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UNITED STATES DISTRICT COURT

CENTRAL DISTRICT OF CALIFORNIA

SOUTHERN DIVISION

CORE OPTICAL TECHNOLOGIES, LLC, Plaintiff, v. ACACIA COMMUNICATIONS, INC. Defendant.	CASE NO: **COMPLAINT FOR PATENT INFRINGEMENT** **JURY TRIAL DEMANDED**

Plaintiff Core Optical Technologies, LLC ("Plaintiff" or "Core"), by and through its undersigned counsel, hereby files this Complaint for Patent Infringement against Defendant Acacia Communications, Inc. ("Defendant" or "Acacia").

For its complaint, Core alleges as follows:

THE PARTIES

1. Core is a limited liability company organized and existing under the laws of the State of California. Core has a principal place of business located at 18792 Via Palatino, Irvine, California 92603.

2. Acacia is a corporation organized and existing under the laws of Delaware. Acacia maintains its principal place of business at Three Mill and Main Place, Maynard, Massachusetts 01754.

JURISDICTION AND VENUE

3. This is an action for infringement of method claims, and *only* method claims, of U.S. Patent No. 6,782,211, entitled "Cross Polarization Interface [sic] Canceler," which was duly issued by the United States Patent and Trademark Office on August 24, 2004 ("the '211 patent"). The asserted claims in this case are *only* method claims 30, 32, 33, 35 and 37 of the '211 patent ("the Asserted Claims").

4. This Court has subject matter jurisdiction over this case under 28 U.S.C. §§ 1331 and 1338(a), because the claims arise under the patent laws of the United States, 35 U.S.C. §§ 1, *et seq*.

5. This Court has general personal jurisdiction over Acacia because Acacia maintains a regular and established place of business in California at 2700 Zanker Rd, Suite 201, San Jose, CA 95134.

6. This Court also has general personal jurisdiction over Acacia because, on information and belief, Acacia conducts continuous and systematic business within California, including within this judicial district.

7. In addition, this Court has specific personal jurisdiction over Acacia because, on information and belief, Acacia has committed acts of infringement in California, and within this judicial district.

8. This Court has specific personal jurisdiction over Acacia because, on information and belief, Acacia has committed acts that infringe the Asserted Claims in California, and in this judicial district. More specifically, on information and belief,

Acacia has performed all of the steps of the Asserted Claims in California, and in this judicial district, either personally, through intermediaries, or in conjunction with one or more joint venturers or customers. Furthermore, on information and belief, Acacia has induced and/or contributed to customers' infringement of the Asserted Claims in California, and in this district, by selling Accused Instrumentalities to customers in this district, along with documentation on how to use the Accused Instrumentalities in an infringing manner, and by providing active assistance to customers in California in using the Accused Instrumentalities in an infringing manner.

9. Venue is proper in this district against Acacia under 28 U.S.C. § 1400(b). As alleged above and below, and based on information and belief, Acacia has committed acts of infringement in this district. Moreover, Acacia—either directly, or through its 100% corporate parent Cisco Systems, Inc. ("Cisco")—has multiple regular and established places of business in this district. Those include the Acacia/Cisco facilities located at: (i) 11111 Santa Monica Blvd., Suite 400, Los Angeles, California 90025; (ii) 121 Theory Drive, Suite 100, Irvine, California 92617; and (iii) 130 Theory Drive, Suite 100, Irvine, California 92617.

10. In addition, venue is proper because Core resides in this judicial district, and Core has and continues to suffer harm in this judicial district. Moreover, a substantial part of the events giving rise to this action occurred in this judicial district, including the inventive activities giving rise to the '211 patent.

THE ASSERTED PATENT

11. Mark Core, the sole named inventor of the '211 patent, earned his Ph.D. in electrical and computer engineering from the University of California, Irvine, and is the Manager of Core Optical Technologies, LLC. The pioneering technology set forth in the '211 patent greatly increases data transmission rates in fiber optic networks, by enabling two optical signals transmitted in the same frequency band, but at generally orthogonal polarizations, to be recovered at a receiver. The patented technology that enables the recovery of these signals includes coherent optical

receivers and related methods that mitigate cross-polarization interference associated with the transmission of the signals through the fiber optic network. The coherent receivers and their patented methods mitigate the effects of polarization dependent loss and dispersion effects that limit the performance of optical networks, greatly increasing the transmission distance and eliminating or reducing the need for a variety of conventional network equipment such as amplifiers, regenerators, and compensators. The patented technology set forth in the ’211 patent has been adopted by Defendants in, at least, their packet-optical transport solutions described below.

12. On November 5, 1998, Mark Core filed with the United States Patent and Trademark Office ("USPTO") Provisional Patent Application No. 60/107,123 ("the ‘123 application") directed to his pioneering inventions. On November 4, 1999, Mark Core filed with the USPTO a non-provisional patent application, U.S. Patent Application No. 09/434,213 ("the ‘213 application"), claiming priority to the '123 application. On August 24, 2004, the USPTO issued the '211 patent from the '213 application. The entire right, title, and interest in and to the '211 patent, including all rights to past damages, has been assigned to Core in an assignment recorded with the USPTO. The '211 patent is attached as Exhibit 1 to this Complaint.

13. The Asserted Claims of the ’211 patent are each method claims. One of these is claim 33, an independent method claim. Claim 33 is reproduced below, with parenthetical annotations to identify the different elements of the claim:

> 33. A method comprising:
>
> > (33a) receiving an optical signal over a single fiber optic transmission medium,
> >
> > > (33a1) the optical signal being at least two polarized field components independently modulated with independent information bearing waveforms; and
> >
> > (33b) mitigating cross polarization interference

associated with the at least two modulated polarized field components to reconstruct the information bearing waveforms

(33b1) using a plurality of matrix coefficients being complex values to apply both amplitude scaling and phase shifting to the at least two modulated polarized field components.

