

PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT3879246

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
CIENA CANADA, INC.	05/05/2016
RECEIVING PARTY DATA	
Name:	CIENA CORPORATION
Street Address:	7035 RIDGE ROAD
City:	HANOVER
State/Country:	MARYLAND
Postal Code:	21076-1426
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	13550325
CORRESPONDENCE DATA	
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ATTORNEY DOCKET NUMBER:	18311/041002
NAME OF SUBMITTER:	KATE OHALE
SIGNATURE:	/Robert P. Lord/
DATE SIGNED:	05/18/2016
Total Attachments: 6	
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source=Assignment Ciena Canada to US#page4.tif	
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ASSIGNMENT

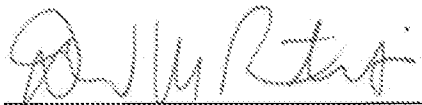
WHEREAS, Ciena Canada, Inc., a Canadian corporation (the "Assignor"), is the owner of the entire right, title, and interest, worldwide, in and to the patents and patent applications listed on Schedule A-1, attached hereto, together with said patent application, all provisionals, divisions, continuations, continuations-in-part, reissues, reexaminations, extensions, all foreign counterparts thereof, and all Letters Patent (domestic and foreign) which may be granted therefor; and

WHEREAS, Ciena Corporation (the "Assignee"), a United States corporation, whose business address is 7035 Ridge Road; Hanover, Maryland 21076-1426, is desirous of acquiring the entire right, title and interest, worldwide, in and to the aforesaid patents and patent applications listed on Schedule A-1 together with said patent application, all provisionals, divisions, continuations, continuations-in-part, reissues, reexaminations, extensions, all foreign counterparts thereof, and all Letters Patent (domestic and foreign), inventor's certificates and other rights thereon granted in the United States and foreign countries that may be granted therefor;

NOW, THEREFORE, for good and valuable consideration paid to the Assignor, by the Assignee, the receipt of which is hereby acknowledged, the Assignor hereby assigns, transfers, and sets over to the Assignee, all right, title, and interest in and to aforesaid patents and patent applications listed on Schedule A-1 together with said patent application, all provisionals, divisions, continuations, continuations-in-part, reissues, reexaminations, extensions, and foreign counterparts thereof, and all Letters Patent (domestic and foreign), inventor's certificates and other rights thereon granted in the United States and foreign countries that may be granted therefor, the same to be held and enjoyed by the Assignee, and for the use and benefit of its successors, assigns, or other legal representatives, to the end of the term for which aforesaid patents and patent applications listed on Schedule A-1, together with said patent application, all provisionals, divisions, continuations, continuations-in-part, reissues, reexaminations, extensions, all foreign counterparts thereof, and all Letters Patent (domestic and foreign) which may be granted therefor would have been held and enjoyed by the Assignor if this assignment, transfer, and sale had not been made.

Executed this 5th day of May, in the year 2016, at Hanover, Maryland.

Ciena Canada, Inc.

By: 

David M. Rothenstein
Senior Vice President & Corporate Secretary

Ciena Corporation

By: 

Robert D. Kucler
Vice President & Head of Intellectual Property

Schedule A-1

ROBIC

TERAXION INC.
Client : 000634

TeraXion patent portfolio as of December 28, 2015

27- Title	METHOD AND APPARATUS FOR MEASURING A FACTOR CHARACTERIZING A BALANCED DETECTION DEVICE								
Inventor(s)	PAINCHAUD, YVES & HOLLIN, MICHEL & MORIN, MICHEL								
Subject #	Country	Application # / Pct	Filing Date	Priority	Registered Owner	Registration Date / Number	Due Date(s)	Status	Expire
0145 ACTIVE	UNITED STATES	12016.137	29-10-2010	81296.028 20-10-2008	TERAXION INC.	29-03-2013 8.408.671		REDACTED	

29- Title	FIBER COUPLING TECHNIQUE ON A WAVEGUIDE								
Inventor(s)	PELLETIER, FRANÇOIS & ROBIDOUX, GUILLAUME & PAINCHAUD, YVES								
Subject #	Country	Application # / Pct	Filing Date	Priority	Registered Owner	Registration Date / Number	Due Date(s)	Status	Expire
0184 ACTIVE	UNITED STATES	13660.325	16-07-2012	81890.286 19-07-2011	TERAXION INC.	28-01-2014 9.539.073		REDACTED	

