TRADEMARK ASSIGNMENT

Electronic Version v1.1
Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST

CONVEYING PARTY DATA

Name	Formerly	Execution Date	Entity Type
EMCORE CORPORATION		11/11/2010	CORPORATION: NEW JERSEY
EMCORE SOLAR POWER, INC.		11/11/2010	CORPORATION: DELAWARE

RECEIVING PARTY DATA

Name:	WELLS FARGO BANK, NATIONAL ASSOCIATION
Street Address:	One W Washington Street, 15th Floor
Internal Address:	MAC S4101-158
City:	Phoenix
State/Country:	ARIZONA
Postal Code:	85003
Entity Type:	NATIONAL ASSOCIATION:

PROPERTY NUMBERS Total: 3

Property Type	Number	Word Mark
Registration Number:	3322113	EMCORE
Registration Number:	1672445	ORTEL
Registration Number:	1670095	ORTEL CORPORATION

OP $90.00 3322113

CORRESPONDENCE DATA

Fax Number: (602)340-1538
Correspondence will be sent via US Mail when the fax attempt is unsuccessful.
Phone: 6022577951
Email: mpischner@gustlaw.com
Correspondent Name: Mary Pischner
Address Line 1: One East Washington, Suite 1600
Address Line 4: Phoenix, ARIZONA 85004

ATTORNEY DOCKET NUMBER:	014842-00167

NAME OF SUBMITTER:	Mary Pischner
Signature:	/mpischner/
Date:	05/18/2011

Total Attachments: 43
source=EmcoreParent#page1.tif
source=EmcoreParent#page2.tif
source=EmcoreParent#page3.tif
source=EmcoreParent#page4.tif
source=EmcoreParent#page5.tif
source=EmcoreParent#page6.tif
source=EmcoreParent#page7.tif
source=EmcoreParent#page8.tif
source=EmcoreParent#page9.tif
source=EmcoreParent#page10.tif
source=EmcoreParent#page11.tif
source=EmcoreParent#page12.tif
source=EmcoreParent#page13.tif
source=EmcoreParent#page14.tif
source=EmcoreParent#page15.tif
source=EmcoreParent#page16.tif
source=EmcoreParent#page17.tif
source=EmcoreParent#page18.tif
source=EmcoreParent#page19.tif
source=EmcoreParent#page20.tif
source=EmcoreParent#page21.tif
source=EmcoreParent#page22.tif
source=EmcoreParent#page23.tif
source=EmcoreParent#page24.tif
source=EmcoreParent#page25.tif
source=EmcoreParent#page26.tif
source=EmcoreParent#page27.tif
source=EmcoreParent#page28.tif
source=EmcoreParent#page29.tif
source=EmcoreParent#page30.tif
source=EmcoreParent#page31.tif
source=EmcoreParent#page32.tif
source=EmcoreParent#page33.tif
source=EmcoreParent#page34.tif
source=EmcoreParent#page35.tif
source=EmcoreParent#page36.tif
source=EmcoreParent#page37.tif
source=EmcoreParent#page38.tif
source=EmcoreParent#page39.tif
source=EmcoreParent#page40.tif
source=EmcoreParent#page41.tif
source=EmcoreParent#page42.tif
source=EmcoreParent#page43.tif

PATENT AND TRADEMARK SECURITY AGREEMENT

This Patent and Trademark Security Agreement (the "Agreement"), dated as of 11/11, 2010 is made by and between **EMCORE CORPORATION**, a New Jersey corporation having a business location at the address set forth below next to its signature (the "Debtor"), **EMCORE SOLAR POWER, INC.**, a Delaware corporation ("Subsidiary"), and Wells Fargo Bank, National Association ("Wells Fargo"), and having a business location at the address set forth below next to its signature.

