

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT7494206

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	
CONVEYING PARTY DATA		
Name		Execution Date
IPG PHOTONICS CORPORATION		08/15/2022
RECEIVING PARTY DATA		
Name:	LUMENTUM OPERATIONS LLC	
Street Address:	1001 RIDDER PARK DRIVE	
City:	SAN JOSE	
State/Country:	CALIFORNIA	
Postal Code:	95131	
PROPERTY NUMBERS Total: 35		
Property Type	Number	
Patent Number:	8412051	
Patent Number:	8929744	
Patent Number:	9071361	
Patent Number:	9319143	
Patent Number:	9496960	
Patent Number:	9819416	
Patent Number:	10128953	
Patent Number:	9316797	
Patent Number:	9568690	
Patent Number:	9312951	
Patent Number:	9615151	
Patent Number:	9240857	
Patent Number:	9071349	
Patent Number:	8249447	
Patent Number:	8886034	
Patent Number:	8261173	
Patent Number:	8107821	
Patent Number:	8107820	
Patent Number:	8085079	
Patent Number:	7990185	

Property Type	Number
Patent Number:	7961054
Patent Number:	7852152
Patent Number:	7715731
Patent Number:	7580637
Patent Number:	7302192
Patent Number:	7286762
Patent Number:	9538687
Patent Number:	9729947
Patent Number:	10009108
Patent Number:	8139958
Application Number:	17763264
Application Number:	17763381
Application Number:	17763399
Application Number:	17781513
PCT Number:	US2021035590

CORRESPONDENCE DATA

Fax Number: (571)432-0808

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.

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NAME OF SUBMITTER:	RACHEL ALLEN
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SIGNATURE:	/Rachel Allen/
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DATE SIGNED:	08/19/2022
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Total Attachments: 10

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PATENT ASSIGNMENT

THIS PATENT ASSIGNMENT (this “Patent Assignment”) is executed as of August 15, 2022 by Lumentum Operations LLC, a Delaware corporation (“Assignee”) and IPG Photonics Corporation, a Delaware corporation (the “Assignor”).

WHEREAS, Assignor and Assignee have entered into an Asset Purchase Agreement, dated as of August 15, 2022 (the “Purchase Agreement”), pursuant to which, among other things, Assignor has agreed to assign to Assignee the Assigned Patents (as defined below).

1. Assigned Patents. The term “Assigned Patents” means the issued patents and pending patent applications set forth on Schedule A attached hereto.

2. Assignment. For good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, Assignor hereby irrevocably and perpetually conveys, transfers, novates, assigns and delivers to Assignee all of Assignor’s right, title and interest in and to (i) the Assigned Patents; (ii) all provisionals, reissues, divisionals, continuations, continuations-in-part, extensions, renewals, reexaminations, substitutions, revalidations and foreign counterparts thereof; (iii) all rights corresponding to any of the foregoing throughout the world, including the right to claim priority from any of the Assigned Patents, the right to register, prosecute and maintain any of the Assigned Patents, the right to collect royalties, the right to have patents issue in the name of Assignee, and the right to enforce, sue, claim remedies and recover damages for past, present and future infringement or other violation or impairment of any of the Assigned Patents, the same to be held and enjoyed by Assignee for its own use and enjoyment, and for the use and enjoyment of its successors, assigns and other legal representatives, as fully and entirely as the same would have been held and enjoyed by Assignor, if this assignment and sale had not been made.

3. Representations and Warranties. This Patent Assignment is executed and delivered pursuant to the Purchase Agreement, and nothing in this Patent Assignment, express or implied, is intended to or shall be construed to modify, expand or limit in any way the terms of the Purchase Agreement. Without limitation to the foregoing, the representations, warranties, disclaimers and limitations contained in the Purchase Agreement shall not be expanded, limited or superseded by this Patent Assignment but shall remain in full force and effect to the full extent provided in the Purchase Agreement.

