

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

OPTICAL MEASUREMENT SYSTEMS,
LLC,

Plaintiff,

v.

MARVELL TECHNOLOGY GROUP
LTD.; MARVELL SEMICONDUCTOR,
INC.;

Defendants.

Civil Action No. _____

JURY TRIAL DEMANDED

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Optical Measurement Systems, LLC (“OMS” or “Plaintiff”), for its Complaint against Defendants Marvell Technology Group Ltd., (“Marvell Ltd.”) and Marvell Semiconductor, Inc. (“Marvell Inc.”) (individually each a “Defendant” and collectively “Defendants”) alleges the following:

NATURE OF THE ACTION

1. This is an action for patent infringement arising under the Patent Laws of the United States, 35 U.S.C. § 1 *et seq.*

THE PARTIES

2. Plaintiff is a limited liability company organized under the laws of the State of Texas with a place of business at 717 N. Union Street, Suite 46, Wilmington, DE 19805.

3. Upon information and belief, Marvell Ltd. is a corporation organized and existing under the laws of Bermuda, with a place of business at Canon's Court, 22 Victoria Street, Hamilton HM 12, Bermuda. Upon information and belief, Marvell Ltd. sells and offers to sell products and services throughout the United States, including in this judicial district, and

introduces products and services that into the stream of commerce and that incorporate infringing technology knowing that they would be sold in this judicial district and elsewhere in the United States.

4. Upon information and belief, Marvell Inc. is a corporation organized and existing under the laws of California, with a place of business at 5488 Marvell Lane, Santa Clara, California 95054, and can be served through its registered agent, C T Corporation System, 818 West Seventh Street, Suite 930, Los Angeles, California 90017. Upon information and belief, Marvell Inc. sells and offers to sell products and services throughout the United States, including in this judicial district, and introduces products and services that into the stream of commerce and that incorporate infringing technology knowing that they would be sold in this judicial district and elsewhere in the United States.

JURISDICTION AND VENUE

5. This is an action for patent infringement arising under the Patent Laws of the United States, Title 35 of the United States Code.

6. This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338(a).

7. Venue is proper in this judicial district under 28 U.S.C. §§ 1391(b), (c), (d) and/or 1400(b). On information and belief, each Defendant conducts business in this District, the claims alleged in this Complaint arise in this District, and the acts of infringement have taken place and are continuing to take place in this District.

8. On information and belief, each Defendant is subject to this Court's general and specific personal jurisdiction because each Defendant has sufficient minimum contacts within the State of Delaware and this District, pursuant to due process and/or the Delaware Long Arm Statute because each Defendant purposefully availed itself of the privileges of conducting business in the State of Delaware and in this District, because each Defendant regularly conducts

and solicits business within the State of Delaware and within this District, and because Plaintiff's causes of action arise directly from each of Defendant's business contacts and other activities in the State of Delaware and this District.

COUNT I – INFRINGEMENT OF U.S. PATENT NO. 8,838,822 B2

9. The allegations set forth in the foregoing paragraphs 1 through 8 are incorporated into this First Claim for Relief.

10. On September 16, 2014, U.S. Patent No. 8,838,822 B2 (“the ’822 patent”), entitled “Media Converter and a System For Mutually Converting a Packet-Based Data Stream Into a Serial Data Stream,” was duly and legally issued by the United States Patent and Trademark Office. A true and correct copy of the ’822 patent is attached as Exhibit 1.

11. The inventions of the ’822 patent resolve technical problems related to the field of data processing in network technologies. For example, the inventions allow parties to improve fiber optic network connections and transmit data streams in a way that reduces bit error rate by converting packet-based data into serial data and vice versa.

12. The claims of the ’822 patent do not merely recite the performance of some business practice known from the pre-Internet world along with the requirement to perform it on the Internet. Instead, the claims of the ’822 patent recite one or more inventive concepts that are rooted in computerized network technology, and overcome problems specifically arising in the realm of computerized network technologies.

13. The claims of the ’822 patent recite an invention that is not merely routine or conventional data processing. Instead, the invention utilizes a computerized conversion process that converts packet based data into serial data and vice versa, resulting in higher quality data streams. The ’822 patent claims thus specify how digital data streams are manipulated to yield a desired result.

14. The technology claimed in the '822 patent does not preempt all ways of data processing, nor preempt any other well-known or prior art technology.

15. Accordingly, each claim of the '822 patent recites a combination of elements sufficient to ensure that the claim in practice amounts to significantly more than a patent on an ineligible concept.

16. Plaintiff is the assignee and owner of the right, title and interest in and to the '822 patent, including the right to assert all causes of action arising under that patent and the right to any remedies for infringement of it.

17. Upon information and belief, each Defendant has and continues to directly infringe at least claims 42 and 44 of the '822 patent by making, using, selling, importing and/or providing and causing to be used products including but not limited to the Marvell® Alaska® 88E1322 Gigabit Ethernet (GbE) transceiver, which practices a data processing method in which packet-based data is converted into serial data, and vice versa (the "Accused Instrumentalities").

18. In particular, claim 42 of the '822 patent recites a data processing method that converts packet based data into serial data and vice versa. A first interface receives incoming packet-based data and converts the incoming packet-based data stream into a continuous serial output optical data stream utilizing line encoding and block encoding. A second interface receives an incoming continuous optical data stream and converts the incoming continuous optical data stream into packet-based output optical data stream utilizing block decoding and line decoding. The continuous serial output optical data stream is transmitted over the second interface and packet-based optical data stream is transmitted over the first interface.

