



INTERNATIONAL TRADE COMMISSION

[Investigation No. 337-TA-1365]

Certain Photovoltaic Connectors and Components Thereof; Notice of a Commission Final Determination Finding no Violation of Section 337; Termination of the Investigation

AGENCY: U.S. International Trade Commission.

ACTION: Notice.

SUMMARY: Notice is hereby given that the U.S. International Trade Commission (“Commission”) has determined to reverse in part a final initial determination (“FID”) issued by the presiding administrative law judge (“ALJ”) finding a violation of section 337 of the Tariff Act of 1930, as amended. The investigation is terminated with a finding of no violation.

FOR FURTHER INFORMATION CONTACT: Paul Lall, Office of the General Counsel, U.S. International Trade Commission, 500 E Street, S.W., Washington, D.C. 20436, telephone (202) 205-2043. Copies of non-confidential documents filed in connection with this investigation may be viewed on the Commission’s electronic docket (EDIS) at <https://edis.usitc.gov>. For help accessing EDIS, please email EDIS3Help@usitc.gov. General information concerning the Commission may also be obtained by accessing its Internet server at <https://www.usitc.gov>. Hearing-impaired persons are advised that information on this matter can be obtained by contacting the Commission’s TDD terminal, telephone (202) 205-1810.

SUPPLEMENTARY INFORMATION: On June 9, 2023, the Commission instituted this investigation based on a complaint filed on behalf of Shoals Technologies Group, LLC (“Shoals Technologies”) of Portland, Tennessee. 88 FR 37905-06 (June 9, 2023). The complaint alleges violations of section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. 1337 (“section 337”), based upon the importation into the United States, the sale for importation, or sale within the United States after importation of certain photovoltaic connectors and components thereof by reason of infringement of certain claims of U.S. Patent Nos. 10,553,739 (“the ’739 patent”) and 10,992,254 (“the ’254 patent”). The Commission’s notice of investigation (“NOI”) named the

following eight respondents: 1) Hikam America, Inc. of Chula Vista, California; 2) Hikam Electrónica de México, S.A. de C.V. of Mexicali, Mexico; 3) Hikam Tecnologia de Sinaloa of Guasave, Mexico; 4) Hewtech Philippines Corp. of Laguna, Philippines; 5) Hewtech Philippines Electronics Corp. of Pampanga, Philippines; 6) Hewtech (Shenzhen) Electronics Co., Ltd. of Shenzhen, China (collectively the “Hikam Respondents”); 7) Voltage, LLC (“Voltage”) of Chapel Hill, North Carolina; and 8) Ningbo Voltage Smart Production Co. (“Ningbo Voltage”) of Ningbo, China (collectively “Respondents”). *Id.* The Office of Unfair Import Investigations (“OUII”) was also named as a party in this investigation. *Id.* at 37906.

On August 15, 2023, the Commission amended the complaint and NOI to add allegations of infringement against Voltage related to certain claims of U.S. Patent No. 11,689,153 (“the ’153 patent”). *See* Order No. 5 (Jul. 18, 2023), *unreviewed by* Comm’n Notice, 88 FR 56882-83 (Aug. 21, 2023).

The presiding ALJ held a *Markman* hearing on December 13, 2023, and on February 20, 2024, issued an order addressing claim construction for the ’739, ’254, and ’153 patents. *See* Order No. 16 (Feb. 20, 2024) (“*Markman* Order”). On February 28, 2024, Shoals filed a motion for reconsideration of the *Markman* Order’s construction of the term “engaged with” in claims 1 and 10 of the ’739 patent. On March 4 and 5, 2024, Respondents and OUII filed oppositions to the motion, respectively.

On March 11, 2024, the Commission terminated the following claims from the investigation based on Shoals’ withdrawal of the complaint as to those claims: claims 2, 3, 6, 8, 9, 11, 12, and 15-18 of the ’739 patent, claims 2-4, 8-12, 14, and 15 of the ’254 patent, and claims 2, 3, 6, and 15-17 of the ’153 patent. *See* Order No. 15 (Feb. 9, 2024), *unreviewed by* Comm’n Notice (March 11, 2024).