4. Further Assurances. Assignor agrees that Assignee shall have the right to file or record this Patent Assignment with the United States Patent and Trademark Office or other such entities throughout the world, and Assignor authorizes and requests the relevant authorities to record Assignee as the assignee and owner of the Assigned Patents. Assignor shall execute and deliver to Assignee such further assignments and documents and provide such materials and information and take such other actions as requested by Assignee to register, evidence or perfect Assignee's rights under this Patent Assignment. In addition, Assignor hereby irrevocably and perpetually designates and appoints Assignee and its duly authorized officers and agents as its agents and attorneys in fact, to act for and on their behalf and stead to execute and file any such documents and to do all other lawfully permitted acts to register, evidence or perfect Assignee’s rights as the assignee and owner of the Assigned Patents with the same legal force and effect as if executed by Assignor. This includes, but is not limited to, the power to insert on this Patent

Assignment any further identification of the Assigned Patents that may be necessary to comply with the rules of the United States Patent and Trademark Office, or rules of other entities throughout the world, for recordation of this document.

5. Governing Law. This Patent Assignment shall be governed by, and construed and enforced in accordance with, the internal Laws of the State of Delaware, including its statutes of limitations, without giving effect to any choice of law or conflict of laws provision, rule, or principle (whether of the State of Delaware or any other jurisdiction) that would result in the application of the laws of any other jurisdiction.

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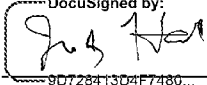
Title: SVP and CFO

PATENT
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IN WITNESS WHEREOF, Assignee has caused this Patent Assignment to be executed as of the date first written above by its duly authorized officer.

ASSIGNEE:

LUMENTUM OPERATIONS LLC

By:  9072841304F7480...
Name: Judy Hamel
Title: General Counsel and Secretary
of sole member, Lumentum Inc.

[SIGNATURE PAGE TO PATENT ASSIGNMENT - ASSIGNEE]

PATENT
REEL: 061233 FRAME: 0166

SCHEDULE A
ASSIGNED PATENTS

Title	Jurisdiction	Application Number/ Patent Number	Filing Date	Issue Date	Owner/ Assignee	Status
40G/100G Optical Transceivers with Integrated Framing and Forward Error Correction	United States of America	8,412,051	2011-02-11	2013-04-02	IPG Photonics Corporation	Registered
40G/100G/200G/400G pluggable optical transceivers with advanced functionality	United States of America	8,929,744	2013-03-05	2015-01-06	IPG Photonics Corporation	Registered
Extended Reach XFP Transceiver with Integrated Forward Error Correction	United States of America	9,071,361	2013-11-04	2015-06-30	IPG Photonics Corporation	Registered
40G/100G/200G/400G pluggable optical transceivers with advanced functionality	United States of America	9,319,143	2015-01-05	2016-04-19	IPG Photonics Corporation	Registered
40G/100G/200G/400G pluggable optical transceivers with integrated electronic dispersion compensation	United States of America	9,496,960	2015-09-15	2016-11-15	IPG Photonics Corporation	Registered
40G/100G/200G/400G pluggable optical transceivers with advanced functionality	United States of America	9,819,416	2016-11-09	2017-11-14	IPG Photonics Corporation	Registered
40G/100G/200G/400G pluggable optical transceivers with advanced functionality	United States of America	10,128,953	2017-10-11	2018-11-13	IPG Photonics Corporation	Registered
Pluggable Optical Module Latch Mechanism and Method	United States of America	9,316,797	2013-11-22	2016-04-19	IPG Photonics Corporation	Registered
Pluggable Optical Module Latch Mechanism and Method	United States of America	9,568,690	2016-03-09	2017-02-14	IPG Photonics Corporation	Registered

