

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

CREDO SEMICONDUCTOR INC. and CREDO
TECHNOLOGY GROUP LTD.,

Plaintiffs,

v.

VOLEX PLC,

Defendant.

Civil Action No. 2:25-cv-00298-JRG

JURY TRIAL DEMANDED

AMENDED COMPLAINT FOR PATENT INFRINGEMENT

Plaintiffs Credo Semiconductor Inc. and Credo Technology Group Ltd. (collectively, “Credo” or “Plaintiffs”), by and through their attorneys, bring this Amended Complaint for patent infringement and demand for jury trial against Defendant Volex PLC (“Volex” or “Defendant”) and allege as follows:

OVERVIEW

1. This is a patent infringement action brought by Credo arising out of Volex’s infringement of U.S. Patent Nos. 10,877,233 (“the ’233 patent”), 11,012,252 (“the ’252 patent”), and 11,032,111 (“the ’111 patent”) (collectively, “the Asserted Patents”). Credo owns the entire right, title, and interest in each of the Asserted Patents, which arose out of Credo’s groundbreaking work in the field of Ethernet cables referred to as active electrical cable (“AEC”) technology. Credo brings this lawsuit to address Volex’s ongoing infringement of the Asserted Patents.

NATURE OF THE ACTION

2. This action for patent infringement arises under the laws of the United States, Title 35 of the United States Code, 35 U.S.C. § 1 et seq.

THE PARTIES

3. Credo Semiconductor Inc. is a corporation organized and existing under the laws of the State of California and having a principal place of business at 110 Rio Robles, San Jose, California 95134. Credo Semiconductor Inc. is a subsidiary of Credo Technology Group Ltd. Founded in 2008 by a seasoned team of analog, digital, and mixed-signal experts as a fabless semiconductor company, Credo develops, creates, and delivers to U.S. consumers innovative AECs that allow for more efficient and cost-effective data transmission.

4. Credo Technology Group Ltd. is a corporation organized and existing under the laws of the Cayman Islands and having a principal place of business at Ugland House, Grand Cayman, Cayman Islands KY1-1104.

5. On information and belief, Volex PLC is a public limited company organized under the laws of the United Kingdom, having its principal place of business at Unit C1 Antura, Bond Close, Basingstoke, RG24 8PZ Hampshire, United Kingdom.

JURISDICTION AND VENUE

6. This is a civil action for patent infringement arising under the patent laws of the United States, Title 35 of the United States Code. Subject matter jurisdiction over the asserted causes of actions before this Court is, therefore, proper and founded upon 28 U.S.C. §§ 1331 and 1338.

7. This Court has personal jurisdiction over Volex because, among other things, Volex, on information and belief, has regularly and systematically transacted business in Texas, including in this District, directly or indirectly through subsidiaries, distributors, sales partners and/or intermediaries, and/or committed acts of patent infringement in Texas, including in this District. For example, Volex contracts with distributors that are located in Texas and/or sell

Volex's products, including infringing devices, in Texas. For example, Volex distributors include Allied Electronics (now RS Group plc), Mouser Electronics, Inc., Anixter Inc., and Heilind Electronics Inc. *See* Volex Authorised Distributors, <https://www.volex.com/volex-authorized-distributors/> (last visited Mar. 6, 2025). Allied Electronics and Mouser Electronics, Inc. are located in Texas. In addition, Anixter Inc. and Heilind Electronics Inc. have sales branches throughout Texas.

8. Volex has also infringed and caused infringement of the Asserted Patents in Texas and within this District through a nationwide channel of distribution in the United States. Moreover, upon information and belief, Volex has purposefully and voluntarily placed infringing devices in the stream of commerce with the knowledge and expectation that the same will end up in, and be marketed, sold, and purchased in, Texas and within this District. For example, upon information and belief, Volex manufactures infringing devices specifically for import and sale in the United States, including this District. For example, Volex contracts with its subsidiaries, distributors, sales partners and/or intermediaries to import and sell infringing devices to datacenters and other customers across the country, including this District. For example, as indicated above, Volex contracts with distributors that are located in Texas and/or sell Volex's products, including infringing devices, in Texas.

9. Venue is proper in this District for Volex pursuant to 28 U.S.C. § 1391(c)(3) because it is not a resident in the United States, and, therefore, may be sued in any judicial district.

