

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT5368078

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT	
<b>NATURE OF CONVEYANCE:</b>	RELEASE OF SECURITY INTEREST	
<b>CONVEYING PARTY DATA</b>		
<b>Name</b>		<b>Execution Date</b>
EASTWARD FUND MANAGEMENT, LLC		02/08/2019
<b>RECEIVING PARTY DATA</b>		
<b>Name:</b>	ELENION TECHNOLOGIES CORPORATION	
<b>Street Address:</b>	171 MADISON AVENUE, SUITE 1100	
<b>City:</b>	NEW YORK	
<b>State/Country:</b>	NEW YORK	
<b>Postal Code:</b>	10016	
<b>PROPERTY NUMBERS Total: 91</b>		
<b>Property Type</b>	<b>Number</b>	
Patent Number:	9158138	
Patent Number:	9059559	
Patent Number:	9437759	
Patent Number:	9470844	
Patent Number:	9755096	
Patent Number:	9596033	
Patent Number:	9871153	
Patent Number:	9500821	
Application Number:	14931875	
Patent Number:	9739938	
Patent Number:	9739947	
Patent Number:	9817197	
Patent Number:	9941990	
Patent Number:	9831635	
Patent Number:	10171176	
Patent Number:	9798086	
Application Number:	15427185	
Application Number:	15459066	
Patent Number:	9910302	
Patent Number:	10168596	

PATENT

Property Type	Number
Application Number:	15659049
Patent Number:	10134938
Patent Number:	10012795
Patent Number:	10043927
Application Number:	15802812
Application Number:	15812195
Application Number:	15826165
Application Number:	15840026
Patent Number:	10120212
Application Number:	15916557
Patent Number:	9766408
Patent Number:	9217829
Patent Number:	9559779
Patent Number:	9606293
Patent Number:	9571200
Patent Number:	9851506
Patent Number:	9654225
Patent Number:	9543226
Patent Number:	9513437
Patent Number:	9746609
Patent Number:	9829632
Patent Number:	9638859
Patent Number:	9806806
Patent Number:	9553222
Patent Number:	9989715
Patent Number:	9859186
Application Number:	15381388
Patent Number:	9924247
Patent Number:	9841561
Application Number:	15460335
Patent Number:	10133014
Patent Number:	10048443
Patent Number:	10126498
Patent Number:	10156678
Application Number:	15724365
Application Number:	15725450
Application Number:	15810671
Application Number:	15812441

Property Type	Number
Patent Number:	10101533
Application Number:	15840500
Patent Number:	10082686
Patent Number:	9425919
Patent Number:	9450379
Patent Number:	9557486
Patent Number:	9588298
Patent Number:	9638942
Application Number:	14860537
Patent Number:	9519162
Patent Number:	10110318
Patent Number:	9787405
Patent Number:	9810840
Patent Number:	9874696
Patent Number:	9806822
Patent Number:	9853738
Patent Number:	9874767
Patent Number:	9812598
Patent Number:	10135536
Patent Number:	9946020
Patent Number:	9851503
Patent Number:	10025045
Patent Number:	9941976
Patent Number:	10031291
Application Number:	15659880
Patent Number:	10044443
Patent Number:	10097279
Application Number:	15783263
Application Number:	15811937
Application Number:	15825266
Patent Number:	10084545
Application Number:	15864188
Application Number:	15916448

#### CORRESPONDENCE DATA

Fax Number:

*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: 6506483802

<b>Email:</b>	PATTY@PATTYCHENG.COM
<b>Correspondent Name:</b>	PATTY CHENG
<b>Address Line 1:</b>	2625 MIDDLEFIELD RD., #215
<b>Address Line 4:</b>	PALO ALTO, CALIFORNIA 94306

<b>NAME OF SUBMITTER:</b>	PATTY CHENG
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<b>SIGNATURE:</b>	/s/ Patty Cheng
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<b>DATE SIGNED:</b>	02/08/2019
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**Total Attachments: 6**

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## RELEASE OF SECURITY INTEREST

This Release of Security Interest is made as of February 8, 2019, by Eastward Fund Management, LLC, a Delaware limited liability company ("Lender"), in favor of Elenion Technologies Corporation, a Delaware corporation ("Company"), with its principal place of business located at 171 Madison Avenue, Suite 1100, New York, New York 10016.