CONFIDENTIAL

Title	Jurisdiction	Application Number/ Patent Number	Filing Date	Issue Date	Owner/ Assignee	Status
Virtualized Optical Transport Network Systems and Methods	United States of America	9,312,951	2013-01-29	2016-04-12	IPG Photonics Corporation	Registered
Virtualized Optical Transport Network Systems and Methods	United States of America	9,615,151	2016-02-10	2017-04-04	IPG Photonics Corporation	Registered
METHOD AND FIBER-OPTIC TRANSCEIVER MODULE FOR BANDWIDTH EFFICIENT DISTORTION-TOLERANT TRANSMISSIONS FOR HIGH-BIT RATE FIBER OPTIC COMMUNICATIONS	United States of America	9,240,857	2012-07-13	2016-01-19	IPG Photonics Corporation	Registered
Optical Transceiver Performance Monitoring and Alarming Systems and Methods	United States of America	9,071,349	2013-01-29	2015-06-30	IPG Photonics Corporation	Registered
Systems and Methods for Optical Receiver Decisions Threshold Optimization	United States of America	8,249,447	2008-04-29	2012-08-21	IPG Photonics Corporation	Registered
Systems and Methods for Optical Receiver Decisions Threshold Optimization	United States of America	8,886,034	2012-07-20	2014-11-11	IPG Photonics Corporation	Registered
CALIBRATION METHOD AND CIRCUIT FOR AN ADD-COMPARE-SELECT LOOP	United States of America	8,261,173	2009-04-29	2012-09-04	IPG Photonics Corporation	Registered
Systems and Methods for Ethernet Extension and Demarcation	United States of America	8,107,821	2008-05-13	2012-01-31	IPG Photonics Corporation	Registered
Systems and Methods for the Integration of Framing, OAM&P, and forward error correction in SFP OPTICAL TRANSCEIVER DEVICES	United States of America	8,107,820	2008-05-13	2012-01-31	IPG Photonics Corporation	Registered

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Title	Jurisdiction	Application Number/ Patent Number	Filing Date	Issue Date	Owner/ Assignee	Status
SUMMING CIRCUIT FOR A FILTER	United States of America	8,085,079	2010-07-08	2011-12-27	IPG Photonics Corporation	Registered
ANALOG FINITE IMPULSE RESPONSE FILTER	United States of America	7,990,185	2008-05-12	2011-08-02	IPG Photonics Corporation	Registered
TIMING RECOVERY FOR PARTIAL-RESPONSE MAXIMUM LIKELIHOOD SEQUENCE DETECTOR	United States of America	7,961,054	2008-10-28	2011-06-14	IPG Photonics Corporation	Registered
Nth ORDER TUNABLE LOW-PASS CONTINUOUS TIME FILTER FOR FIBER OPTIC RECEIVERS	United States of America	7,852,152	2008-08-28	2010-12-14	IPG Photonics Corporation	Registered
Systems with Spread-Pulse Modulation and Nonlinear Time Domain Equalization for Fiber Optic COMMUNICATION CHANNELS	United States of America	7,715,731	2005-08-10	2010-05-11	IPG Photonics Corporation	Registered
Systems and Methods for the Integration of Framing, OAM and P, and forward error correction in pluggable optical transceiver devices	Germany	EP 2078361	2007-04-10	2018-05-30	Menara Networks, Inc.	Registered
Systems and Methods for the Integration of Framing, OAM and P, and forward error correction in pluggable optical transceiver devices	Spain	2078361	2007-04-10	2018-05-30	Menara Networks, Inc.	Registered
Systems and Methods for the Integration of Framing, OAM and P, and forward error correction in pluggable optical transceiver devices	France	2078361	2007-04-10	2018-05-30	Menara Networks, Inc.	Registered
Systems and Methods for the Integration of Framing, OAM and P, and forward error correction in pluggable optical transceiver devices	United Kingdom	2078361	2007-04-10	2018-05-30	Menara Networks, Inc.	Registered