FACTUAL BACKGROUND

10. Since its founding in 2008, Credo has developed, created, and delivered to U.S. consumers a variety of high-speed wired connectivity solutions in the data infrastructure market, including its series of distinctive purple HiWire™ Active Electrical Cables ("AECs"). *See*

generally Our Company, <https://credosemi.com/company/> (last visited Mar. 6, 2025); HiWire Active Electrical Cables, <https://credosemi.com/products/hiwire-aec/> (last visited Mar. 6, 2025). Given its focus on innovative wired connectivity solutions, Credo has built a portfolio of patent rights covering wired data connectivity and related technologies. *See, e.g.*, Businesswire, Credo Introduces 800G HiWire ZeroFlap AECs to Support AI Backend Networks, <https://www.businesswire.com/news/home/20241010046982/en/> (last visited Mar. 6, 2025) (noting “[c]redo products are based on our proprietary Serializer/Deserializer (SerDes) and Digital Signal Processor (DSP) technologies,” and “[o]ur intellectual property (IP) solutions consist primarily of SerDes IP licensing.”).

11. Credo has a history of innovation and pioneering new technologies, allowing Credo to deliver best-in-class products and IP solutions, as evidenced by recently winning the Global Semiconductor Alliance’s “Most Respected Emerging Public Semiconductor Company” Award. *See* Our Company, <https://credosemi.com/company/> (last visited Mar. 6, 2025); Credo Wins GSA’s “Most Respected Emerging Public Semiconductor Company” Award, <https://credosemi.com/credo-wins-gsas-most-respected-emerging-public-semiconductor-company-award/> (last visited Mar. 6, 2025). This award “honors semiconductor companies that demonstrate excellence in innovation, execution, and industry impact,” and “highlights Credo’s innovative contributions in delivering high-speed, energy-efficient connectivity solutions....” *Id.*

12. Credo’s patented innovations enable the U.S. data infrastructure to meet the ever-growing need to transfer high volumes of data. Recently, new cloud workloads, increased video streaming, 5G wireless deployment, and the growing adoption of AI have created an explosion of data which is a challenge to handle efficiently using existing data infrastructure. *See* Our Company, <https://credosemi.com/company/> (last visited Mar. 6, 2025). To meet this new demand

for the transmission of vast amounts of data at increasingly higher speeds, Credo has developed its patented HiWire AEC technology.

THE ASSERTED PATENTS

13. Credo is the owner by assignment of all right, title, and interest in and to United States Patent No. 10,877,233. The '233 patent is titled "Active Ethernet Cable with Preset Pre-Equalization" and lists Yifei Dai, Yattung Lam, and Rajan Pai as inventors. The U.S. Patent & Trademark Office issued the '233 patent on December 29, 2020. A copy of the '233 patent is attached hereto as Exhibit 1.

14. Credo is the owner by assignment of all right, title, and interest in and to United States Patent No. 11,012,252. The '252 patent is titled "Active Ethernet Cable" and lists Yattung Lam and Baohua Chen as inventors. The U.S. Patent & Trademark Office issued the '252 patent on May 18, 2021. A copy of the '252 patent is attached hereto as Exhibit 2.

15. Credo is the owner by assignment of all right, title, and interest in and to United States Patent No. 11,032,111. The '111 patent is titled "SerDes Pre-Equalizer Having Adaptable Preset Coefficient Registers" and lists Junqing Sun and Haoli Qian as inventors. The U.S. Patent & Trademark Office issued the '111 patent on June 8, 2021. A copy of the '111 patent is attached hereto as Exhibit 3.

COUNT I

Infringement of U.S. Patent No. 10,877,233

16. Credo repeats and re-alleges the allegations in the Paragraphs above as though fully set forth in their entirety. Volex has infringed and continues to infringe, either literally or under the doctrine of equivalents, at least claim 1 of the '233 patent, under 35 U.S.C. § 271(a) and (g), by making, using, offering for sale or selling within the United States, or importing into the

United States active electrical cables, including but not limited to, its 400G QSFP-DD AEC Cable, 400G QSFP112 AEC Cable, 800G QSFP-DD AEC Cable, 800G QSFP-DD to QSFP112 AEC Breakout Cable, 800G OSFP AEC Cable, and 800G OSFP to QSFP112 AEC Breakout Cable (collectively, the “Accused Products”). A claim chart demonstrating how the Accused Products infringe exemplary claim 1 of the ’233 patent is attached hereto as Exhibit 4.

17. Volex has had knowledge of the ’233 patent and has acted and is continuing to act despite an objectively high likelihood that its actions constitute direct and/or indirect infringement of a valid patent and knew or should have known of that objectively high risk since before the filing of this action. For example, Volex has had knowledge of the ’233 patent at least as early as September 1, 2023. By way of a letter to Volex dated September 1, 2023, Credo identified its patent portfolio regarding AEC technology, including the ’233 patent. Volex additionally has knowledge of the ’233 patent via the filing of this Complaint.