On March 25, 2024, the Commission terminated the ’254 patent from this investigation based on Shoals’ withdrawal of the complaint as to that patent. *See* Order No. 19 (Feb. 28,

2024), *unreviewed by* Comm'n Notice (March 26, 2024).

On April 19, 2024, the Commission determined not to review the ALJ's grant of summary determination that Shoals has not satisfied the technical prong of the domestic industry requirement for the '739 Patent and, thus, found no violation as to the '739 patent. Order No. 20 (March 6, 2024), *unreviewed by* Comm'n Notice (Apr. 19, 2024). In Order No. 20, the ALJ also denied Shoals' motion for reconsideration of the *Markman* Order. *Id.* Only the '739 patent was asserted against the Hikam Respondents. *See* Comm'n Notice (Apr. 19, 2024); Am. Compl. at ¶ 66. Accordingly, the Hikam Respondents were effectively terminated from the investigation as of the termination of the '739 patent. On June 18, 2024, Shoals filed a notice of appeal with the U.S. Court of Appeals for the Federal Circuit appealing the Commission's finding of no violation as to the '739 patent. *See* Case No. 24-1991, Notice of Docketing (Fed. Cir. June 24, 2024). On December 18, 2024, the Federal Circuit issued an order dismissing the appeal based on a joint stipulation of voluntary dismissal. *See* Case No. 24-1991, Order (Fed. Cir. Dec. 18, 2024).

On April 26, 2024, the Commission terminated the investigation with respect to asserted claim 8 of the '153 patent based on Shoals' withdrawal of the complaint as to that claim. *See* Order No. 29 (April 2, 2024), *unreviewed by* Comm'n Notice (Apr. 26, 2024).

The ALJ held an evidentiary hearing on March 18-22, 2024. As of the hearing, Shoals asserted claims 1, 11-14, 18, 21, 23, and 24 of the '153 patent against the accused Voltage Trunk Bus, and Voltage sought adjudication of the Voltage Alternative Design ["AD"] Trunk Bus with respect to and claims 21 and 24 of the '153 patent. Shoals also asserted that its DI product practices claims 1 and 21 of the '153 patent for purposes of the DI requirement.

On August 30, 2024, the presiding ALJ issued the FID, finding that there has been a violation of section 337 in the importation into the United States, the sale for importation, and/or the sale in the United States after importation of certain photovoltaic connectors and components thereof with respect to certain claims of the '153 patent. Specifically, the FID finds as to the '153 patent that: 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) the Voltage Trunk Bus satisfies claims 1, 11-14, and 18; 3) the Voltage Trunk Bus does not satisfy claims 21, 23, and 24; 4) the Voltage AD Trunk Bus does not satisfy claims 1, 11-14, 18, 21, 23, and 24; 5) Shoals has satisfied the technical prong of the DI requirement; 6) Shoals has satisfied the economic prong of the DI requirement; and 7) Voltage has not shown that claims 1, 11-14, 18, 21, 23, and 24 are invalid under 35 U.S.C. § 112 for lack of written description and/or indefiniteness.

On September 13, 2024, the presiding ALJ issued a Recommended Determination on Remedy and Bonding (“RD”). The RD recommends that the Commission issue a limited exclusion order against Voltage in the event it finds a violation of section 337 and impose a bond of 100 percent during the period of Presidential Review.

On October 15 and 16, 2024, Shoals Technologies and Voltage, respectively, filed a statement on the public interest pursuant to Commission Rule 210.50(a)(4), 19 CFR 210.50(a)(4). On October 15, 2024, Strata Clean Energy of Durham, N.C. filed a statement on the public interest in response to the Commission’s *Federal Register* notice. *See* 89 FR 76869-70 (Sept. 19, 2024).

