87531798

TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

ETAS ID: TM470072

NATURE OF CONVEYANCE: SECURITY INTEREST

CONVEYING PARTY DATA

Name	Formerly	Execution Date	Entity Type
ELENION TECHNOLOGIES CORPORATION		03/30/2018	Corporation: DELAWARE

RECEIVING PARTY DATA

Name:	EASTWARD FUND MANAGEMENT, LLC
Street Address:	432 CHERRY STREET
City:	WEST NEWTON
State/Country:	MASSACHUSETTS
Postal Code:	02465
Entity Type:	Limited Liability Company: DELAWARE

PROPERTY NUMBERS Total: 3

Property Type	Number	Word Mark
Serial Number:	87531798	CSTAR
Serial Number:	87260014	E
Serial Number:	87196054	ELENION

CORRESPONDENCE DATA

Fax Number: 8585506420

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 858-550-6433

Email: jmfitzpatrick@cooley.com JENNIFER FITZPATRICK **Correspondent Name:**

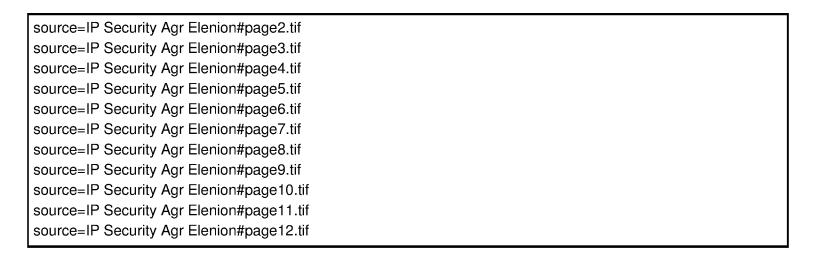
C/O COOLEY LLP Address Line 1: Address Line 2: 4401 EASTGATE MALL

Address Line 4: SAN DIEGO, CALIFORNIA 92121

ATTORNEY DOCKET NUMBER:	318251-102
NAME OF SUBMITTER:	JENNIFER FITZPATRICK
SIGNATURE:	/JENNIFER FITZPATRICK/
DATE SIGNED:	04/16/2018

Total Attachments: 12

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INTELLECTUAL PROPERTY SECURITY AGREEMENT

THIS INTELLECTUAL PROPERTY SECURITY AGREEMENT ("Agreement") is entered into as of March 30, 2018 by and between EASTWARD FUND MANAGEMENT, LLC ("Secured Party"), and ELENION TECHNOLOGIES CORPORATION, a Delaware corporation ("Grantor").

RECITALS

- A. Secured Party has agreed to make certain advances of money and to extend certain financial accommodation to Grantor (the "Loans") in the amounts and manner set forth in that certain Master Lease Agreement No. 665 by and between Secured Party, Grantor and Grantor's subsidiary Elenion Technologies, LLC dated as of the date hereof (as the same may be amended, modified or supplemented from time to time, the "Loan Agreement"; capitalized terms used herein are used as defined in the Loan Agreement). Secured Party is willing to make and maintain the Loans to Grantor, but only upon the condition, among others, that Grantor shall grant to Secured Party a security interest in certain Copyrights, Trademarks, Patents, and Mask Works (as each term is described below) to secure the obligations of Grantor under the Loan Agreement.
- B. Pursuant to the terms of the Loan Agreement, Grantor has granted to Secured Party a security interest in all of Grantor's right, title and interest, whether presently existing or hereafter acquired, in, to and under all of the Collateral.
- NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, and intending to be legally bound, as collateral security for the prompt and complete payment when due of its obligations under the Loan Agreement, Grantor hereby represents, warrants, covenants and agrees as follows:

AGREEMENT

- 1. <u>Grant of Security Interest</u>. To secure its obligations under the Loan Agreement, Grantor grants and pledges to Secured Party a security interest in all of Grantor's right, title and interest in, to and under its intellectual property (all of which shall collectively be called the "**Intellectual Property Collateral**"), including, without limitation, the following:
- (a) Any and all copyright rights, copyright applications, copyright registrations and like protections in each work or authorship and derivative work thereof, whether published or unpublished and whether or not the same also constitutes a trade secret, now or hereafter existing, created, acquired or held, including without limitation those set forth on <u>Exhibit A</u> attached hereto (collectively, the "**Copyrights**");
- (b) Any and all trade secrets, and any and all intellectual property rights in computer software and computer software products now or hereafter existing, created, acquired or held:
- (c) Any and all design rights that may be available to Grantor now or hereafter existing, created, acquired or held;

- (d) All patents, patent applications and like protections including, without limitation, improvements, divisions, continuations, renewals, reissues, extensions and continuations-in-part of the same, including without limitation the patents and patent applications set forth on Exhibit B attached hereto and any patents and patent applications claiming the priority benefit of the patents and patent applications set forth on Exhibit B attached hereto (collectively, the "Patents");
- (e) Any trademark and servicemark rights, whether registered or not, applications to register and registrations of the same and like protections (other than any application for registration of a trademark filed with the United States Patent and Trademark Office ("PTO") on an intent to use basis until such time (if any) as a statement of use or amendment to allege use is accepted by the PTO), and the entire goodwill of the business of Grantor connected with and symbolized by such trademarks, including without limitation those set forth on Exhibit C attached hereto (collectively, the "Trademarks");
- (f) All mask works or similar rights available for the protection of semiconductor chips, now owned or hereafter acquired, including, without limitation those set forth on Exhibit D attached hereto (collectively, the "Mask Works");
- (g) Any and all claims for damages by way of past, present and future infringements of any of the rights included above, with the right, but not the obligation, to sue for and collect such damages for said use or infringement of the intellectual property rights identified above:
- (h) All licenses or other rights to use any of the Copyrights, Patents, Trademarks, or Mask Works and all license fees and royalties arising from such use to the extent permitted by such license or rights;
- (i) All amendments, extensions, renewals and extensions of any of the Copyrights, Trademarks, Patents, or Mask Works; and
- (j) All proceeds and products of the foregoing, including without limitation all payments under insurance or any indemnity or warranty payable in respect of any of the foregoing.
- 2. <u>Recordation</u>. Grantor authorizes the Commissioner for Patents, the Commissioner for Trademarks and the Register of Copyrights and any other government officials to record and register this Agreement upon request by Secured Party.
- 3. <u>Authorization</u>. Grantor hereby authorizes Secured Party to (a) modify this Agreement unilaterally by amending the exhibits to this Agreement to include any Intellectual Property Collateral which Grantor obtains subsequent to the date of this Agreement, and (b) file a duplicate original of this Agreement containing amended exhibits reflecting such new Intellectual Property Collateral.
- 4. <u>Loan Documents</u>. This Agreement has been entered into pursuant to and in conjunction with the Loan Agreement, which is hereby incorporated by reference. The provisions of the Loan Agreement shall supersede and control over any conflicting or inconsistent provision herein. The rights and remedies of Secured Party with respect to the Intellectual Property

Collateral are as provided by the Loan Agreement and related documents, and nothing in this Agreement shall be deemed to limit such rights and remedies.

- 5. <u>Execution in Counterparts</u>. This Agreement may be executed in counterparts (and by different parties hereto in different counterparts), each of which shall constitute an original, but all of which when taken together shall constitute a single contract. Delivery of an executed counterpart of a signature page to this Agreement by facsimile or in electronic (i.e., "pdf" or "tif" format) shall be effective as delivery of a manually executed counterpart of this Agreement.
- 6. <u>Successors and Assigns</u>. This Agreement will be binding on and shall inure to the benefit of the parties hereto and their respective successors and assigns.
- 7. Governing Law. This Agreement and any claim, controversy, dispute or cause of action (whether in contract or tort or otherwise) based upon, arising out of or relating to this Agreement and the transactions contemplated hereby and thereby shall be governed by, and construed in accordance with, the laws of the United States and the State of Delaware, without giving effect to any choice or conflict of law provision or rule (whether of the State of Delaware or any other jurisdiction).

[Signature page follows.]