18. Volex has actively induced and continues to induce the infringement by others, including its distributors and customers, of the ’233 patent under 35 U.S.C. § 271(b) by, among other things, manufacturing, selling, offering for sale within the United States and/or importing into the United States the Accused Products and providing materials and instructions for operation of the same, with the specific intent and knowledge that the materials and instructions direct, teach, or assist others to infringe the ’233 patent by using the Accused Products. For example, Volex actively induces others, such as its distributors and customers, who are not licensed by Credo, to use and purchase the Accused Products in the United States such that others directly infringe the ’233 patent. For example, Volex provides materials and instructions to its distributors and customers on operation of the Accused Products, demonstrates and uses the Accused Products at trade shows, and offers customer support for its Accused Products, with the specific intent and

knowledge that these materials and instructions direct, teach, or assist others in infringing the '233 patent. *See* Volex Brochure, <https://www.volex.com/wp-content/uploads/2024/01/Volex-High-Speed-Copper-Interconnect-Solutions-Brochure.pdf> (listing Accused Products for sale and offering customer support); Volex's AEC Chip Partner's Article, <https://www.prnewswire.com/news-releases/spectra7-and-volex-announce-successful-demonstration-of-industry-leading-performance-for-800g-active-copper-interconnects-302054357.html> (noting demos of Accused Product were successful at DesignCon 2024 trade show in Santa Clara, California). Other active steps by Volex include, but are not limited to, encouraging, advertising (including by internet websites), promoting, and instructing others to use and/or how to use the Accused Products.

19. Volex has contributed and continues to contribute to the infringement by others, including its distributors and customers, of the '233 patent under 35 U.S.C. § 271(c) by, among other things, manufacturing, selling, offering for sale within the United States and/or importing into the United States the Accused Products for use in practicing the patented inventions of the '233 patent, knowing that the Accused Products and components are especially made or adapted for use in infringement of the '233 patent, embody a material part of the inventions claimed in the '233 patent, and are not staple articles of commerce suitable for substantial non-infringing use. For example, components of the Accused Products, including associated cables and clock and data recovery processors, are specifically designed for use in infringement of the '233 patent. Due to their specific designs within the Accused Products, components of the Accused Products do not have any substantial noninfringing uses.

20. As a result of Volex's past unlawful infringement of the '233 patent, Credo has suffered and will continue to suffer damages. Credo is entitled to recover damages adequate to

compensate for that infringement in an amount that will be ascertained at trial, but in no event less than a reasonable royalty.

21. On information and belief, Volex's acts of infringement have been willful and are made with knowledge of Credo's rights in the '233 patent. As stated and alleged above, Credo put Volex on notice of the '233 patent at least as early as September 1, 2023. Rather than respond to Credo's letter, Volex has instead continued to infringe the '233 patent unabated by Credo's request and with knowledge of the '233 patent and its infringement of the same. Such acts constitute willful and deliberate infringement, entitling Credo to enhanced damages and reasonable attorney fees.

22. Credo will further suffer irreparable harm unless Volex is enjoined from further infringement.

COUNT II

Infringement of U.S. Patent No. 11,012,252

23. Credo repeats and re-alleges the allegations in the Paragraphs above as though fully set forth in their entirety. Volex has infringed and continues to infringe, either literally or under the doctrine of equivalents, at least claim 1 of the '252 patent, under 35 U.S.C. § 271(a) and (g), by making, using, offering for sale or selling within the United States, or importing into the United States active electrical cables, including but not limited to, its 400G QSFP-DD AEC Cable, 400G QSFP112 AEC Cable, 800G QSFP-DD AEC Cable, 800G QSFP-DD to QSFP112 AEC Breakout Cable, 800G OSFP AEC Cable, and 800G OSFP to QSFP112 AEC Breakout Cable (collectively, the "Accused Products"). A claim chart demonstrating how the Accused Products infringe exemplary claim 1 of the '252 patent is attached hereto as Exhibit 5.

24. Volex has had knowledge of the '252 patent and has acted and is continuing to act despite an objectively high likelihood that its actions constitute direct and/or indirect infringement of a valid patent and knew or should have known of that objectively high risk since before the filing of this action. For example, Volex has had knowledge of the '252 patent at least as early as September 1, 2023. By way of a letter to Volex dated September 1, 2023, Credo identified its patent portfolio regarding AEC technology, including the '252 patent. Volex additionally has knowledge of the '252 patent via the filing of this Complaint.