ACACIA'S CROSS POLARIZATION CANCELLING DEVICES

14. Acacia and/or its divisions, subsidiaries, and/or agents are engaged in the business of making, using, distributing, importing, offering for sale and/or selling devices that can be configured to mitigate and/or cancel cross polarization interference in received fiber optic signals, when used as part of infringing optical receiver systems. As so configured, these optical receiver systems, when incorporating the Acacia devices, perform all the steps of the methods claimed in the Asserted Claims, during normal use. These Acacia devices include, but are not limited to: (i) all members of the "CFP-DCO Product Family" described at https://acacia-inc.com/product/cfp-dco/, including all prior and current versions, revisions, and variations of such products, and all components of such products, including all hardware and software ("CFP-DCO"); (ii) all members of the "CFP2-ACO Product Family" described at https://acacia-inc.com/product/cfp2-aco/, including all prior and current versions, revisions, and variations of such products, and all components of such products, including all hardware and software ("CFP2-ACO"); (iii) all members of the "CFP2-DCO Product Family" described at https://acacia-inc.com/product/cfp2-dco/, including all prior and current versions, revisions, and variations of such products, and all components of such products, including all hardware and software ("CFP2-DCO"); (iv) all members of the "OSFP Product Family" described at https://acacia-inc.com/product/osfp-product-family/, including all prior and current versions, revisions, and variations of such products, and all components of such products, including all hardware and software ("OSFP");

(v) all members of the "QSFP-DD Product Family" described at https://acacia-inc.com/product/qsfp-dd-product-family/, including all prior and current versions, revisions, and variations of such products, and all components of such products, including all hardware and software ("QSFP-DD"); (vi) all "DSP ASIC Products" described at https://acacia-inc.com/product/dsp-asic-products/ , including all prior and current versions, revisions, and variations of such products, and all components of such products, including all hardware and software ("DSP ASICs"); (vii) all "Silicon Photonic Integrated Circuits" described at https://acacia-inc.com/product/silicon-photonic-integrated-circuits-pic/ , including all prior and current versions, revisions, and variations of such products, and all components of such products, including all hardware and software ("Silicon PICs"); (viii) all products in the "AC100-CFP" product family described at http://ir.acacia-inc.com/news-releases/news-release-details/acacia-communications-industry-first-coherent-ac100-cfp-now, and all products bearing a designation that includes the characters "AC100" or "AC-100," including all prior and current versions, revisions, and variations of such products, and all components of such products, including all hardware and software ("AC100"); (ix) all members of the AC200 product family, and all products bearing a designation that includes the characters "AC200" or "AC-200," including all prior and current versions, revisions, and variations of such products, and all components of such products, including all hardware and software ("AC200"); (x) all members of the "AC400 FLEX Product Family" described at https://acacia-inc.com/product/ac400-flex/ , and all products bearing a designation that includes the characters "AC400" or "AC-400," including all prior and current versions, revisions, and variations of such products, and all components of such products, including all hardware and software ("AC400"); and (xi) all members of the "AC1200 Product Family" described at https://acacia-inc.com/product/ac1200/ , and all products bearing a designation that includes the characters "AC1200" or "AC-1200," including all prior and current versions, revisions, and variations of such products, and all components of such

products, including all hardware and software ("AC1200") (collectively, the "Accused Instrumentalities").

15. Optical receiver systems incorporating the Accused Instrumentalities are, or can be, configured to perform all of the steps recited in the Asserted Claims during normal use. On information and belief, Acacia has actually used the Accused Instrumentalities to perform each step of the methods recited in the Asserted Claims of the '211 Patent, within the United States, either itself, through intermediaries, or in conjunction with one or more joint venturers, customers, or suppliers.

16. Acacia's product literature, website, and other public information shows that optical receiver systems incorporating the Accused Instrumentalities are configured to perform all of the steps of claim 33, during normal use.

17. Element 33(a) recites "receiving an optical signal over a single fiber optic transmission medium." Optical receiver systems incorporating the Accused Instrumentalities are configured to do this during normal operation, as shown below:

a. CFP-DCO is an "industry-standard, pluggable CFP form factor" module which includes a "silicon photonic integrated circuit." *See* Exhibit 2 (Acacia product portfolio) at 3. CFP pluggable modules are governed by the CFP MSA Hardware Specification, attached as Exhibit 3. That specification shows that a CFP module includes "RX [receiver] optics" which receive optical signals over a fiber optic transmission medium. Ex. 3 at 8.

b. CFP2-ACO follows the "industry standard pluggable CFP2 form factor [that] was designed in accordance with the Implementation Agreement defined by the Optical Internetworking Forum." Ex. 2 at 3. The Implementation Agreement for CFP2-ACO is attached as Exhibit 4. The Implementation Agreement shows that CFP2-ACO modules have an "Rx Input" that receives optical signals over a fiber optic transmission medium. Ex. 4 at 16.

c. CFP2-DCO modules are governed by the OIF Implementation Agreement for such modules, which is attached as Exhibit 5. CFP2-DCO

modules include "RX Optics" that receive optical signals over a fiber optic transmission medium. *See* Ex. 5 at 9.

d. OSFP is an "Octal Small Form-factor Pluggable" module that includes a "silicon photonic integrated circuit" which receives optical signals over a fiber optic transmission medium. Ex. 6 (OSFP website printout) at 1-2.

e. QSFP-DD is a "Quad Small Form-factor Pluggable Double Density" module which includes a "silicon photonic integrated circuit (PIC)" which receives optical signals over a fiber optic transmission medium. *See* Ex. 7 (QSFP-DD website printout) at 1-2.

f. The DSP ASICs are "at the heart of the aforementioned coherent module products," which—as shown above—receive optical signals over a fiber optic transmission medium. Ex. 2 at 4. Thus, the DSP ASICs are part of products that receive optical signals over a fiber optic transmission medium.

g. The Silicon PICs are described in the Acacia document "Single-Chip Silicon Photonics 100-GbsCoherent Transceiver" (Exhibit 8). According to that document, the Silicon PICs "contains all the optics for a 100-Gb/s coherent transceiver, except the laser." Ex. 8 at 1. The Silicon PICs receive optical signals over a fiber optic transmission medium at the "R" port. *Id.* at 3.

h. AC100 is the same product family as CFP-DCO. Ex. 2 at 3. AC200 is the same product family as CFP2-ACO and/or CFP2-DCO. *Id.* Thus, AC100 and AC200 satisfy this element during normal use, for the same reasons discussed above as to CFP-DCO, CFP2-ACO, an CFP2-DCO.

i. AC400 is an "Embedded Module[]" that receives optical signals over fiber optic transmission media at rates of "100G to 400G." Ex. 2 at 2.

j. AC1200 is an "Embedded Module" that receives optical signals over fiber optic transmission media at rates of "up to 600 Gbps." *Id.*

18. Element 33(a1) recites "the optical signal being at least two polarized field components independently modulated with independent information bearing

waveforms." Communication in which "at least two polarized field components [are] independently modulated with independent information bearing waveforms" is called Polarization-Division-Multiplexing ("PDM") or Dual-Polarization ("DP") optical communication. Optical receiver systems incorporating the Accused Instrumentalities are configured to perform PDM/DP optical communication during normal operation, as shown below:

a. CFP-DCO (a.k.a. AC100) was the first "commercial coherent 100Gbps system" employing the OIF's implementation agreement for "integrated ***dual-polarization*** coherent receivers." Ex. 9 (Merenguel Thesis) at 50, 141. On information and belief, a CFP-DCO (i.e., AC100) module is the subject of the article "A Robust Real-Time 100G Transceiver with Soft-Decision Forward Error Correction" (Exhibit 10), co-authored by several Acacia employees. That article states that the AC100 module is a "120 Gb/s coherent ***polarization-multiplexed*** quadrature-phase-shift-keyed transceiver." Ex. 10 at 1. Thus, the CFP-DCO (AC100) module performs dual-polarization optical communication during normal operation.