### Recitals

WHEREAS under that certain Intellectual Property Security Agreement dated as of March 30, 2018 (the "Security Agreement"), Company granted to Lender a security interest in all of the Company's right, title and interest in and to the intellectual property of Company, including without limitation, the Intellectual Property Collateral (as that term is defined in the Security Agreement, including all items of intellectual property and related rights listed in the Security Agreement), and specifically the patent and trademark items listed on Exhibits B and C attached hereto, which was recorded with the US Patent and Trademark Office on April 16, 2018 at Reel Number 045959, Frame Number 0001 and at Reel Number 006314, Frame Number 0552, respectively (all such intellectual property collectively, the "Intellectual Property").

WHEREAS Company has no outstanding obligations to Lender, Lender agrees to release and relinquish and does hereby release and relinquish its security interest in the Intellectual Property.

### Agreement

NOW THEREFORE, Lender hereby terminates and agrees that the Security Agreement is terminated and Lender terminates, relinquishes and releases its security interest in the Intellectual Property and reassigns to Company, without warranty or recourse, all interest of Lender in the Intellectual Property. Lender further agrees to execute and deliver to Company any and all further documents or instruments and do any and all further acts which Company reasonably requests in order to confirm this release and Company's right, title and interest in and to the Intellectual Property.

LENDER:

Eastward Fund Management, LLC

By: 