Recitals

A. Debtor and Wells Fargo are parties to a Credit and Security Agreement (as amended, supplemented or restated from time to time, the "Credit Agreement") dated the same date as this Agreement, setting forth the terms on which Wells Fargo may now or hereafter extend credit to or for the account of Debtor. Subsidiary is a wholly owned subsidiary of Debtor. The extension of credit by Wells Fargo to Debtor will directly economically benefit Subsidiary, and Subsidiary has therefore agreed to grant a security interest to Wells Fargo in the Patents owned by Subsidiary.

B. As a condition to extending credit to or for the account of Debtor, Wells Fargo has required the execution and delivery of this Agreement by Debtor and Subsidiary.

ACCORDINGLY, in consideration of the mutual covenants contained in the Loan Documents and herein, the parties hereby agree as follows:

1. Definitions. All terms defined in the Recitals hereto or in the Credit Agreement that are not otherwise defined herein shall have the meanings given to them in the Credit Agreement. In addition, the following terms have the meanings set forth below:

"Patents" means all of Debtor's and Subsidiary's right, title and interest in and to patents or applications for patents, fees or royalties with respect to each, and including without limitation the right to sue for past infringement and damages therefor, and licenses thereunder, all as presently existing or hereafter arising or acquired, including without limitation the patents listed on Exhibit A-1 through A-4, collectively referred to herein as "Exhibit A".

"Security Interest" has the meaning given in Section 2.

"Trademarks" means all of Debtor's right, title and interest in and to: (i) trademarks, service marks, collective membership marks, registrations and applications for registration for each, and the respective goodwill associated with each, (ii) licenses, fees or royalties with respect to each, (iii) the right to sue for past, present and future infringement, dilution and damages therefor, and (iv) licenses thereunder, all as presently existing or hereafter arising or acquired, including, without limitation, the marks listed on Exhibit B.

2. Security Interest. Debtor and Subsidiary hereby irrevocably pledge and assign to, and grant Wells Fargo a security interest (the "Security Interest"), with power of sale to the extent permitted by law, in the Patents and in the Trademarks to secure payment of the Indebtedness. As set forth in the Credit Agreement, the Security Interest is coupled with a security interest in substantially all of the personal property of Debtor. This Agreement grants only the Security Interest herein described, is not intended to and does not affect any present transfer of title of any trademark registration or application and makes no assignment and grants

no right to assign or perform any other action with respect to any intent to use trademark application, unless such action is permitted under 15 U.S.C. § 1060.

3. Representations, Warranties and Agreements. Debtor and Subsidiary represent, warrant and agree as follows:

(a) ***Existence; Authority***. Debtor and Subsidiary are each a corporation duly organized, validly existing and in good standing under the laws of its state of incorporation, and this Agreement has been duly and validly authorized by all necessary corporate action on the part of Debtor and Subsidiary.

(b) ***Patents***. Exhibit A accurately lists all Patents owned or controlled by Debtor and Subsidiary as of the date hereof, or to which Debtor or Subsidiary has a right as of the date hereof to have assigned to it, and accurately reflects the existence and status of applications and letters patent pertaining to the Patents as of the date hereof. If after the date hereof, Debtor or Subsidiary owns, controls or has a right to have assigned to it any Patents not listed on Exhibit A, or if Exhibit A ceases to accurately reflect the existence and status of applications and letters patent pertaining to the Patents, then Debtor or Subsidiary, as applicable, shall within 60 days provide written notice to Wells Fargo with a replacement Exhibit A, which upon acceptance by Wells Fargo shall become part of this Agreement.

(c) ***Trademarks***. Exhibit B accurately lists all Trademarks owned or controlled by Debtor as of the date hereof and accurately reflects the existence and status of Trademarks and all applications and registrations pertaining thereto as of the date hereof; provided, however, that Exhibit B need not list common law marks (i.e., Trademarks for which there are no applications or registrations) which are not material to Debtor's or any Affiliate's business(es). If after the date hereof, Debtor owns or controls any Trademarks not listed on Exhibit B (other than common law marks which are not material to Debtor's or any Affiliate's business(es)), or if Exhibit B ceases to accurately reflect the existence and status of applications and registrations pertaining to the Trademarks, then Debtor shall promptly provide written notice to Wells Fargo with a replacement Exhibit B, which upon acceptance by Wells Fargo shall become part of this Agreement.