IN WITNESS WHEREOF, the parties have caused this Intellectual Property Security Agreement to be duly executed by its officers thereunto duly authorized as of the first date written above.

GR	AN	TO	R:
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ELENION TECHNOLOGIES CORPORATION

By:

Name: //LARRY SCHWEEN

Title: Vc

SECURED PARTY:

EASTWARD FUND MANAGEMENT, LLC

By:

Name: Dennis P. Cameron Title: Authorized Person

IN WITNESS WHEREOF, the parties have caused this Intellectual Property Security Agreement to be duly executed by its officers thereunto duly authorized as of the first date written above.

GRANTOR:
ELENION TECHNOLOGIES CORPORATION
Ву:
Name: Title:
SECURED PARTY:
EASTWARD FUND MANAGEMENT, LLC
Ω
By: Alex Film
Name: Dennis P. Cameron
Title: Authorized Person

EXHIBIT .	A
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Copyrights

None.

EXHIBIT B

Patents

See attached.

Country	Registration / Application Number	Registration / Application Date	Description
US	14/060,058	2013/10/22	ULTRA-RESPONSIVE PHASE SHIFTERS FOR DEPLETION MODE SILICON MODULATORS
US	14/840,409	2015/08/31	ULTRA-RESPONSIVE PHASE SHIFTERS FOR DEPLETION MODE SILICON MODULATORS
US	15/481,669	2017/04/07	ULTRA-RESPONSIVE PHASE SHIFTERS FOR DEPLETION MODE SILICON MODULATORS
US	15/876,856	2018/01/22	ULTRA-RESPONSIVE PHASE SHIFTERS FOR DEPLETION MODE SILICON MODULATORS
US	15/876,623	2018/01/22	OPTICAL MODULATOR
US	14/514,771	2014/10/15	OPERATION AND STABILIZATION OF MOD-MUX WDM TRANSMITTERS BASED ON SILICON MICRORING
US	15/217,152	2016/07/22	OPERATION AND STABILIZATION OF MOD-MUX WDM TRANSMITTERS BASED ON SILICON MICRORINGS
US	15/916,557	2018/03/09	OPERATION AND STABILIZATION OF MOD-MUX WDM TRANSMITTERS BASED ON SILICON MICRORINGS
US	14/618,989	2015/02/10	DISTRIBUTED TRAVELING-WAVE MACH-ZEHNDER MODULATOR DRIVER
US	15/234,359	2016/08/11	DISTRIBUTED TRAVELING-WAVE MACH-ZEHNDER MODULATOR DRIVER
US	15/830,351	2017/12/04	DISTRIBUTED TRAVELING-WAVE MACH-ZEHNDER MODULATOR DRIVER
US	14/644,122	2015/03/10	GERMANIUM METAL-CONTACT-FREE NEAR-IR PHOTODETECTOR
US	15/231,822	2016/08/09	GERMANIUM METAL-CONTACT-FREE NEAR-IR PHOTODETECTOR
US	15/377,294	2016/12/13	GERMANIUM METAL-CONTACT-FREE NEAR-IR PHOTODETECTOR
US	15/724,458	2017/10/04	GERMANIUM METAL-CONTACT-FREE NEAR-IR PHOTODETECTOR
US	14/879,149 15/347,202	2015/10/09 2016/11/09	OPTICAL MODULATOR HAVING A PLURALITY OF MODULATOR SEGMENTS OPTICAL MODULATOR HAVING A PLURALITY OF MODULATOR SEGMENTS
US	15/864,188	2018/01/08	OPTICAL MODULATOR HAVING A PLURALITY OF MODULATOR SEGMENTS OPTICAL MODULATOR HAVING A PLURALITY OF MODULATOR SEGMENTS
US	14/924,172	2015/10/27	PHOTONIC INTERFACE FOR ELECTRONIC CIRCUIT
US	15/296,709	2015/10/27	PHOTONIC INTERFACE FOR ELECTRONIC CIRCUIT
US	14/931,076	2015/11/03	PHOTONIC INTEGRATED CIRCUIT INCORPORATING A BANDGAP TEMPERATURE SENSOR
US	14/549,130	2014/11/20	Sagnac Loop Mirror Based Laser Cavity on Silicon Photonics Platform
US	14/634,699	2015/02/27	Quantum dot SOA-silicon external cavity multi-wavelength laser