30- Title	COMPACT POLARIZATION-INSENSITIVE OPTICAL RECEIVER								
Inventor(s)	PAINCHAUD, YVES								
Subject #	Country	Application # / Pct	Filing Date	Priority	Registered Owner	Registration Date / Number	Due Date(s)	Status	Expire
0169 ACTIVE	UNITED STATES	13745.539	18-01-2010	81998.411 18-01-2012	TERAXION INC.	14-10-2014 9.261.989		REDACTED	

31- Title	POLARIZATION ROTATOR ASSEMBLY INCLUDING A SUBWAVELENGTH COMPOSITE PORTION								
Inventor(s)	PICARD, MARIE-JOSÉE & PAINCHAUD, YVES								
Subject #	Country	Application # / Pct	Filing Date	Priority	Registered Owner	Registration Date / Number	Due Date(s)	Status	Expire
0183 ACTIVE	UNITED STATES	14082.899	27-11-2013	81730.323 27-11-2013	TERAXION INC.	8.948.249 03-02-2015		REDACTED	

Teraxion patent portfolio as of December 28, 2015

32. Title									
ELECTRICAL WAVEGUIDE TRANSMISSION DEVICE FOR USE WITH A MACH-ZEHNDER OPTICAL MODULATOR									
Inventor(s): PROSYK, KELVIN									
Subject #	Country	Application # / Pct	Filing Date	Priority	Registered Owner	Registration Date / Number	Due Date(s)	Status	Expire
8183 ACTIVE	UNITED STATES	13722,200	26-12-2012	61676,104 22-12-2011	TERAXION INC.	8,817,866 23-13-2014	REDACTED		

33. Title									
MACH-ZEHNDER OPTICAL MODULATOR USING A BALANCED COPLANAR STRIPLINE WITH LATERAL GROUND PLANES									
Inventor(s): PROSYK, KELVIN									
Subject #	Country	Application # / Pct	Filing Date	Priority	Registered Owner	Registration Date / Number	Due Date(s)	Status	Expire
8178 ACTIVE	CANADA	20,203,105,314,1	15-02-2010	61595,884 24-02-2003	TERAXION INC.	1618,273 20-03-2014, 314,1	REDACTED		
8185 ACTIVE	UNITED STATES	13787,826	14-02-2013	61598,884 16-01-2011	TERAXION INC.	8,092,273 30-06-2014			

34. Title									
MACH-ZEHNDER OPTICAL MODULATOR HAVING AN ASYMMETRICALLY-LOADED TRAVELING WAVE ELECTRODE									
Inventor(s): PROSYK, KELVIN									
Subject #	Country	Application # / Pct	Filing Date	Priority	Registered Owner	Registration Date / Number	Due Date(s)	Status	Expire
8181 ACTIVE	UNITED STATES	14675,854	06-11-2013	61724,796 09-11-2012	TERAXION INC.	8,288,488 14-04-2015	REDACTED		

TeraXion patent portfolio as of December 28, 2015

35- Title									
MACH-ZEHNDER OPTICAL MODULATOR HAVING A TRAVELLING WAVE ELECTRODE WITH A DISTRIBUTED GROUND BRIDGING STRUCTURE									
Inventor(s): PROSYK, KELVIN & WOODS, DAN NICHOLAS									
Subject #	Country	Application # / Pct	Filing Date	Priority	Registered Owner	Registration Date / Number	Due Date(s)	Status	Expire
0182 ACTIVE	UNITED STATES	14081268	15-11-2013	81724819 28-11-2012	TERAXION INC.	02-12-2014 6,203,203	REDACTED		

36- Title									
MONOLITHIC OPTOELECTRONIC TWE-COMPONENT STRUCTURE									
Inventor(s): PROSYK, KELVIN & KAISER, RONALD & VELYHAUS, KARL-OTTO									
Subject #	Country	Application # / Pct	Filing Date	Priority	Registered Owner	Registration Date / Number	Due Date(s)	Fes Estimate / Status	Expire
0171 ACTIVE	CANADA	2746268 PCT/CA2009/06189	15-12-2009	93723268 18-12-2008 12638372	GESELLSCHAFT E.V. and TERAXION				
0174 ACTIVE	CHINA	2009410011 PCT/CA2009/06189	15-12-2009	81724819 18-12-2008 12638372 35-12-2008	GESELLSCHAFT E.V. and TERAXION	25-06-2014 21,21885 0120111			
0188 ACTIVE	UNITED STATES	12638372	15-12-2009	93723268 18-12-2008	GESELLSCHAFT E.V. and TERAXION	9-10-146 19-11-2013			