(d) ***Affiliates***. As of the date hereof, no Affiliate owns, controls, or has a right to have assigned to it any items that would, if such item were owned by Debtor or Subsidiary, constitute Patents or Trademarks. If after the date hereof any Affiliate owns, controls, or has a right to have assigned to it any such items, then Debtor shall promptly either: (i) cause such Affiliate to assign all of its rights in such item(s) to Debtor; or (ii) notify Wells Fargo of such item(s) and cause such Affiliate to execute and deliver to Wells Fargo a patent and trademark security agreement substantially in the form of this Agreement.

(e) ***Title***. Debtor or Subsidiary, as applicable, has absolute title to each Patent and each Trademark listed on Exhibits A and B, free and clear of all Liens except Permitted Liens. Debtor and Subsidiary (i) will have, at the time Debtor or Subsidiary acquires any rights in Patents or Trademarks hereafter arising, absolute title to each such Patent or Trademark free and clear of all Liens except Permitted Liens, and (ii) will keep all Patents and Trademarks free and clear of all Liens except Permitted Liens.

(f) ***No Sale***. Except as permitted in the Credit Agreement, Debtor and Subsidiary will not assign, transfer, encumber or otherwise dispose of the Patents or Trademarks, or any interest therein, without Wells Fargo's prior written consent; provided that Debtor and Subsidiary may license Patents and Trademarks.

(g) ***Defense***. Debtor and Subsidiary will at their own expense and using commercially reasonable efforts, protect and defend the Patents and Trademarks against all claims or demands of all Persons other than those holding Permitted Liens.

(h) ***Maintenance***. Debtor and Subsidiary will at its own expense maintain the Patents and the Trademarks to the extent reasonably advisable in its business including, but not limited to, filing all applications to obtain letters patent or trademark registrations and all affidavits, maintenance fees, annuities, and renewals possible with respect to letters patent, trademark registrations and applications therefor.

(i) ***Wells Fargo's Right to Take Action***. If Debtor or Subsidiary fails to perform or observe any of its covenants or agreements set forth in this Section 3, and if such failure continues for a period of ten (10) calendar days after Wells Fargo gives Debtor written notice thereof (or, in the case of the agreements contained in subsection (h), immediately upon the occurrence of such failure, without notice or lapse of time), or if Debtor or Subsidiary notifies Wells Fargo that it intends to abandon a Patent or Trademark, Wells Fargo may (but need not) perform or observe such covenant or agreement or take steps to prevent such intended abandonment on behalf and in the name, place and stead of Debtor or Subsidiary, as applicable, (or, at Wells Fargo's option, in Wells Fargo's own name) and may (but need not) take any and all other actions which Wells Fargo may reasonably deem necessary to cure or correct such failure or prevent such intended abandonment other than Patent applications where Debtor has abandoned them in the ordinary course of business upon a reasonable determination that a patent will not be granted.

(j) ***Costs and Expenses***. Except to the extent that the effect of such payment would be to render any loan or forbearance of money usurious or otherwise illegal under any applicable law, Debtor shall pay Wells Fargo on demand the amount of all moneys expended and all costs and expenses (including reasonable attorneys' fees and disbursements) incurred by Wells Fargo in connection with or as a result of Wells Fargo's taking action under subsection (i) or exercising its rights under Section 6, together with interest thereon from the date expended or incurred by Wells Fargo at the Default Rate.