b. CFP2-ACO follows the OIF Implementation Agreement for CFP2-ACO, Exhibit 4. That Implementation Agreement states that CFP2-ACO modules perform "***dual polarization*** coherent optical signaling." Ex. 4 at 12. Thus, Acacia's CFP2-ACO performs DP communication in ordinary use.

c. CFP2-DCO is described in the article "Real-time transmission of 16 TB/s over 1020km using 200Gb/s" (Exhibit 11), co-authored by multiple Acacia employees. That article states that CFP2-DCO performs "200Gb/s ***polarization multiplexed (PM)***" communication using "8QAM" or "16QAM" modulation formats. Ex. 11 at 2. Thus, CFP2-DCO is configured to perform dual-polarization optical communication during normal use.

d. "AC200" refers to both CFP2-ACO and CFP2-DCO. *See* Ex. 2 at 3. As discussed above, CFP2-ACO and CFP2-DCO perform dual-polarization

optical communication during normal use; thus, AC200 does as well.

e. Acacia has sold two different types of OSFP products: "400ZR" products, and "OpenZR+" products. Ex. 6 at 4. The 400ZR products are governed by the OIF Implementation Agreement for 400ZR (Exhibit 12). That Implementation Agreement states that 400ZR products use "***DP***-16QAM modulation," i.e., dual-polarization. Ex. 12 at 14. Meanwhile, OpenZR+ products are governed by the OpenZR+ MSA Technical Specification (Exhibit 13). That Technical Specification states that OpenZR+ products use "dual polarization coherent" communication. Ex. 13 at 6-7. Thus, Acacia's OSFP products perform dual-polarization communication during normal operation.

f. Acacia has sold two types of QSFP-DD products: "400ZR" and "OpenZR+" products. Ex. 7 at 4. As discussed above, both types of products perform dual-polarization communication during normal use.

g. The DSP ASICs are "at the heart of the aforementioned coherent module products," which—as shown above—receive dual-polarization optical signals during normal use in optical systems. Ex. 2 at 4. Thus, the DSP ASICs are part of products that receive DP optical signals during normal use.

h. The Silicon PICs actually receive dual-polarization optical signals at the "R" (receive) port. Ex. 8 at 2-3. Thus, the Silicon PICs are configured to receive dual-polarization optical signals during normal use.

i. According to the article "Beyond the mega-data center: networking multi-data center regions" (Exhibit 14), both the "Acacia AC200" and "AC400" perform "***dual polarization (DP)*** 200 Gbit/s 16 quadrature amplitude modulation (QAM)." Ex. 14 at 17. The article "Acacia unveils 400 Gigabit coherent transceiver" (Exhibit 15) confirms that the "AC-400" module performs "polarization multiplexing." Ex. 15 at 2. Thus, the AC400 performs dual-polarization optical communication during normal use.

j. According to the presentation "Everything You Always Wanted to

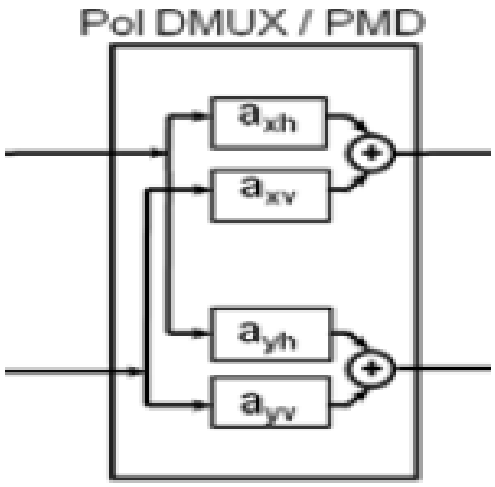
Know About Optical Networking – But Were Afraid to Ask" (Exhibit 16), the AC1200 uses "Polarization Multiplexing." Ex. at 91-93. Thus, the AC1200 performs dual-polarization optical communication during normal use.

19. Element 33(b) recites "mitigating cross polarization interference associated with the at least two modulated polarized field components to reconstruct the information bearing waveforms." Optical receiver systems incorporating the Accused Instrumentalities are configured to do this during normal operation, as shown below:

a. According to Acacia's May 17, 2019 Form 8-K Report to the SEC (Exhibit 17), the AC100 originally used the "Everest" DSP ASIC. Ex. 17 at 27; *see also* Exhibit 18 (Acacia's December 21, 2015 Form S-1) at 91 (confirming that "AC100-G" was "based on our Everest DSP ASIC"). According to the September 16, 2012 article "Acacia Communications Announces the Industry's First 100G Coherent Module That Is Commercially Deployed Globally" (Exhibit 19), that "purpose-built ASIC" (Everest) performed "[f]ast and extensive Polarization Mode Dispersion (PMD) compensation . . . enabling transport of 100G over fiber links that cannot even support 10G today." Ex. 19 at 2. On information and belief, the only way that the AC100 ASIC (Everest) could perform "[f]ast and extensive Polarization Mode Dispersion (PMD) compensation . . . enabling transport of 100G over fiber links that cannot even support 10G today" is if it mitigated cross-polarization interference (and other polarization-related transmission impairments, including PMD) by means of the "XPIC" approach of the '211 patent. Additionally, the public version of the March 8, 2011 Strategic Partnering Agreement between Acacia and ADVA (Exhibit 20) (downloaded from SEC website) states that the "AC100" module (Ex. 20 at 1) had to achieve certain levels of "tolerance to change in SOP [state of polarization]," "PMD tolerance," "[chromatic] dispersion tolerance," and "PDL [polarization dependent loss] tolerance." *Id.* at 38-39. On information

and belief, the only way that the AC100 Everest chip could achieve high levels of PMD, PDL, and CD tolerance in a DSP is if it followed the "XPIC" approach of the '211 patent. Accordingly, the Everest ASIC in the AC100 literally performs this claim element during normal operation.

b. Moreover, the Everest ASIC (40 nm) is described in "A Robust Real-Time 100G Transceiver With Soft-Decision Forward Error Correction" (Ex. 10). That article shows that the receive path in the AC100 includes the Everest ASIC, which includes a block that performs "Dispersion and PMD Equalization." Ex. 10 at 2. That block includes the "Pol DMUX/PMD" block:



