voltage AD Trunk Bus have been imported into the United States, sold for importation, and/or sold within the United States after importation.

2. Claims 1, 11-14, and 18 of the '153 patent are infringed by the Voltage Trunk Bus. Claims 21, 23, and 24 are not infringed by the Voltage Trunk Bus.
3. Claims 1, 11-14, 18, 21, 23, and 24 of the '153 patent are not infringed by the Voltage AD Trunk Bus.
4. The technical prong of the domestic industry requirement has been met for the '153 patent.
5. The economic prong of the domestic industry requirement has been satisfied for the '153 patent.
6. Claims 1, 11-14, 18, 21, 23, and 24 of the '153 patent have not been shown to be invalid.

The undersigned hereby certifies the record in this investigation to the Commission with the undersigned's final initial determination. Pursuant to Commission Rule 210.38, the record further comprises the complaint and exhibits thereto, and the exhibits attached to the parties' summary determination motions and the responses thereto. 19 C.F.R. § 210.38(a).

Pursuant to Commission Rule 210.42(h)(2), this initial determination shall become the determination of the Commission 60 days after the service thereof, unless a party files a petition for review pursuant to Commission Rule 210.43(a), the Commission orders its own review pursuant to Commission Rule 210.44. 19 C.F.R. § 210.42(h)(2).

This initial determination is being issued with a confidential designation pursuant to Commission Rule 210.5 and the protective order in this investigation. Within 10 days of the date of this document, the parties shall submit a joint statement as to whether or not they seek to have any portion of this document deleted from the public version. If the parties do seek to have portions of this document deleted from the public version, they must submit a single proposed public version of this final initial determination with any proposed redactions consistent with the