Name: Dennis P. Cameron

Title: Authorized Person

**EXHIBIT B**

**PATENTS**

**[see attached]**

**PATENT**

**REEL: 048290 FRAME: 0075**





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	ULTRA-RESPONSIVE PHASE SHIFTERS FOR DEPLETION MODE SILICON MODULATORS
US	14/514,771	2014/10/15	OPTICAL MODULATOR
US	15/217,152	2016/07/22	OPERATION AND STABILIZATION OF MOD-MUX WDM TRANSMITTERS BASED ON SILICON MICRORING
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	OPERATION AND STABILIZATION OF MOD-MUX WDM TRANSMITTERS BASED ON SILICON MICRORINGS
US	15/234,359	2015/08/11	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	DISTRIBUTED TRAVELING-WAVE MACH-ZEHNDER MODULATOR DRIVER
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	2015/10/09	GERMANIUM METAL-CONTACT-FREE NEAR-IR PHOTODETECTOR
US	15/347,202	2016/11/09	OPTICAL MODULATOR HAVING A PLURALITY OF MODULATOR SEGMENTS
US	15/864,188	2018/01/08	OPTICAL MODULATOR HAVING A PLURALITY OF MODULATOR SEGMENTS
US	14/924,172	2015/10/27	OPTICAL MODULATOR HAVING A PLURALITY OF MODULATOR SEGMENTS
US	15/296,709	2016/10/18	PHOTONIC INTERFACE FOR ELECTRONIC CIRCUIT
US	14/931,076	2015/11/03	PHOTONIC INTERFACE FOR ELECTRONIC CIRCUIT
US	14/549,130	2014/11/20	PHOTONIC INTEGRATED CIRCUIT INCORPORATING A BANDGAP TEMPERATURE SENSOR
US	14/634,699	2015/02/27	Sagnac Loop Mirror Based Laser Cavity on Silicon Photonics Platform
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	Quantum dot SOA-silicon external cavity multi-wavelength laser
US	14/093,263	2013/11/29	SEMINCONDUCTOR LASER
US	15/048,107	2016/02/19	A COMPACT AND LOW LOSS Y-JUNCTION FOR SUBMICRON SILICON WAVEGUIDE
US	15/840,500	2017/12/13	INTEGRATED POLARIZATION SPLITTER AND ROTATOR
US	14/818,060	2015/08/04	INTEGRATED POLARIZATION SPLITTER AND ROTATOR
US	15/664,856	2017/07/31	LATERAL GE/SI AVALANCHE PHOTODETECTOR
US	15/659,220	2017/07/25	LATERAL GE/SI AVALANCHE PHOTODETECTOR
US	14/754,105	2015/06/29	ULTRA-COMPACT INTEGRATED 90 DEGREE OPTICAL HYBRID
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	INTEGRATED SILICON-ON-INSULATOR BENT TAPER AND POLARIZATION ROTATOR
US	15/812,441	2017/11/14	BENT TAPER AND POLARIZATION ROTATOR
US	14/754,306	2015/06/29	BENT TAPER AND POLARIZATION ROTATOR
US	14/989,850	2016/01/07	AN OPTIMIZED 2x2 3dB MULTI-MODE INTERFERENCE COUPLER
US	15/379,695	2016/12/15	A MULTI-MODE INTERFERENCE COUPLER
US	15/651,454	2017/07/17	A MULTI-MODE INTERFERENCE COUPLER
US	15/708,578	2017/09/19	A MULTI-MODE INTERFERENCE COUPLER
US	14/860,537	2015/09/21	Multi-mode interface coupler
US	14/830,046	2015/08/19	TEST SYSTEMS AND METHODS FOR CHIPS IN WAFER SCALE PHOTONIC SYSTEMS
US	15/826,897	2017/11/30	BACK END OF LINE PROCESS INTEGRATED OPTICAL DEVICE FABRICATION
US	14/788,608	2015/06/30	BACK END OF LINE PROCESS INTEGRATED OPTICAL DEVICE FABRICATION
US	14/944,562	2015/11/18	LOW LOSS HIGH EXTINCTION RATIO ON-CHIP POLARIZER
US	15/659,049	2017/07/25	INTEGRATED ON-CHIP POLARIZER
US	14/931,875	2015/11/04	INTEGRATED ON-CHIP POLARIZER
US	14/794,889	2015/07/09	DIFFERENTIAL PHASE BIASING MODULATOR APPARATUS AND METHOD
US	15/405,516	2017/01/13	TRANSMITTER OPTICAL SIGNAL TO NOISE RATIO IMPROVEMENT THROUGH RECEIVER AMPLIFICATION IN SINGLE LASER COHERENT SYSTEMS
US	14/798,780	2015/07/14	TRANSMITTER OPTICAL SIGNAL TO NOISE RATIO IMPROVEMENT THROUGH RECEIVER AMPLIFICATION IN SINGLE LASER COHERENT SYSTEMS
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	Edge Coupler
US	15/087,278	2016/03/31	Optical delay lines for electrical skew precompensation
US	15/783,263	2017/10/13	OPTICALLY ALIGNED HYBRID SEMICONDUCTOR DEVICE AND METHOD
US	14/858,321	2015/09/18	OPTICALLY ALIGNED HYBRID SEMICONDUCTOR DEVICE AND METHOD
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	OPTICAL LINK ARCHITECTURE BASED ON WIRELINE EQUALIZATION TECHNIQUES
US	15/840,026	2017/12/13	PHOTODETECTOR WITH INTEGRATED TEMPERATURE CONTROL ELEMENT
			PHOTODETECTOR WITH INTEGRATED TEMPERATURE CONTROL ELEMENT FORMED AT LEAST IN PART IN A SEMICONDUCTOR LAYER