25. Volex has actively induced and continues to induce the infringement by others, including its distributors and customers, of the '252 patent under 35 U.S.C. § 271(b) by, among other things, manufacturing, selling, offering for sale within the United States and/or importing into the United States the Accused Products and providing materials and instructions for operation of the same, with the specific intent and knowledge that the materials and instructions direct, teach, or assist others to infringe the '252 patent by using the Accused Products. For example, Volex actively induces others, such as its distributors and customers, who are not licensed by Credo, to use and purchase the Accused Products in the United States such that others directly infringe the '252 patent. For example, Volex provides materials and instructions to its distributors and customers on operation of the Accused Products, demonstrates and uses the Accused Products at trade shows, and offers customer support for its Accused Products, with the specific intent and knowledge that these materials and instructions direct, teach, or assist others in infringing the '252 patent. *See* Volex Brochure, <https://www.volex.com/wp-content/uploads/2024/01/Volex-High-Speed-Copper-Interconnect-Solutions-Brochure.pdf> (listing Accused Products for sale and offering customer support); Volex's AEC Chip Partner's Article, <https://www.prnewswire.com/news-releases/spectra7-and-volex-announce-successful->

demonstration-of-industry-leading-performance-for-800g-active-copper-interconnects-302054357.html (noting demos of Accused Product were successful at DesignCon 2024 in Santa Clara, California). Other active steps by Volex include, but are not limited to, encouraging, advertising (including by internet websites), promoting, and instructing others to use and/or how to use the Accused Products.

26. Volex has contributed and continues to contribute to the infringement by others, including its distributors and customers, of the '252 patent under 35 U.S.C. § 271(c) by, among other things, manufacturing, selling, offering for sale within the United States and/or importing into the United States the Accused Products for use in practicing the patented inventions of the '252 patent, knowing that the Accused Products and components are especially made or adapted for use in infringement of the '252 patent, embody a material part of the inventions claimed in the '252 patent, and are not staple articles of commerce suitable for substantial non-infringing use. For example, components of the Accused Products, including associated cables and clock and data recovery processors, are specifically designed for use in infringement of the '252 patent. Due to their specific designs within the Accused Products, components of the Accused Products do not have any substantial noninfringing uses.

27. As a result of Volex's past unlawful infringement of the '252 patent, Credo has suffered and will continue to suffer damages. Credo is entitled to recover damages adequate to compensate for that infringement in an amount that will be ascertained at trial, but in no event less than a reasonable royalty.

28. On information and belief, Volex's acts of infringement have been willful and are made with knowledge of Credo's rights in the '252 patent. As stated and alleged above, Credo put Volex on notice of the '252 patent at least as early as September 1, 2023. Rather than respond to

Credo's letter, Volex has instead continued to infringe the '252 patent unabated by Credo's request and with knowledge of the '252 patent and its infringement of the same. Such acts constitute willful and deliberate infringement, entitling Credo to enhanced damages and reasonable attorney fees.

29. Credo will further suffer irreparable harm unless Volex is enjoined from further infringement.

COUNT III

Infringement of U.S. Patent No. 11,032,111

30. Credo repeats and re-alleges the allegations in the Paragraphs above as though fully set forth in their entirety. Volex has infringed and continues to infringe, either literally or under the doctrine of equivalents, at least claim 8 of the '111 patent, under 35 U.S.C. § 271(a) and (g), by making, using, offering for sale or selling within the United States, or importing into the United States active electrical cables, including but not limited to, its 400G QSFP-DD AEC Cable, 400G QSFP112 AEC Cable, 800G QSFP-DD AEC Cable, 800G QSFP-DD to QSFP112 AEC Breakout Cable, 800G OSFP AEC Cable, and 800G OSFP to QSFP112 AEC Breakout Cable (collectively, the "Accused Products"). A claim chart demonstrating how the Accused Products infringe exemplary claim 8 of the '111 patent is attached hereto as Exhibit 6.

31. Volex has had knowledge of the '111 patent and has acted and is continuing to act despite an objectively high likelihood that its actions constitute direct and/or indirect infringement of a valid patent and knew or should have known of that objectively high risk since before the filing of this action. For example, Volex has had knowledge of the '111 patent at least as early as September 1, 2023. By way of a letter to Volex dated September 1, 2023, Credo identified its

patent portfolio regarding AEC technology, including the '111 patent. Volex additionally has knowledge of the '111 patent via the filing of this Complaint.