Id. As the article explains, this block performs "PMD compensation of up to 30 ps mean PMD via a time-domain butterfly structure, which uses fractional tap spacing, where the tap updates are based on the constant modulus algorithm." *Id.* As seen above, the 2x2 butterfly structure of the "Pol DMUX / PMD" block in the Everest ASIC has the exact same structure as the "XPIC" shown in Figures 4A and 4B of the '211 patent. Moreover, it performs the same function—i.e., correcting polarization-dependent transmission impairments, including PMD, to reconstruct the originally-transmitted signals. *Id.* This further confirms that the Everest ASIC in the AC100 Module is configured to perform this claim element during normal operation.

c. According to Acacia's May 17, 2019 Form 8-K (Exhibit 17), CFP-DCO uses the "Sky" DSP ASIC. Ex. 17 at 27. On information and belief, the Sky ASIC is an evolution of the original Everest ASIC. *See* Ex. 18 at 90-91 (describing a continuous evolution of ASICs and product families); Ex. 17 at 26-27 (showing the evolution of the ASICs and product families in a straight line, connected by arrows). This is confirmed by the fact that Acacia labeled both modules "AC100" modules. *Id.* On information and belief, as a direct evolution of the original Everest ASIC, the Sky ASIC in the CFP-DCO uses the same "Pol DMUX / PMD" block as the Everest DSP on which it was based, or a similar or equivalent block, to mitigate polarization-dependent transmission impairments and reconstruct the originally-transmitted signals. Thus, for the same reasons as the Everest-based AC100, the Sky-based CFP-DCO is configured to perform this claim element during normal operation.

d. According to Acacia's May 17, 2019 Form 8-K, the AC400 module uses the "Denali" DSP ASIC. Ex. 17 at 27. Denali is an evolution of the Sky chip. *See* Exhibit 21 (Article, "Court awards Viasat $49.3 million in damages in SDFEC IP suit against Acacia Communications") at 2-6; *see also* Exhibit 22 (Article, "Acacia eyes pluggables as it demos its AC1200 module") at 2. On information and belief, as a direct evolution of the Sky ASIC—itself a direct evolution of the Everest ASIC—the Denali DSP in the AC400 uses the same "Pol DMUX / PMD" block as the Everest DSP on which it was based, or a similar or equivalent block, to mitigate polarization-dependent transmission impairments and reconstruct the originally-transmitted signals. Thus, for the same reasons as the Everest-based AC100, the Denali-based AC400 is configured to perform this claim element during normal operation.

e. The CFP2-DCO uses the "Meru" ASIC. *See* Ex. 17 at 26-27. The Meru ASIC was an evolution of the Sky chip. *See* Ex. 21 at 2-6; Ex. 22 at 2. On information and belief, as a direct evolution of the Sky ASIC—itself a direct

evolution of the Everest ASIC—the Meru DSP in the CFP2-DCO uses the same "Pol DMUX / PMD" block as the Everest DSP on which it was based, or a similar or equivalent block, to mitigate polarization-dependent transmission impairments and reconstruct the originally-transmitted signals. Thus, for the same reasons as the Everest-based AC100, the Meru-based CFP2-DCO is configured to perform this claim element during normal operation.

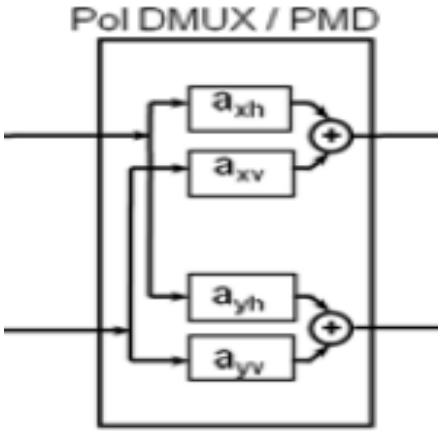
f. The AC1200 uses the "Pico" ASIC. *See* Ex. 17 at 26-27. On information and belief, the Pico ASIC was an evolution of the Sky chip. *See* Ex. 22 at 2; *see also* Ex. 17 at 26-27 (showing a straight line of product evolution from the Everest-based AC100 to the Pico-based AC1200, all connected by arrows). On information and belief, the Pico DSP in the AC1200 uses the same "Pol DMUX / PMD" block as the Everest DSP on which it was based, or a similar or equivalent block, to mitigate polarization-dependent transmission impairments and reconstruct the originally-transmitted signals. Thus, for the same reasons as the Everest-based AC100, the Pico-based AC1200 is configured to perform this claim element during normal operation.

g. Acacia's literature indicates that Acacia sometimes sells the Everest, Sky, Denali, Meru, or Pico ASICs as "standalone DSPs." Ex. 2 at 4. To the extent that any Acacia customers purchased these ASICs as "standalone DSPs," and incorporated them into products that performed dual-polarization communication, then those standalone DSPs would have performed this element during normal operation, for the reasons stated above.

20. Element 33(b1) recites "using a plurality of matrix coefficients being complex values to apply both amplitude scaling and phase shifting to the at least two modulated polarized field components." Optical receiver systems incorporating the Accused Instrumentalities are configured to do this during normal operation, as shown below:

a. As shown in Paragraph 19a *supra*, the Everest ASIC contains a

"Pol DMUX / PMD" block which performs "PMD compensation of up to 30 ps mean PMD via a time-domain butterfly structure, which uses fractional tap spacing, where the tap updates are based on the constant modulus algorithm." Ex. 10 at 2. The structure of that block is as follows (*id.*):



Such a 2x2 butterfly block performs the following matrix computation:

$$\begin{pmatrix} X_{out} \\ Y_{out} \end{pmatrix} = \begin{pmatrix} a_{xh} & a_{xv} \\ a_{yh} & a_{yv} \end{pmatrix} \begin{pmatrix} X_{in} \\ Y_{in} \end{pmatrix}$$

, where X_{in} are the incoming x-polarization signals, Y_{in} are the incoming y-polarization signals, X_{out} are the computed (corrected) x-polarization signals, with the effects of PMD and other transmission impairments (including PDL) removed, Y_{out} are the computed (corrected) y-polarization signals, with the effects of PMD and other transmission impairments (including PDL) removed, and the a_{ij} are the "tap" coefficients whose values are updated based on the "constant modulus algorithm." *Id.* at 2. In order to correct for PMD (as the article states that this block does), the weights a_{ij} must be complex, so that the filter can correct for both amplitude ***and phase*** distortions applied by the transmission medium. *See* Ex. 1, 6:10-53. When the complex weights a_{ij} are multiplied by (X_{out}, Y_{out}), this necessarily performs both "amplitude scaling" and "phase shifting," because that is what complex multiplication does. Therefore, Exhibit 10 shows that the "Pol DMUX / PMD" block in the Everest