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Title	Jurisdiction	Application Number/ Patent Number	Filing Date	Issue Date	Owner/ Assignee	Status
Systems and Methods for the Integration of Framing, OAM and P, and forward error correction in pluggable optical transceiver devices	Italy	2078361	2007-04-10	2018-05-30	Menara Networks, Inc.	Registered
Systems and Methods for the Integration of Framing, OAM and P, and forward error correction in pluggable optical transceiver devices	Netherlands	2078361	2007-04-10	2018-05-30	Menara Networks, Inc.	Registered
Systems and Methods for the Integration of Framing, OAM and P, and forward error correction in pluggable optical transceiver devices	Sweden	2078361	2007-04-10	2018-05-30	Menara Networks, Inc.	Registered
Systems and Methods for the Integration of Framing, OAM and P, and forward error correction in pluggable optical transceiver devices	United States of America	7,580,637	2006-10-13	2009-08-25	IPG Photonics Corporation	Registered
Methods of Spread-Pulse Modulation and Nonlinear Time Domain Equalization for Fiber Optic Communication Channels	United States of America	7,302,192	2005-04-28	2007-11-27	IPG Photonics Corporation	Registered
APPARATUS WITH SPREAD-PULSE MODULATION AND NONLINEAR TIME DOMAIN EQUALIZATION FOR FIBER OPTIC COMMUNICATION CHANNELS	United States of America	7,286,762	2005-08-10	2007-10-23	IPG Photonics Corporation	Registered
HIGH DENSITY RACK UNIT SYSTEMS AND METHODS	United States of America	9,538,687	2013-06-12	2017-01-03	IPG Photonics Corporation	Registered
PLUGGABLE OPTICAL TRANSCEIVER PROVIDING WAVELENGTH TUNING INFORMATION	United States of America	9,729,947	2016-01-12	2017-08-08	IPG Photonics Corporation	Registered

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Title	Jurisdiction	Application Number/ Patent Number	Filing Date	Issue Date	Owner/ Assignee	Status
COHERENT AND PULSE AMPLITUDE MODULATION IN A PLUGGABLE OPTICAL TRANSCEIVER	United States of America	10,009,108	2016-09-13	2018-06-26	IPG Photonics Corporation	Registered
FREQUENCY-DOMAIN EQUALIZATION OF THE FIBER OPTIC CHANNEL	United States of America	8,139,958	2007-07-27	2012-03-20	IPG Photonics Corporation	Registered
Photonic Device	United States of America	17/763,264	2022-03-24		IPG Photonics Corporation	Pending
Photonic Device	EPO	EP4018238	2022-03-24 2020-09-24	2022-06-29	IPG Photonics Corporation	Pending
Photonic Integrated Circuit (PIC) Package	United States of America	17/763,381	2022-03-24		IPG Photonics Corporation	Pending
Photonic Integrated Circuit (PIC) Package	EPO	EP4022371	2022-03-24	2022-07-06	IPG Photonics Corporation	Pending
High Efficiency Vertical Grating Coupler for Flip-Chip Application	United States of America	17/763,399	2022-03-24		IPG Photonics Corporation	Pending
High Efficiency Vertical Grating Coupler for Flip-Chip Application	EPO	EP4022372	2022-03-24	2022-07-06	IPG Photonics Corporation	Pending
Bidirectional Coherent Transmission	EPO	20 895 640.9	2020-12-07		IPG Photonics Corporation	Pending
System and Method for Vertically Aligning Optical Fiber to Photonic Wafers	International Patent-PCT	PCT/US21/35590	2021-06-03		IPG Photonics Corporation	Pending

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Title	Jurisdiction	Application Number/ Patent Number	Filing Date	Issue Date	Owner/ Assignee	Status
BIDIRECTIONAL SINGLE- FIBER COHERENT TRANSMISSION SYSTEM	United States of America	17/781,513	2020-12-07		IPG Photonics Corporation	Pending