32. Volex has actively induced and continues to induce the infringement by others, including its distributors and customers, of the '111 patent under 35 U.S.C. § 271(b) by, among other things, manufacturing, selling, offering for sale within the United States and/or importing into the United States the Accused Products and providing materials and instructions for operation of the same, with the specific intent and knowledge that the materials and instructions direct, teach, or assist others to infringe the '111 patent by using the Accused Products. For example, Volex actively induces others, such as its distributors and customers, who are not licensed by Credo, to use and purchase the Accused Products in the United States such that others directly infringe the '111 patent. For example, Volex provides materials and instructions to its distributors and customers on operation of the Accused Products, demonstrates and uses the Accused Products at trade shows, and offers customer support for its Accused Products, with the specific intent and knowledge that these materials and instructions direct, teach, or assist others in infringing the '111 patent. *See* Volex Brochure, <https://www.volex.com/wp-content/uploads/2024/01/Volex-High-Speed-Copper-Interconnect-Solutions-Brochure.pdf> (listing Accused Products for sale and offering customer support); Volex's AEC Chip Partner's Article, <https://www.prnewswire.com/news-releases/spectra7-and-volex-announce-successful-demonstration-of-industry-leading-performance-for-800g-active-copper-interconnects-302054357.html> (noting demos of Accused Product were successful at DesignCon 2024 in Santa Clara, California). Other active steps by Volex include, but are not limited to, encouraging, advertising (including by internet websites), promoting, and instructing others to use and/or how to use the Accused Products.

33. Volex has contributed and continues to contribute to the infringement by others, including its distributors and customers, of the '111 patent under 35 U.S.C. § 271(c) by, among other things, manufacturing, selling, offering for sale within the United States and/or importing into the United States the Accused Products for use in practicing the patented inventions of the '111 patent, knowing that the Accused Products and components are especially made or adapted for use in infringement of the '111 patent, embody a material part of the inventions claimed in the '111 patent, and are not staple articles of commerce suitable for substantial non-infringing use. For example, components of the Accused Products, including associated cables and clock and data recovery processors, are specifically designed for use in infringement of the '111 patent. Due to their specific designs within the Accused Products, components of the Accused Products do not have any substantial noninfringing uses.

34. As a result of Volex's past unlawful infringement of the '111 patent, Credo has suffered and will continue to suffer damages. Credo is entitled to recover damages adequate to compensate for that infringement in an amount that will be ascertained at trial, but in no event less than a reasonable royalty.

35. On information and belief, Volex's acts of infringement have been willful and are made with knowledge of Credo's rights in the '111 patent. As stated and alleged above, Credo put Volex on notice of the '111 patent at least as early as September 1, 2023. Rather than respond to Credo's letter, Volex has instead continued to infringe the '111 patent unabated by Credo's request and with knowledge of the '111 patent and its infringement of the same. Such acts constitute willful and deliberate infringement, entitling Credo to enhanced damages and reasonable attorney fees.

36. Credo will further suffer irreparable harm unless Volex is enjoined from further infringement.

JURY DEMAND

Pursuant to Federal Rule of Civil Procedure 38, Credo demands a trial by jury on all issues so triable.

PRAYER FOR RELIEF

WHEREFORE, Credo respectfully requests the following relief:

- 1) The entry of judgment that the '233, '252, and '111 patents have been infringed by Volex;
- 2) The entry of judgment that Volex's infringement of each of the '233, '252, and '111 patents has been and continues to be willful;
- 3) The entry of judgment awarding Credo damages adequate to compensate for Volex's past, current, and future infringement, pre- and post-judgment interest as allowed by law, costs, and all other damages permitted by 35 U.S.C. § 284;
- 4) Ordering a permanent injunction enjoining Volex, its officers, agents, employees, attorneys, and all other persons in active concert or participation with Volex from infringing the '233, '252, and '111 patents except the injunction shall not apply to products for the use of Amazon Data Services, Inc. or its affiliates;
- 5) The entry of judgment declaring that this case is an exceptional one under 35 U.S.C. § 285, and awarding Credo its reasonable attorneys' fees;

- 6) Such further, necessary, and proper relief as this Court may deem just and reasonable.

Dated: March 18, 2025

Respectfully submitted,

/s/ Melissa R. Smith

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Credo Technology Group Ltd.*

CERTIFICATE OF SERVICE

The undersigned hereby certifies that counsel of record who are deemed to have consented to electronic service are being served today, March 18, 2025, with a copy of this document via the Court's CM/ECF system.

/s/ Melissa R. Smith
Melissa R. Smith