ASIC "us[es] a plurality of matrix coefficients being complex values to apply both amplitude scaling and phase shifting to the at least two modulated polarized field components," as recited in this claim, during normal operation. Thus, the Everest-based AC100 performs this element during normal operation.

b. As discussed above in Paragraphs 19c-f, on information and belief (and based on the documents cited above), the Sky, Denali, Meru, and Pico ASICs used respectively in the CFP-DCO, AC400, CFP2-DCO, and AC1200 modules are based on, and perform the same (or substantially the same) 2x2 complex butterfly calculation as, the Everest ASIC. Accordingly, for the same reasons stated above as to the Everest-based AC100, the Sky-based CFP-DCO, Denali-based AC400, Meru-based CFP2-DCFO, and Pico-based AC1200 modules are all configured to perform this element during normal operation.

c. Finally, if the Everest, Sky, Denali, Meru, and Pico ASICs were ever sold as "Standalone DSPs," those Standalone DSPs practiced this element when incorporated into Acacia's customers' optical receiving equipment during normal operation, for the reasons stated in Paragraphs 20a-b *supra*.

21. Accordingly, the publicly-available evidence shows that optical receiver systems incorporating the Accused Instrumentalities, when configured properly, perform all of the elements of claim 33, during normal use.

Marking – 35 U.S.C. § 287(a)

22. Core has never made, sold, used, offered to sell, or imported into the United States any article that practices any claim of the '211 Patent. Core has never sold, commercially performed, or offered to commercially perform any service that practices any claim of the '211 Patent.

23. Prior to October 21, 2014, Core had never authorized, licensed, or in any way permitted any third party to practice any claim of the '211 Patent.

24. Moreover, Core alleges that Acacia has infringed ***only*** method claims of the '211 patent. Core does not allege that Acacia infringes any apparatus claims of the

'211 patent. The marking requirement of 35 U.S.C. § 287(a) does not apply when a patentee only asserts infringement of method claims. *See Crown Packaging Tech., Inc. v. Rexam Beverage Can Co.*, 559 F.3d 1308, 1316 (Fed. Cir. 2009); *Hanson v. Alpine Valley Ski Area, Inc.*, 718 F.2d 1075, 1082-83 (Fed. Cir. 1983).

25. Because Core has never directly marketed any product or service that practices any of the claimed inventions of the '211 Patent, and no third party was authorized to practice any claimed inventions of the '211 patent prior to October 21, 2014, 35 U.S.C. § 287(a) cannot prevent or otherwise limit Core's entitlement to damages for acts of infringement that occurred prior to October 21, 2014.

26. Because Core alleges that Acacia has infringed only method claims of the '211 patent, 35 U.S.C. § 287(a) does not apply, even for acts of infringement that occurred after October 21, 2014. Thus, 35 U.S.C. § 287(a) does not limit Core's entitlement to damages against Acacia, in any way, for any period of time.

COUNT I – DIRECT PATENT INFRINGEMENT (35 U.S.C § 271(a))

27. Plaintiff repeats and realleges each and every allegation contained in Paragraphs 1-26 above, as if fully set forth herein.

28. Acacia has made, used, offered for sale, and/or sold, directly and/or through intermediaries, in this judicial district and/or elsewhere in the United States, one or more of the Accused Instrumentalities, and/or imported into the United States one or more of the Accused Instrumentalities.

29. Acacia's acts complained of herein, including its use of the Accused Instrumentalities as part of optical receiver systems, directly infringed the Asserted Claims, because—as shown in Paragraphs 16-21 *supra* (for claim 33)—optical receiver systems incorporating the Accused Instrumentalities are configured to perform all of the steps recited in those claims during normal use.

30. Acacia has directly infringed the Asserted Claims of the '211 Patent by performing all of the steps of those claims within the U.S., either itself, through intermediaries, or in conjunction with joint venturers and/or customers. Specifically,

on information and belief, Acacia has performed all of the steps recited in each Asserted Claim, either personally, through intermediaries, or in conjunction with joint venturers and/or customers, by operating optical receiver systems incorporating the Accused Instrumentalities within the U.S. Such operation necessarily performs all of the steps recited in those claims, as shown in Paragraphs 16-21 *supra* (for claim 33).

COUNT II - INDUCEMENT OF INFRINGEMENT (35 U.S.C § 271(b))

31. Plaintiff repeats and realleges each and every allegation contained in Paragraphs 1-30 *supra*, as if fully set forth herein.

32. Acacia actively induced infringement of the Asserted Claims in violation of 35 U.S.C. § 271(b), prior to the expiration of the '211 patent, and less than six years prior to the filing of this Complaint (the "Relevant Time Period").

33. Acacia actively induced infringement of the Asserted Claims by selling the Accused Instrumentalities to one or more customers in the U.S., along with documentation and instructions demonstrating how to use the devices as part of optical receiver systems to infringe the claims, and by providing service, maintenance, support, and other active assistance to its customers in using the Accused Instrumentalities in the United States. The documentation which Acacia provided includes, at least: (i) the product information for the Accused Instrumentalities set forth on Acacia's websites, including https://acacia-inc.com/, which includes various white papers, manuals, datasheets, and other technical documentation for the Accused Instrumentalities; (ii) the specific instances of Acacia's product documentation which are attached as Exhibits to this Complaint, or which are otherwise referenced in this Complaint; and (iii) the other product documentation which, on information and belief, Acacia provided in electronic and/or paper form to its customers for the Accused Instrumentalities.

34. Public documents confirm that Acacia provided extensive documentation to its customers, showing how to use the Accused Instrumentalities in an infringing system. For instance, a redacted version of the March 8, 2011 Strategic Partnering

Agreement between Acacia and ADVA (Exhibit 20) is available on the SEC website, https://www.sec.gov/Archives/edgar/data/1651235/000119312515409344/d46988dex1016.htm. That agreement governed the terms under which Acacia would supply "early access to the AC100 100G coherent optical module" to its "Strategic Partners," including "ADVA [and] Juniper." Ex. 20 at 1. The Agreement states that Acacia was required to provide extensive "documentation accompanying any Product" (*id.* at 9), including "documentation related . . . [to] any firmware or software incorporated or embedded therein" (*id.* at 11), "Final Product Specifications" (*id.* at 23), "[d]ocumentation . . . showing all register default values," and "test report[s] for all parameters tested prior to shipment" (*id.* at 38). Acacia was also required to provide "design consultation and references designs" to its customers. *Id.* at 58. Thus, Acacia was required to (and, on information and belief, did) provide extensive documentation to its customers, including ADVA and Juniper, to assist them in using the Accused Instrumentalities in an infringing manner.