19. The Accused Instrumentalities infringe claim 42 of the '822 patent. (*See, e.g.*, Marvell Alaska 88E1322 Product Brief, p.1,

http://www.marvell.com/transceivers/assets/Alaska_88E1322-001_product_brief.pdf; Electronic Warfare And Radar Systems Engineering Handbook, pg. 9-7.9,

[https://books.google.co.in/books?id=RB_r9ccb-60C&pg=PT338&lpg=PT338&dq=100BASE-FX+uses+the+same+4B5B+encoding+and+NRZI+line+code&source=bl&ots=qts0Hxur9e&sig=NOM-](https://books.google.co.in/books?id=RB_r9ccb-60C&pg=PT338&lpg=PT338&dq=100BASE-FX+uses+the+same+4B5B+encoding+and+NRZI+line+code&source=bl&ots=qts0Hxur9e&sig=NOM-3y5I3cFFxdD2MqltO6b6QOs&hl=en&sa=X&ved=0ahUKEwui9YPV0oPLAhWSc04KHbCnAewQ6AEIJjAC#v=onepage&q&f=false)

[3y5I3cFFxdD2MqltO6b6QOs&hl=en&sa=X&ved=0ahUKEwui9YPV0oPLAhWSc04KHbCnAewQ6AEIJjAC#v=onepage&q&f=false](https://books.google.co.in/books?id=RB_r9ccb-60C&pg=PT338&lpg=PT338&dq=100BASE-FX+uses+the+same+4B5B+encoding+and+NRZI+line+code&source=bl&ots=qts0Hxur9e&sig=NOM-3y5I3cFFxdD2MqltO6b6QOs&hl=en&sa=X&ved=0ahUKEwui9YPV0oPLAhWSc04KHbCnAewQ6AEIJjAC#v=onepage&q&f=false); Local Area Networks: Ethernet, p.29,

<http://www.slideshare.net/soumya604159/ch-14-1751136>.)

20. Claim 44 of the '822 patent recites the method of claim 42, wherein the block encoding includes providing a predefined amount of redundancy for block synchronization and forward error correction.

21. The Accused Instrumentalities infringe claim 44 of the '822 patent. (*See, e.g.*, Computer Networks: Principles, Technologies and Protocols for Network Design, https://books.google.co.in/books?id=RpZDGxYaueUC&pg=PA300&lpg=PA300&dq=nrzi++redundancy&source=bl&ots=czV7FUScFB&sig=WzYm88DVAp8p28EUrEP6qZKz5So&hl=en&sa=X&ved=0ahUKEwims_OfxOLLAhUMCo4KHWnKDCQQ6AEIHzAA#v=onepage&q=nrzi%20%20redundancy&f=false; Towards 100 Gbps Ethernet: Development of Ethernet / Physical Layer Aspects, <http://arxiv.org/ftp/arxiv/papers/1202/1202.1095.pdf>; Digital Transmission Digital Transmission of Digital Data: of Digital Data: Line and Block Coding, Line and Block Coding, Digital Transmission Modes, http://www.eecs.yorku.ca/course_archive/2010-11/F/3213/CSE3213_06_LineBlockCoding_F2010.pdf.)

22. On information and belief, these Accused Instrumentalities are used, marketed, provided to, and/or used by or for each of Defendant's partners, clients, customers and end users across the country and in this District.

23. Each of Defendants was made aware of the '822 patent and its infringement thereof at least as early as the filing of this Complaint.

24. Upon information and belief, since at least the time each Defendant received notice, each Defendant has induced and continues to induce others to infringe at least one claim of the '822 patent under 35 U.S.C. § 271(b) by, among other things, and with specific intent or willful blindness, actively aiding and abetting others to infringe, including but not limited to each of Defendant's partners, clients, customers, and end users, whose use of the Accused Instrumentalities constitutes direct infringement of at least one claim of the '822 patent.

25. In particular, each Defendant's actions that aid and abet others such as its partners, customers, clients, and end users to infringe include advertising and distributing the Accused Instrumentalities and providing instruction materials, training, and services regarding the Accused Instrumentalities. On information and belief, each Defendant has engaged in such actions with specific intent to cause infringement or with willful blindness to the resulting infringement since each Defendant has had actual knowledge of the '822 patent and knowledge that its acts were inducing infringement of the '822 patent since at least the date Defendants received notice that such activities infringed the '822 patent.

26. Upon information and belief, each Defendant is liable as a contributory infringer of the '822 patent under 35 U.S.C. § 271(c) by offering to sell, selling and importing into the United States data processing methods in which packet-based data is converted into serial data, and vice versa to be especially made or adapted for use in an infringement of the '822 patent.

The Accused Instrumentalities are a material component for use in practicing the '822 patent and are specifically made and are not a staple article of commerce suitable for substantial non-infringing use.

27. Plaintiff has been harmed by Defendants' infringing activities.

JURY DEMAND

Pursuant to Rule 38 of the Federal Rules of Civil Procedure, Plaintiff demands a trial by jury on all issues triable as such.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff demands judgment for itself and against Defendants as follows:

- A. An adjudication that each Defendant has infringed the '822 patent;
- B. An award of damages to be paid by Defendants adequate to compensate Plaintiff for Defendants' past infringement of the '822 patent, and any continuing or future infringement through the date such judgment is entered, including interest, costs, expenses and an accounting of all infringing acts including, but not limited to, those acts not presented at trial;
- C. A declaration that this case is exceptional under 35 U.S.C. § 285, and an award of Plaintiff's reasonable attorneys' fees; and
- D. An award to Plaintiff of such further relief at law or in equity as the Court deems just and proper.

Dated: June 21, 2016

DEVLIN LAW FIRM LLC

/s/ Timothy Devlin

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