(k) ***Power of Attorney***. To facilitate Wells Fargo's taking action under subsection (i) and exercising its rights under Section 6, Debtor and Subsidiary hereby irrevocably appoint (which appointment is coupled with an interest) Wells Fargo, or its delegate, as the attorney-in-fact of Debtor and Subsidiary with the right (but not the duty) from time to time to create, prepare, complete, execute, deliver, endorse or file, in the name and on behalf of Debtor or Subsidiary, as applicable, any and all instruments, documents, applications, financing statements, and other agreements and writings required to be obtained, executed, delivered or endorsed by Debtor or Subsidiary under this Section 3, or, necessary for Wells Fargo, after an Event of Default, to enforce or use the Patents or Trademarks or to grant or issue any exclusive or non-exclusive license under the Patents or Trademarks to any third party, or to sell, assign, transfer, pledge, encumber or otherwise transfer title in or dispose of the Patents or Trademarks to any third party. Debtor and Subsidiary hereby ratify all that such attorney shall lawfully do or cause to be done by virtue hereof. The power of attorney granted herein shall terminate upon the termination of the Credit Agreement as provided therein and the payment and performance of all Indebtedness.

4. Debtor's and Subsidiary's Use of the Patents and Trademarks. Debtor and Subsidiary shall be permitted to control and manage the Patents and Trademarks, including the right to exclude others from making, using or selling items covered by the Patents and Trademarks and any licenses thereunder, in the same manner and with the same effect as if

this Agreement had not been entered into, so long as no Event of Default occurs and remains uncured.

5. Events of Default. Each of the following occurrences shall constitute an event of default under this Agreement (herein called "Event of Default"): (a) an Event of Default, as defined in the Credit Agreement, shall occur; or (b) Debtor or Subsidiary shall fail promptly to observe or perform any covenant or agreement herein binding on it and not cure such failure within thirty (30) days after written notice from Wells Fargo of such failure; or (c) any of the representations or warranties contained in Section 3 shall prove to have been incorrect in any material respect when made and has not been cured within thirty (30) days after written notice by Wells Fargo.

6. Remedies. Upon the occurrence of an Event of Default and at any time thereafter, Wells Fargo may, at its option, take any or all of the following actions:

(a) Wells Fargo may exercise any or all remedies available under the Credit Agreement.

(b) Wells Fargo may sell, assign, transfer, pledge, encumber or otherwise dispose of the Patents and Trademarks.

(c) Wells Fargo may enforce the Patents and Trademarks and any licenses thereunder, and if Wells Fargo shall commence any suit for such enforcement, Debtor shall, at the request of Wells Fargo, do any and all lawful acts and execute any and all proper documents required by Wells Fargo in aid of such enforcement.

7. Miscellaneous. This Agreement can be waived, modified, amended, terminated or discharged, and the Security Interest can be released, only explicitly in a writing signed by Wells Fargo. A waiver signed by Wells Fargo shall be effective only in the specific instance and for the specific purpose given. Mere delay or failure to act shall not preclude the exercise or enforcement of any of Wells Fargo's rights or remedies. All rights and remedies of Wells Fargo shall be cumulative and may be exercised singularly or concurrently, at Wells Fargo's option, and the exercise or enforcement of any one such right or remedy shall neither be a condition to nor bar the exercise or enforcement of any other. All notices to be given to Debtor under this Agreement shall be given in the manner and with the effect provided in the Credit Agreement. Any notice to Debtor hereunder shall also constitute notice to Subsidiary whether or not Subsidiary was specified as a recipient of the notice. Wells Fargo shall not be obligated to preserve any rights Debtor or Subsidiary may have against prior parties, to realize on the Patents and Trademarks at all or in any particular manner or order, or to apply any cash proceeds of Patents and Trademarks in any particular order of application. This Agreement shall be binding upon and inure to the benefit of Debtor and Wells Fargo and their respective participants, successors and assigns and shall take effect when signed by Debtor and Subsidiary and delivered to Wells Fargo, and Debtor and Subsidiary waives notice of Wells Fargo's acceptance hereof. Wells Fargo may execute this Agreement if appropriate for the purpose of filing, but the failure of Wells Fargo to execute this Agreement shall not affect or impair the validity or effectiveness of this Agreement. A carbon, photographic or other reproduction of this Agreement or of any financing statement signed by Debtor or Subsidiary shall have the same force and effect as the original for all purposes of a financing statement. This Agreement shall be governed by the internal law of Arizona without regard to conflicts of law provisions. If any provision or application of this Agreement is held unlawful or unenforceable in any respect, such illegality or unenforceability shall not affect other provisions or applications which can be given effect and this Agreement shall be construed as if the

unlawful or unenforceable provision or application had never been contained herein or prescribed hereby. All representations and warranties contained in this Agreement shall survive the execution, delivery and performance of this Agreement and the creation and payment of the Indebtedness.