35. The Strategic Partnering Agreement further indicates that Acacia was required to provide extensive hands-on assistance to ADVA and Juniper in using the Accused Instrumentalities in an infringing manner. This hands-on assistance included: (i) that Acacia would "provide reasonable access to ADVA for use of Acacia's development test platforms at Acacia's facility" (*id.* at 4); (ii) that "Acacia will provide ADVA with reasonable access to its personnel who are performing the Development Services" (*id.*); (iii) that "Acacia will assist ADVA in responding to carrier RFIs and RFPs, attend meetings (related to technical aspects of the Product) with Customer's prospective customers and represent Customer's interests at OIF and other standard-setting bodies" (*id.*); (iv) that Acacia would "provide certain installation, custom development, consulting, training or other professional services" (*id.* at 5); (v) that "Acacia will use all commercially reasonable efforts to provide ADVA (but not its customers) with technical support services for the Products," including ***free*** service during the warranty period, and charged service thereafter (*id.*

at 5); (vi) that "Acacia shall make a direct service support facility available for ADVA to contact during its normal working hours regarding, without limitation, root cause analyses and error correction" (*id.* at 9); and (vii) that Acacia would provide "special technical support and services" which "are provided to Strategic Partners well ahead of other customers" (*id.* at 48).

36. Indeed, the Strategic Partnering Agreement indicates that ADVA and Juniper were not mere hands-off customers of Acacia—rather, they were ***active partners*** in the design, development and use of the Accused Instrumentalities. *See, e.g.,* Ex. 20 at 47 ("The Parties will collaborate to ensure a successful integration of the Product Versions into ADVA's system according to the agreed time-to-market timeline shown below"), 48 ("Acacia agrees to . . . Work with ADVA to ensure optimized performance in ADVA's applications.") Thus, it is clear that Acacia worked ***directly*** with its "Strategic Partner" customers, including ADVA and Juniper, to assist them in developing and using the Accused Products as part of optical receiver systems in an infringing manner.

37. On information and belief, in addition to its "Strategic Partner" customers, Acacia also provided (during the Relevant Time Period) technical documentation and hands-on assistance to its regular customers, in a way that assisted the customers to use the Accused Instrumentalities in an infringing manner. Core expects that much of this technical documentation, and many of the details regarding the hands-on assistance, are non-public. Core expects that it will uncover such documentation and information through discovery in this case. Core reserves the right to amend this Complaint to identify such additional documentation and information as they are uncovered through discovery, to the maximum extent permitted by law.

38. Moreover, on information and belief, Acacia provided (during the Relevant Time Period) direct support to its ***customers' customers*** in setting up, installing, and using the Accused Instrumentalities as part of optical receiver systems to perform infringing dual-polarization communication. On information and belief,

Acacia provided such support either itself, or through contractors subject to its control. Core expects that much of the documentation and information regarding such support is non-public. Core reserves the right to amend this Complaint to cite additional information and documentation regarding such activities once it is produced in discovery.

39. When Acacia performed the acts of inducement outlined in Paragraphs 32-38 *supra* (and other acts of inducement), it was aware of the '211 patent, and knew (or was willfully blind) that its customers' normal use of the Accused Instrumentalities as part of optical receiver systems would infringe the Asserted Claims of the '211 patent.

40. First, on information and belief, Acacia knew of the '211 Patent's existence and relevance due to Core's filing of complaints for infringement of that patent in: (1) Central District of California Case No. SACV 12-1872 AG, styled *Core Optical Technologies, LLC v. Ciena Corporation, et al*. (filed October 29, 2012); (2) Central District of California Case No. SACV 16-0437 AG, styled *Core Optical Technologies, LLC v. Fujitsu Network Communications, Inc*. (filed March 7, 2016); and (3) Central District of California Case No. SACV 8:17-cv-00548AG, styled *Core Optical Technologies, LLC v. Infinera Corp*. (filed March 24, 2017).

41. On information and belief, as a major player in the optical networking industry, Acacia monitors patent lawsuits against other players in the industry. In addition to being a major player in the industry, Acacia was also (at all relevant times) a member the Optical Internetworking Forum, or "OIF." *See* Ex. 23 (November 14, 2013 OIF Implementation Agreement for Integrated Dual Polarization Intradyne Coherent Receivers) at 25 (listing "Acacia" as a member of OIF when the document was created); Ex. 4 (January 22, 2016 OIF Implementation Agreement for CFP2-Analogue Coherent Optics Module) at 92 (same); Ex. 5 (October 17, 2018 Implementation Agreement for CFP2-Digital Coherent Optics Module) at 23 (same). The OIF Implementation Agreements, including Exhibits 4, 5, and 23, established

infringing dual-polarization coherent communication as the industry standard for long-haul, high speed communication. All three of the prior Core Defendants were also members of OIF. *See* Ex. 23 at 25 (listing "Ciena Corporation," "Fujitsu," and "Infinera" as members); Ex. 4 at 92 (same); Ex. 5 at 23-25 (same). On information and belief, Acacia monitored Core's prior lawsuits against fellow OIF members Ciena, Fujitsu and Infinera, and/or had discussions with Ciena, Fujitsu and Infinera about those lawsuits. On information and belief, through such monitoring and/or discussions, Acacia knew of—or was willfully blind to—the existence of the '211 Patent, due to Core's three prior lawsuits against other industry players. Through such monitoring and/or discussions, Acacia knew—or was willfully blind—that its Accused Instrumentalities, when incorporated and used as part of optical receiver systems, infringe the '211 Patent during normal use.

42. Indeed, Acacia is not just an "industry player" in the optical networking industry. Acacia's ***entire business*** is to sell products designed for use in optical receiver systems that practice the Patent-in-Suit. The ***only*** products listed on Acacia's website, https://acacia-inc.com/products/, are designed for use in optical receiver systems that practice the Patent-in-Suit, i.e., "AC1200," "AC400," "CFP-DCO," "CFP2-DCO," "CFP2-ACO," "OSFP," "QSFP-DD," "DSP ASICs," and "Silicon PICs." *Id.* Because Acacia's ***entire product line*** is designed for use in optical receiver systems that practice the Patent-in-Suit, Acacia would have been especially alert to lawsuits concerning dual-polarization optical technology. Because Core sued three other OIF members for infringement due to their dual-polarization optical equipment—and because OIF member Acacia ***only*** sells such optical equipment—on information and belief, Acacia monitored, and was aware of, Core's lawsuits against Ciena, Fujitsu, and Infinera. Through such monitoring, on information and belief, Acacia learned of the '211 patent, and learned that it covers dual-polarization optical equipment—the ***only*** type of equipment that Acacia sells. Thus, on information and belief, Acacia knew that the Accused Instrumentalities are used in optical receiver

systems that infringed the '211 Patent during the Relevant Time Period.