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TeraXion patent portfolio as of December 28, 2015

Subject #	Country	Application # / Pct	Filing Date	Priority	Registered Owner	Registration Date / Number	Due Date(s)	Status	Expire
9172 ACTIVE	EUROPE	09 830 8213 PCT/US2009/08107	10-12-2009		TERAXION INC. 625 SELLSHIP CT. E.V. and TERAXION	05-10-2012 6 360 201			
9173 ACTIVE	JAP/48	2011-042346 PCT/US2009/08107	15-12-2009		TERAXION INC. 625 SELLSHIP CT. E.V. and TERAXION				REDACTED
9288 ACTIVE	UNITED STATES (DOMESTIC)	14878108	08-10-2010 18-12-2009		TERAXION INC. 625 SELLSHIP CT. E.V. and TERAXION				

37- Title TRAVELING WAVE MACH-ZEHNDER OPTICAL DEVICE

Inventor(s): PROSYK, KELVIN

Subject #	Country	Application # / Pct	Filing Date	Priority	Registered Owner	Registration Date / Number	Due Date(s)	Status	Expire
9175 ACTIVE	UNITED STATES	13763276	08-12-2008		TERAXION INC.	05-10-2012 6 360 201			REDACTED

38- Title MACH-ZEHNDER MODULATOR WITH BACKPLANE VOLTAGE EQUALIZATION

Inventor(s): PROSYK, KELVIN

Subject #	Country	Application # / Pct	Filing Date	Priority	Registered Owner	Registration Date / Number	Due Date(s)	Status	Expire
9188 ACTIVE	UNITED STATES	14350461	29-04-2014	07-07-2014 28-09-2014	TERAXION INC.				REDACTED

Teraxion patent portfolio as of December 28, 2015

39. Title									
MACH-ZEHNDER OPTICAL MODULATOR WITH EMBEDDED ACTIVE ELEMENTS									
Inventor(s): PROSYK, KELVIN & HAGLEY, ANDRE									
Subject #	Country	Application # / Pct	Filing Date	Priority	Registered Owner	Registration Date / Number	Due Date(s)	Status	Expire
6163 ACTIVE	UNITED STATES	14/944,636	28-07-2014	5/085,787 22-09-2013	TERAXION INC.		REDACTED		

40. Title									
SPOT-SIZE CONVERTER FOR OPTICAL MODE CONVERSION AND COUPLING BETWEEN TWO WAVEGUIDES									
Inventor(s): PAINCHAUD, YVES & PICARD, MARIE-JOSEE & LATRASSE, CHRISTINE & POULIN, MICHEL									
Subject #	Country	Application # / Pct	Filing Date	Priority	Registered Owner	Registration Date / Number	Due Date(s)	Status	Expire
6182 ACTIVE	UNITED STATES	14/835,602	3/25/2015	5/082,285 24-02-2014 61,974,540 23-04-2014 21,942,924 21-06-2014	TERAXION INC.		REDACTED		
6166 ACTIVE	INTERNATIONAL PCT	PCT/CA2015/050193	3/25/2015	29-06-2014 41,974,142 02-02-2014	TERAXION INC.		REDACTED		

42. Title									
CONNECTORIZED OPTICAL CHIP ASSEMBLY									
Inventor(s): BELLETIER, FRANÇOIS & LATRASSE, CHRISTINE & PAINCHAUD, YVES & PICARD, MARIE-JOSEE & POULIN, MICHEL									
Subject #	Country	Application # / Pct	Filing Date	Priority	Registered Owner	Registration Date / Number	Due Date(s)	Status	Expire
6184 ACTIVE	UNITED STATES	14,793,114	7/27/2015	65987,389 02-02-2014	TERAXION INC.		REDACTED		

43. Title									
OPTICAL COUPLING BETWEEN TWO LASER-FUSED WAVEGUIDES									
Inventor(s): PICARD, MARIE-JOSEE & PAINCHAUD, YVES									
Subject #	Country	Application # / Pct	Filing Date	Priority	Registered Owner	Registration Date / Number	Due Date(s)	Status	Expire
6168 ACTIVE	UNITED STATES	14,750,248 13,622,282/288,1	07/02/2015		TERAXION INC.		REDACTED		