US	14/856,909	2015/09/17	COHERENT OPTICAL PAIRED CHANNEL TRANSCEIVER AND SYSTEM
US	15/420,645	2017/01/31	COHERENT OPTICAL PAIRED CHANNEL TRANSCEIVER AND SYSTEM
US	14/945,529	2015/11/19	OPTICAL DUAL RESONATOR MODULATION SYSTEM AND METHOD, AND OPTICAL DUAL RESONATOR MODULATOR THEREFOR
US	15/704,895	2017/09/14	OPTICAL DUAL RESONATOR MODULATION SYSTEM AND METHOD, AND OPTICAL DUAL RESONATOR MODULATOR THEREFOR
US	15/381,388	2016/12/16	BIAS CONTROL OF OPTICAL MODULATORS
US	15/427,185	2017/02/08	METHODS, TEST STRUCTURES, AND TEST SYSTEMS FOR DETERMINING A SURFACE CHARACTERISTIC OF A CHIP
US	14/989,436	2016/01/06	Integrated On-Chip Polarizer
US	15/725,450	2017/10/05	Integrated On-Chip Polarizer
US	14/963,842	2015/12/09	SHIELDED PHOTONIC INTEGRATED CIRCUIT
US	15/659,880	2017/07/26	SHIELDED PHOTONIC INTEGRATED CIRCUIT
US	15/875,559	2018/01/19	PHOTONIC CHIP WITH AN INPUT WAVELENGTH FILTER
US	14/993,460	2016/01/12	Optical Fiber Alignment Device
US	15/467,061	2017/03/31	Optical Fiber Alignment Device
US	15/357,392	2016/11/21	PHASE DEMODULATION METHOD AND CIRCUIT
US	14/876,933	2015/10/07	Heat Sink for A Semiconductor chip device
US	15/370,307	2016/12/06	Heat Sink for A Semiconductor chip device
US	15/826,165	2017/11/29	Heat Sink for A Semiconductor chip device
US	15/203,939	2016/07/07	COHERENT OPTICAL RECEIVER TESTING
US	15/724,365	2017/10/04	COHERENT OPTICAL RECEIVER TESTING
US	15/203,957	2016/07/07	COHERENT OPTICAL RECEIVER TESTING
US	15/724,382	2017/10/04	COHERENT OPTICAL RECEIVER TESTING
US	15/423,843	2017/02/03	Mode Matching Y Junction
US	15/481,971	2017/04/07	CONTROLLING BACK SCATTERING IN OPTICAL WAVEGUIDE SYSTEMS
US	15/459,066	2017/03/15	Bias Control of Optical Modulators
US	15/810,671	2017/11/13	Bias Control of Optical Modulators
US	15/460,335	2017/03/16	Chip Identification System
US	15/602,657	2017/05/23	OPTICAL WAVEGUIDE MODULATOR
US	15/621,149	2017/06/13	Waveguide etch method for multi-layer optical devices
US	15/833,314	2017/12/06	DC Current cancellation scheme for an optical receiver
US	15/841,789	2017/12/14	Coherent Optical Receiver
US	15/903,835	2018/02/23	OPTICAL AMPLIFIER
US	15/658,795	2017/07/25	MULTI-MODE INTERFEROMETER COUPLER WITH CORE STRIPS
US	15/840,223	2017/12/13	METHOD AND CIRCUIT FOR ENDLESS PHASE AND POLARIZATION CONTROL
US	15/855,242	27-Dec-17	WAVELENGTH LOCKER
US	15/855,328	2017/12/27	EXTERNAL CAVITY LASER
US	15/864,714	2018/01/08	REDUCING BACK REFLECTION IN A PHOTODIODE
US	15/446,375	2017/03/01	A COMPACT AND LOW LOSS Y-JUNCTION FOR SUBMICRON SILICON WAVEGUIDE
US	15/825,266	2017/11/29	A COMPACT AND LOW LOSS Y-JUNCTION FOR SUBMICRON SILICON WAVEGUIDE
CA	2927537	2016/04/14	OPERATION AND STABILIZATION OF MOD-MUX WDM TRANSMITTERS BASED ON SILICON MICRORING
CA	2,941,586	2016/09/09	GERMANIUM METAL-CONTACT-FREE NEAR-IR PHOTODETECTOR
CA	2931399	2016/05/20	Sagnac Loop Mirror Based Laser Cavity on Silicon Photonics Platform
CA	2929624	2016/05/11	PHOTONIC-CHIP-BASED OPTICAL SPECTRUM ANALYZER
CN	201380078233.7	2016/01/14	ULTRA-RESPONSIVE PHASE SHIFTERS FOR DEPLETION MODE SILICON MODULATORS
CN	201480064178	2016/05/24	OPERATION AND STABILIZATION OF MOD-MUX WDM TRANSMITTERS BASED ON SILICON MICRORING
CN	201480073068.0	2016/07/13	Sagnac Loop Mirror Based Laser Cavity on Silicon Photonics Platform
EP	13884522.7	2015/12/14	ULTRA-RESPONSIVE PHASE SHIFTERS FOR DEPLETION MODE SILICON MODULATORS
EP	14853262.5	2016/05/13	OPERATION AND STABILIZATION OF MOD-MUX WDM TRANSMITTERS BASED ON SILICON MICRORING
EP	15803649.1	2016/09/06	GERMANIUM METAL-CONTACT-FREE NEAR-IR PHOTODETECTOR
EP	15854028.6	2017/05/23	PHOTONIC INTERFACE FOR ELECTRONIC CIRCUIT
EP	15856273.6	2017/06/02	PHOTONIC INTEGRATED CIRCUIT INCORPORATING A BANDGAP TEMPERATURE SENSOR
EP	14864248.1	2016/06/20	Sagnac Loop Mirror Based Laser Cavity on Silicon Photonics Platform
EP	16739627.4	2018/01/26	INTEGRATED POLARIZATION SPLITTER AND ROTATOR
EP	16739628.2	2018/01/26	A MULTI-MODE INTERFERENCE COUPLER
EP	16738625.9	2018/01/29	INTEGRATED ON-CHIP POLARIZER
EP	16732063.9	2018/01/03	Edgo Coupler
JP	2016-524409	2016/05/24	OPERATION AND STABILIZATION OF MOD-MUX WDM TRANSMITTERS BASED ON SILICON MICRORINGS
MY	P12015704103	2015/11/13	ULTRA-RESPONSIVE PHASE SHIFTERS FOR DEPLETION MODE SILICON MODULATORS
MY	P12016703007	2016/08/18	GERMANIUM METAL-CONTACT-FREE NEAR-IR PHOTODETECTOR
PCT	PCT/US2016/052684	2016/09/21	TEST SYSTEMS AND METHODS FOR CHIPS IN WAFER SCALE PHOTONIC SYSTEMS
PCT	PCT/US2016/052516	2016/09/19	OPTICAL LINK ARCHITECTURE BASED ON WIRELINE EQUALIZATION TECHNIQUES
PCT	PCT/US2016/053409	2016/09/23	PHOTODETECTOR WITH INTEGRATED TEMPERATURE CONTROL ELEMENT
PCT	PCT/US2016/052390	2016/09/17	COHERENT OPTICAL PAIRED CHANNEL TRANSCEIVER AND SYSTEM