43. Further, according to the Master Supply Agreement between Acacia and Fujitsu dated October 18, 2013 (Exhibit 24), which is available for download at https://www.sec.gov/Archives/edgar/data/1651235/000119312515409344/d46988dex1018.htm, Acacia obtains its "Application Specific Integrated Circuits" from Fujitsu. Ex. 24 at 1. Because all of Acacia's products are designed for use in optical receiver systems that practice the Patent-in-Suit, these "Application Specific Integrated Circuits" must be part of the Accused Instrumentalities—likely, the "DSP ASICs." Shortly after Fujitsu was sued by Core, Fujitsu informed its major customer, Cisco, of the '211 patent. *See* Ex. 25 (Core's Second Amended Complaint in Case No. 20-cv-1468), ¶¶ 71-73. Because Fujitsu informed its major customer Cisco of the '211 patent, it likely also informed its major customer Acacia of the '211 patent. Thus, on information and belief, Fujitsu informed Acacia of the '211 patent on or about July 7, 2016 (the day it informed Cisco). This further advised Acacia of the '211 patent. Once Acacia reviewed the '211 patent, it would have immediately discovered that it relates to Acacia's dual-polarization optical products. Thus, during the Relevant Time Period, Acacia knew (or was willfully blind) that the Accused Instrumentalities are designed for use in optical receiver systems that infringe the Patent-in-Suit.

44. Meanwhile, according to the November 11, 2016 Master Purchase Agreement between Acacia and Cisco (Exhibit 26), available for download at https://www.sec.gov/Archives/edgar/data/1651235/000165123519000189/exhibit101.htm, Cisco was an Acacia customer for the Accused Instrumentalities as of, at least, November 11, 2016. Ex. 23 at 1. On information and belief, because Cisco was aware of the '211 Patent as of July 2016, it likely informed Acacia—its supplier—of the '211 patent as of, at least, the November 11, 2016 date of the Master Purchase Agreement. For this additional reason, on information and belief, Acacia was aware of the '211 Patent during the Relevant Time Period. Once Acacia reviewed the '211 patent, it would have immediately discovered that it directly relates to Acacia's dual-

polarization optical products. Thus, during the Relevant Time Period, Acacia knew (or was willfully blind) that the Accused Instrumentalities are designed for use in optical receiver systems that infringe the Patent-in-Suit.

45. Moreover, as shown in Exhibit 20, Acacia has been a "Strategic Partner" of ADVA since 2011. On December 18, 2017, Core sent a letter to ADVA expressly advising it that ADVA was committing "infringement of the '211 Patent arising from ADVA's manufacture, use, importation, offer for sale, and/or sale in the United States of ADVA's coherent 100G and higher transport solutions." Ex. 27 (LaPorte letter) at 1. Since ADVA was Acacia's "strategic partner," and Acacia supplied components for ADVA's "coherent 100G and higher transport solutions," on information and belief, ADVA advised Acacia of the '211 patent and the notice letter shortly after it received the letter. For this additional reason, Acacia was aware of the '211 patent during the Relevant Time Period. Once Acacia reviewed the '211 patent, it would have immediately discovered that it directly relates to Acacia's dual-polarization optical products. Thus, during the Relevant Time Period, Acacia knew (or was willfully blind) that the Accused Instrumentalities are designed for use in optical receiver systems that infringe the Patent-in-Suit.

46. On information and belief, once Acacia learned of the '211 patent from the foregoing sources—and given that Acacia's ***entire business*** is to sell dual-polarization optical equipment, which is the exact subject matter of the '211 patent—Acacia must have analyzed the '211 patent to determine whether the Accused Instrumentalities were used in optical receiver systems to infringe any claims of the '211 patent. Upon performing such an analysis, Acacia must have concluded that the systems incorporating the Accused Instrumentalities do infringe, at least, the Asserted Claims of the '211 patent, because—per Paragraphs 16-21 *supra*—it is manifest that optical receiver systems incorporating Acacia's Accused Instrumentalities practice, during normal use, all the elements of, at least, claim 33 of the '211 patent.

47. If Acacia did ***not*** perform an analysis of whether such systems using the

Accused Instrumentalities infringe the '211 patent, after receiving knowledge of the '211 patent form the various sources listed above, then Acacia was willfully blind. Clearly, Acacia has always known that its Accused Instrumentalities perform dual-polarization communication using an XPIC. Once Acacia learned that multiple other companies had been sued under the '211 patent for selling dual-polarization optical equipment using an XPIC, any reasonable party in Acacia's position would have analyzed its own products that perform dual-polarization communication using an XPIC, to determine whether systems using those products infringe the '211 patent. In the unlikely event that Acacia chose not to perform such an analysis, then that constitutes willful blindness, which is an equally-culpable mental state.

48. In view of the foregoing, at all relevant times, Acacia has known about the existence and relevance of the '211 patent, and has known that optical receiver systems incorporating the Accused Instrumentalities, during normal use, infringe the Asserted Claims.

49. On information and belief, when Acacia sold the Accused Instrumentalities to U.S. customers, and/or provided service, maintenance, technical support, or other active assistance to such customers, it did so with the specific intent to encourage the customers to perform acts constituting direct infringement of the '211 Patent. This is evidenced by Paragraphs 39-48 *supra*, which show that Acacia was aware of the existence and relevance of the '211 patent at all relevant times. Because Acacia was aware of the '211 patent's relevance and existence, it always knew that its customers' use of the Accused Instrumentalities would constitute infringement of that patent. Acacia's decision to continue marketing the Accused Instrumentalities to U.S. customers, despite knowing that such customers' normal use would constitute direct infringement, evidences that Acacia had a specific intent to encourage direct infringement of the '211 patent by its customers.

50. Therefore, Acacia has unlawfully induced infringement of the '211 Patent, in violation of 35 U.S.C. § 271(b).

COUNT III – CONTRIBUTORY INFRINGEMENT (35 U.S.C. § 271(c))

51. Plaintiff repeats and realleges each and every allegation contained in Paragraphs 1-50 *supra*, as if fully set forth herein.

52. Acacia has committed contributory infringement of the Asserted Claims of the '211 Patent, in violation of 35 U.S.C. § 271(c).

53. Acacia has committed contributory infringement by selling, offering to sell and/or importing into the United States the Accused Instrumentalities. As shown in Paragraphs 16-21 *supra,* the Accused Instrumentalities constitute or contain a "DSP ASIC" which performs cross-polarization interference mitigation on polarization-multiplexed optical signals. A dual-polarization optical system that contains the "DSP ASIC" practices all the elements of, *inter alia*, claim 33.