US	15/237,833	2016/08/16	Quantum dot SOA-silicon external cavity multi-wavelength laser
US	15/802,812	2017/11/03	Quantum dot SOA-silicon external cavity multi-wavelength laser
US	15/811,937	2017/11/14	SEMINCONDUCTOR LASER
US	14/093,263	2013/11/29	A COMPACT AND LOW LOSS Y-JUNCTION FOR SUBMICRON SILICON WAVEGUIDE
US	15/048,107	2016/02/19	INTEGRATED POLARIZATION SPLITTER AND ROTATOR
US	15/840,500	2017/12/13	INTEGRATED POLARIZATION SPLITTER AND ROTATOR
US	14/818,060	2015/08/04	LATERAL GE/SI AVALANCHE PHOTODETECTOR
US	15/664,856	2017/07/31	LATERAL GE/SI AVALANCHE PHOTODETECTOR
US	15/659,220	2017/07/25	ULTRA-COMPACT INTEGRATED 90 DEGREE OPTICAL HYBRID
US	14/754,105	2015/06/29	INTEGRATED SILICON-ON-INSULATOR BENT TAPER AND POLARIZATION ROTATOR
US	15/429,677	2017/02/10	INTEGRATED SILICON-ON-INSULATOR BENT TAPER AND POLARIZATION ROTATOR
US	15/812,195	2017/11/14	INTEGRATED SILICON-ON-INSULATOR BENT TAPER AND POLARIZATION ROTATOR
US	14/988,829	2016/01/06	BENT TAPER AND POLARIZATION ROTATOR
US	15/812,441 14/754,306	2017/11/14 2015/06/29	BENT TAPER AND POLARIZATION ROTATOR
US	14/989,850	2015/06/29	AN OPTIMIZED 2x2 3dB MULTI-MODE INTERFERENCE COUPLER A MULTI-MODE INTERFERENCE COUPLER
US	15/379,695	2016/01/07	A MULTI-MODE INTERFERENCE COUPLER
US	15/651,454	2017/07/17	A MULTI-MODE INTERFERENCE COUPLER
US	15/708,578	2017/09/19	Multi-mode interface coupler
US	14/860,537	2015/09/21	TEST SYSTEMS AND METHODS FOR CHIPS IN WAFER SCALE PHOTONIC SYSTEMS
US	14/830.046	2015/08/19	BACK END OF LINE PROCESS INTEGRATED OPTICAL DEVICE FABRICATION
US	15/826,897	2017/11/30	BACK END OF LINE PROCESS INTEGRATED OPTICAL DEVICE FABRICATION
US	14/788,608	2015/06/30	LOW LOSS HIGH EXTINCTION RATIO ON-CHIP POLARIZER
US	14/944,562	2015/11/18	INTEGRATED ON-CHIP POLARIZER
US	15/659,049	2017/07/25	INTEGRATED ON-CHIP POLARIZER
US	14/931,875	2015/11/04	DIFFERENTIAL PHASE BIASING MODULATOR APPARATUS AND METHOD
US	14/794,889	2015/07/09	TRANSMITTER OPTICAL SIGNAL TO NOISE RATIO IMPROVEMENT THROUGH RECEIVER AMPLIFICATION IN SINGL LASER COHERENT SYSTEMS
US	15/405,516	2017/01/13	TRANSMITTER OPTICAL SIGNAL TO NOISE RATIO IMPROVEMENT THROUGH RECEIVER AMPLIFICATION IN SINGL LASER COHERENT SYSTEMS
US	14/798,780	2015/07/14	Edge Coupler
US	15/418,246	2017/01/27	Edge Coupler
US	15/685,765	2017/08/24	Edge Coupler
US	14/931,796	2015/11/03	Optical delay lines for electrical skew precompensation
US	15/087,278	2016/03/31	OPTICALLY ALIGNED HYBRID SEMICONDUCTOR DEVICE AND METHOD
US	15/783,263	2017/10/13	OPTICALLY ALIGNED HYBRID SEMICONDUCTOR DEVICE AND METHOD
US	14/858,321	2015/09/18	OPTICAL LINK ARCHITECTURE BASED ON WIRELINE EQUALIZATION TECHNIQUES
US	15/488,199	2017/04/14	OPTICAL LINK ARCHITECTURE BASED ON WIRELINE EQUALIZATION TECHNIQUES
US	15/916,448	2018/03/09	OPTICAL LINK ARCHITECTURE BASED ON WIRELINE EQUALIZATION TECHNIQUES
US	14/864,760	2015/09/24	PHOTODETECTOR WITH INTEGRATED TEMPERATURE CONTROL ELEMENT
US	15/840,026	2017/12/13	PHOTODETECTOR WITH INTEGRATED TEMPERATURE CONTROL ELEMENT FORMED AT LEAST IN PART IN A SEMICONDUCTOR LAYER