PCT	PCT/US2016/062714	2016/11/18	OPTICAL DUAL RESONATOR MODULATION SYSTEM AND METHOD, AND OPTICAL DUAL RESONATOR MODULATC
PCT	PCT/US2017012589	2017/01/06	THEREFOR
PCT	PCT/US2017/012834	2017/01/11	Integrated On-Chip Polarizer
PCT	PCT/US2016/052452	2016/09/18	Optical Fiber Alignment Device
SG	112015093555	2015/11/13	METHODS FOR DESIGNING PHOTONIC DEVICES
TW	104127359	2015/08/21	ULTRA-RESPONSIVE PHASE SHIFTERS FOR DEPLETION MODE SILICON MODULATORS
TW	104127359	2015/10/26	Transceivers for Signal Switching Architecture
TW	105130242	2015/09/19	PHOTONIC INTERFACE FOR ELECTRONIC CIRCUIT
TW	105132662	2016/10/07	OPTICAL LINK ARCHITECTURE BASED ON WIRELINE EQUALIZATION TECHNIQUES
			Heat Sink for A Semiconductor chip device

**EXHIBIT C**  
**TRADEMARKS**

<u>Description</u>	<u>Registration/ Application Number</u>	<u>Registration/ Application Date</u>
CSTAR (Canada)	1848086	07/18/2017
CSTAR (China)	25808982 (Under Appeal)	08/11/2017
CSTAR (Europe)	017004847	12/05/2017
CSTAR (U.S.)	87531798 (Allowed)	07/18/2017
E DESIGN (Canada)	1813131 (Allowed)	12/07/2016
		
E DESIGN (China)	23971264	05/14/2018
		
E DESIGN (Europe)	016676223	09/19/2017
		
E DESIGN (U.S.)	87260014 (Reg. No. 5541761)	08/14/2018
		
ELENION (Canada)	1806128	10/24/2016
ELENION (China)	23205233	03/20/2017
ELENION (Europe)	016462624	03/14/2017
ELENION (U.S.)	87196054 (Reg. No. 5541649)	08/14/2018