54. The DSP ASIC practices a material part of the Asserted Claims, because it performs one of the key inventive functions of the '211 Patent – i.e., it mitigates the effects of cross-polarization interference, using matrix operations, to reconstruct the original polarization-division-multiplexed signals.

55. As shown in Paragraphs 16-21 *supra*, the Accused Instrumentalities also constitute or contain a "Silicon PIC," which receives dual-polarization optical signals and converts them to electrical signals. A dual-polarization optical system that contains the "Silicon PIC" practices all the elements of, *inter alia*, claim 33.

56. Moreover, Acacia's full modules that include the DSP ASIC and Silicon PIC (i.e., CFP-DCO, CFP2-DCO, CFP2-ACO, OSFP, QSFP-DD, AC400, and AC1200) practice a material part of the Asserted Claims.

57. During the Relevant Time Period, Acacia had actual knowledge, or was willfully blind, that these components of the Accused Instrumentalities (i.e., the DSP ASIC, Silicon PIC, and Modules) were especially made or adapted for use in a system that infringes the Asserted Claims of the '211 Patent. As shown in Paragraphs 39-48 *supra*, Acacia knew, or was willfully blind, that the Accused Instrumentalities are configured to infringe the '211 Patent upon use in such systems. For the reasons set

forth in Paragraphs 39-48, and on information and belief, Acacia knew, or was willfully blind, that normal use of the Accused Instrumentalities infringes the Asserted Claims. Despite that knowledge (or willful blindness), Acacia actively sold the Accused Instrumentalities in the United States, knowing their customers would use those devices in the United States, and knowing (or being willfully blind) that such use would result in direct infringement of the Asserted Claims.

58. The components of the Accused Instrumentalities that are configured to practice elements of the Asserted Claims (i.e., DSP ASIC, Silicon PIC, and Modules) are not staple articles of commerce, and—as configured—are not capable of substantial noninfringing use. To the contrary, these components, as configured, are ***especially adapted*** to perform the claimed cross-polarization interference mitigation methods, during normal use. *Id.* On information and belief, the ***only mode of operation*** of the Accused Instrumentalities is as part of an infringing dual-polarization communication system. Thus, the Accused Instrumentalities have no substantial non-infringing uses.

59. Accordingly, Defendants have unlawfully contributed to infringement of the '211 Patent, in violation of 35 U.S.C. § 271(c).

REMEDIES, ENHANCED DAMAGES, EXCEPTIONAL CASE

60. Plaintiff repeats and realleges each and every allegation contained in Paragraphs 1-59 *supra*, as if fully set forth herein.

61. Acacia's direct infringement (Count I), induced infringement (Count II) and contributory infringement (Count III) of the '211 patent has caused, and will continue to cause, significant damage to Core. As a result, Core is entitled to an award of damages adequate to compensate it for Acacia's infringement, but in no event less than a reasonable royalty pursuant to 35 U.S.C. § 284. Core is also entitled to recover prejudgment interest, post-judgment interest, and costs.

62. For at least the reasons set forth in Paragraphs 39-48 *supra*, prior to the expiration of the '211 Patent, Acacia knew (or was willfully blind) that the Accused

Instrumentalities are configured to be used in optical systems that infringe the Asserted Claims of the '211 Patent during normal use. Despite this known, objectively-high likelihood that its actions constituted direct and indirect infringement, Acacia continued to infringe the '211 patent, up to the expiration date of the patent. Accordingly, Acacia's infringement has been (and is) willful.

63. In addition to being willful, Acacia's conduct has been egregious.

64. As set forth in Paragraphs 39-48 *supra*, despite knowing of (or being willfully blind to) its infringement, Acacia continued to infringe, on a large scale, up to the very date when the '211 patent expired. Acacia is a large company, with over $500 million in annual revenue.[1] Meanwhile, Plaintiff is a small company, owned by an individual inventor. On information and belief, Acacia persisted in its willful infringement, at least in part, because it believed it could use its superior resources to overwhelm Plaintiff in litigation. If proven, this would constitute "egregious" conduct, warranting enhanced damages.

65. Moreover, the validity of the '211 patent has been thrice confirmed by the Patent Trial and Appeal Board ("PTAB"), in: (i) IPR2016-01618, filed by Fujitsu Network Communications, Inc.; (ii) IPR2018-01259, filed by Infinera Corporation; and (iii) IPR2020-01664, filed by Nokia and Juniper. In all three *Inter Partes* Review proceedings, the Petitioners—who were defendants in litigation—cited numerous prior art references, to attempt to establish that claims of the '211 patent, including the Asserted Claims, were invalid. Yet, in all three cases, the PTAB ***denied*** institution, finding that the Petitioners had failed to establish a "reasonable likelihood" that ***any*** claim of the '211 patent was invalid. *See* Ex. 28 (decision denying review in IPR2016-01618); Ex. 29 (decision denying review in IPR2018-01259); Ex. 30 (decision denying review in IPR2020-01664). Because the PTAB has

[1] *See* https://www.lightreading.com/opticalip/dci/acacia-reports-revenue-profit-growth-as-it-scraps-with-cisco/d/d-id/766560.

already rejected three extensive invalidity challenges to the '211 patent, Acacia cannot reasonably believe that it has a viable invalidity defense. Acacia's decision to persist in known, clearly-infringing conduct, despite the lack of any viable invalidity defense, is further evidence of "egregiousness."

66. For at least the foregoing reasons, Acacia's conduct has been willful and egregious. Accordingly, under 35 U.S.C. § 284, the Court should enhance Core's damages in this case by up to three times the amount found or assessed.

67. For at least the foregoing reasons, this case is an "exceptional" case within the meaning of 35 U.S.C. § 285. Accordingly, Core is entitled to an award of attorneys' fees and costs, and the Court should award such fees and costs.

PRAYER FOR RELIEF

WHEREFORE, Core prays for relief as follows:

1. That judgment be entered in favor of Core, and against Acacia;

2. That Core be awarded damages adequate to compensate it for Acacia's infringement of the Asserted Claims of the '211 Patent, in an amount to be determined at trial, as well as interest thereon;

3. That Core be awarded the costs of suit;

4. That Acacia's infringement be declared willful and egregious;

5. That the Court increase Core's damages up to three times the amount assessed under 35 U.S.C. § 284;

6. That the Court declare this an exceptional case under 35 U.S.C. § 285, and award Core its attorneys' fees and costs incurred in this action; and

7. That the Court grant such further relief as it deems just and proper.

JURY TRIAL DEMAND

Core demands a jury trial on all issues so triable.

DATED: September 8, 2021

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