US 13-74-20-53 2017-DU28 CO-TERRO FORTION ANNED DELANGET DELANGET PARKS DELANGET AND STOTEM US 14-78-9-5-29 2015-11/19 OFFICE, DUAR, RESONATION MODILLATION STOTEM, DELINE AND STOTEM US 15-70-2-885 2017-70/14 THEREOR THEREOR US 15-70-2-885 2017-70/14 DISC CONTROL OF OTHER MODILLATION STOTEM AND PRICE, DUAR RESONATION MODILLATION STOTEM AND PRICE, DUAR PRICE, DUAR RESONATION MODILLATION STOTEM AND PRICE, DUAR PRICE	US	14/856,909	2015/09/17	COHERENT OPTICAL PAIRED CHANNEL TRANSCEIVER AND SYSTEM
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US	US	14/963,842	2015/12/09	SHIELDED PHOTONIC INTEGRATED CIRCUIT
US	US	15/659,880	2017/07/26	SHIELDED PHOTONIC INTEGRATED CIRCUIT
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PCT	PCT/US2016/062714		OPTICAL DUAL RESONATOR MODULATION SYSTEM AND METHOD, AND OPTICAL DUAL RESONATOR MODULATC	
		2016/11/18	THEREFOR	
PCT	PCT/US2017012589	2017/01/06	Integrated On-Chip Polarizer	
PCT	PCT/US2017/012834	2017/01/11	Optical Fiber Alignment Device	
PCT	PCT/US2016/052452	2016/09/18	METHODS FOR DESIGNING PHOTONIC DEVICES	
SG	11201509355S	2015/11/13	ULTRA-RESPONSIVE PHASE SHIFTERS FOR DEPLETION MODE SILICON MODULATORS	
TW	104127359	2015/08/21	Transceivers for Signal Switching Architecture	
TW	104127359	2015/10/26	PHOTONIC INTERFACE FOR ELECTRONIC CIRCUIT	
TW	105130242	2016/09/19	OPTICAL LINK ARCHITECTURE BASED ON WIRELINE EQUALIZATION TECHNIQUES	
TW	105132662	2016/10/07	Heat Sink for A Semiconductor chip device	

EXHIBIT C

Trademarks

<u>Description</u>	Registration/ Application Number	Registration/ Application <u>Date</u>
CSTAR (Canada)	1848086	07/18/2017
CSTAR (China)	25808982	08/11/2017
CSTAR (Europe)	017004847	12/05/2017
CSTAR (U.S.)	87531798	07/18/2017
E DESIGN (Canada)	1813131	12/07/2016
E DESIGN (China)	23971264	05/05/2017
3		
E DESIGN (Europe)	016676223	09/19/2017
E DESIGN (U.S.)	87260014	12/07/2016
ELENION (Canada)	1806128	10/24/2016
ELENION (China)	23205233	03/20/2017
ELENION (Europe)	016462624	03/14/2017
ELENION (U.S.)	87196054	10/07/2016

EXHIBIT	D
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None.

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RECORDED: 04/16/2018