THE PARTIES WAIVE ANY RIGHT TO TRIAL BY JURY IN ANY ACTION OR PROCEEDING BASED ON OR PERTAINING TO THIS AGREEMENT.

IN WITNESS WHEREOF, the parties have executed this Patent and Trademark Security Agreement as of the date written above.

Emcore Corporation
10420 Research Rd. SE
Albuquerque, New Mexico 87123

EMCORE CORPORATION, a New Jersey corporation

By _____

Its President

Emcore Solar Power, Inc.
10420 Research Road SE
Albuquerque, New Mexico 87123

EMCORE SOLAR POWER, INC, a Delaware corporation

By _____

Its President

Wells Fargo Bank, National Association
100 West Washington Street, 15th Floor
MAC S4101-158
Phoenix, AZ 85003

WELLS FARGO Bank, National Association

By _____

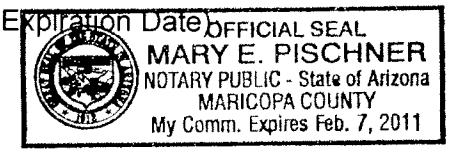
Its Authorized Signatory

State of Arizona

County of Maricopa

The foregoing instrument was acknowledged before me this 11th day of November, 2010, by Hong Hou, the President of Emcore Corporation, a New Jersey corporation, on behalf of the corporation.

(Seal and Expiration Date)



Notary Public

State of Arizona

County of Maricopa

The foregoing instrument was acknowledged before me this 11th day of November, 2010, by Hong Hou, the President of Emcore Solar Power, Inc., a Delaware corporation, on behalf of the corporation.

(Seal and Expiration Date)

Notary Public

State of Arizona

County of Maricopa

The foregoing instrument was acknowledged before me this 11th day of November, 2010, by Joe Primack, an Authorized Signatory of Wells Fargo Bank, National Association, on behalf of the national association.

(Seal and Expiration Date)

Notary Public

EXHIBIT A-1

UNITED STATES ISSUED PATENTS

[LISTED ON FOLLOWING PAGES]

EMCORE U. S. PATENT SUMMARY – CORPORATE (former EMD)

US Patent No.	Issue date .	Inventor	Origin	Short Title	Claimed Subject Matter	Products
6366018	02 Apr 02	Garbuzov	Sarnoff	Wavelength Conversion	Wavelength conversion using phosphor layer in LEDs	
6404125	11 Jun 02	Garbuzov	Sarnoff	Wavelength Conversion Method	Method for wavelength conversion using phosphor layer	
6420252	16 Jul 02	Schwed		Isolating Barrier Metal	Deposition of barrier metal over semiconductor to isolate contact metal	
6413839	02 Jul 02	Brown		Patterned Laser Projection	Separating die by laser ablation	
6642548	04 Nov 03	Brown		Loop Electrodes	Loop and strip electrodes for LED	
6645848	11 Nov 03	Joseph		Adhesion Promoter Layer	Using patterned adhesion promoter layer	
6653215	25 Nov 03	Brown		Contact Annealing for N-type III-V	Al/Ti/Pt/Au layer sequence on n-type III-V semiconductor	
6727167	27 Apr 04	Gottfried		Self Aligned LED	Self alignment process for LED transparent electrode	
6746889	8 Jun 04	Eliashevich		Substrate Thinning	Improving light emissivity of LED by substrate thinning	
6849524	1 Feb 05	Shelton		Die Cleaning	Cleaning die before removing from mounting material	
6902990	7 Jun 05	Gottfried		Sapphire Laser Ablation	Partial cutting of sapphire substrate using laser ablation	
6946313	20 Sept 05	Gottfried		Self -Aligned Device	Self-alignment process for non-transparent electrode	