On September 16, 2024, Shoals filed a petition for review of the FID, arguing that the ALJ should not have considered respondents’ redesign product, the Voltage AD Trunk Bus, as being within the scope of the investigation. On the same day, Respondents also filed a petition for review of the following of the FID’s findings: (1) the FID’s construction of the term “aperture” recited in the asserted claims of the ’153 patent; (2) the FID’s finding that the asserted claims of the ’153 patent are not invalid under 35 U.S.C. § 112 for lack of written description and/or indefiniteness; (3) the FID’s finding that Shoals has satisfied the domestic industry requirement with respect to an article protected by the ’153 patent; and (4) the FID’s determination to exclude the testimony of Voltage’s invalidity expert. Also on the same day, OUII filed a petition for review of the following of the FID’s findings: (1) the FID’s

construction of the “aperture” terms; (2) the FID’s finding that Shoals’ has satisfied the technical prong of the domestic industry requirement; and (3) the FID’s determination to exclude the testimony of Voltage’s invalidity expert.

On September 24, 2024, Shoals, Voltage and OUII each filed responses to the respective petitions for review.

On October 4, 2024, Voltage filed a notice of supplemental authority, and on October 7, 2024, Shoals filed a response to the notice. The Voltage Notice attached a copy of a September 30, 2024 decision from the U.S. Patent and Trademark Office’s Patent Trial and Appeal Board denying a petition by Voltage to institute post-grant review proceedings. *See* Voltage Notice, Ex. A (*Voltage v. Shoals*, PGR2024-00022).

On November 13, 2024, the Commission determined to review the FID in part. *See* 89 FR 91424-27 (Nov. 19, 2024) (the “November 13, 2024 Commission Notice”). Specifically, the Commission reviewed the FID’s: (1) construction of the “aperture” terms recited in the asserted claims of the ’153 Patent; (2) finding that the accused products infringe the asserted claims of the ’153 patent; (3) finding that the asserted claims of the ’153 patent are not invalid under 35 U.S.C. § 112 for lack of written description and/or indefiniteness; and (4) finding that Shoals has satisfied the domestic industry requirement of section 337, including the FID’s findings concerning the technical prong and the economic prong. *Id.* at 91426. The Commission did not review the remaining findings in the FID.

In connection with its review, the Commission requested responses from the parties to certain question concerning the issues under review. *Id.* at 91426. The Commission also requested parties to the investigation, interested government agencies, and any other interested parties to file written submissions on the issues of remedy, the public interest, and bonding. *Id.*

On November 27, 2024, Shoals, Voltage and OUII each filed a response to the Commission’s November 13, 2024 notice. On December 5, 2024, Shoals, Voltage and OUII each filed a respective reply.

Having reviewed the record of the investigation, including the FID, the parties' petitions for review and related submissions, and the parties' responses to the Commission's November 13, 2024 Notice, the Commission has determined to: (1) construe the "aperture" terms recited in the asserted claims of the '153 Patent such that the entire "drop line" recited in the claims means "the entire length of the underlying 'drop line/wire' within the undermold (and compression lug), just as the 'feeder cable' equates to the entire length of the underlying cable within the undermold (and compression lug)"; (2) reverse the FID's finding that the accused Voltage Trunk Bus satisfies claims 1, 11-14, and 18 of the '153 patent; and (3) reverse the FID's finding that Shoals' asserted domestic industry products satisfy the limitations of claims 1 and 21 of the '153 patent. The Commission takes no position on the other issues under review. Concurrent with this notice, the Commission has issued an opinion further explaining its determination.

The investigation is terminated with a finding of no violation of section 337.

The Commission's vote on this determination took place on January 14, 2025.

The authority for the Commission's determination is contained in section 337 of the Tariff Act of 1930, as amended (19 U.S.C. 1337), and in part 210 of the Commission's Rules of Practice and Procedure (19 CFR part 210).

By order of the Commission.

Issued: January 14, 2025.

Lisa Barton,

Secretary to the Commission.

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