US Patent No.	Issue date .	Inventor	Origin	Short Title	Claimed Subject Matter	Products
6958498	25 Oct 05	Shelton		Flip Chip LED	Pads around LED active area to allow flip-chip mounting	
7023022	04 Apr 06	Eliashevich		LED Package	LED package with concentric grating pattern	
7115896	03 Oct 06	Guo		GaN on Silicon	GaN semiconductor over GaN superlattice poly-nitride nucleation/Al/silicon substrate	
7439599	21 Oct 08	Gao		PIN Diode Etch	Structure to reduce delamination	
7538403	26 May 09	Gao		Undoped Diffusion Island	PIN diode with undoped island	

EMCORE U. S. PATENT SUMMARY – EFO

US Patent No.	Issue date	Inventor	Origin	Short Title	Claimed Subject Matter	Products
6305848	23 Oct 01	Gregory	Corona	Blindmate	Optoelectric module adapted to blindmate with fiber connector	
6450694	17 Sep 02	Gregory	Corona	Configurable Backplane	Switching signals between boards using signal splitter with multimode fiber	OptoCube
6450704	17 Sep 02	O'Connor	Corona	Hinged Assembly	Transparent substrate with guide pin apertures, optical devices, and signal processor	
6493489	10 Dec 02	Mertz	Alvesta	Alignment Plate	Lens mounted on slot in alignment plate	
6526206	25 Feb 03	Kunkel	Corona	Heatsink	Transparent substrate with heatsink pins extending through substrate	OptoCube
6529320	04 Mar 03	Gregory	Corona	Optical Amplifier	Dual optical amplifiers for multi-wavelength signals	
6547454	15 Apr 03	Wickman	Corona	Chip Alignment	Corresponding alignment guides on array and transparent substrate	OptoCube
6583902	24 Jun 03	Yuen	Alvesta	Perpendicular Processor	Processing board perpendicular to optical beam	
6600853	29 Jul 03	Wickman	Corona	L-Shaped Interconnect	Transparent substrate with alignment pins forming L-shaped bracket	
6677172	13 Jan 04	Hou		Thermal Rollover	Burn in test of VCSEL to predict infant mortality	
6682228	27 Jan 04	Rathnam	Alvesta	Connection Housing	Connector housing with spring and sleeve for locking body	

US Patent No.	Issue date	Inventor	Origin	Short Title	Claimed Subject Matter	Products
6724015	20 Apr 04	Nelson	Corona	Underfill Attachment	Underfill between optical array and transparent substrate	
6724961	20 Apr 04	Greene	Corona	Pick and Place	Active alignment of transparent substrate using pick and place machine	
6729776	4 May 04	O'Connor	Corona	Optical Fiber Alignment	Alignment of optical fiber with transparent substrate	
6733183	11 May 04	Gregory	Corona	Optical Switching	Switching signals between electrical format boards by multimode fiber	
6765242	20 Jul 04	Chang	Sandia	InGaAsN DHBT	NPN double heterostructure (DHBT) transistor	
6784372	31 Aug 04	Yuen	Alvesta	Ball Edge Soldering	Stackable transceivers bonded to mother-board by solder-retaining molded structure	
6793409	21 Sep 04	Wickman	Corona	Via with Refractive Ring	Transparent substrate with refractive elements surrounding via for optical signal	
6795624	21 Sep 04	Wickman	Corona	Registration Target Alignment	Alignment of array/transparent substrate by optical recognition of registration targets	
6798955	28 Sep 04	Kunkel	Corona	Optical Port Alignment	Alignment of array/transparent substrate by optical recognition of optical ports	
6799902	05 Oct 04	Anderson		Heat Spreader	Heat spreader on mounting structure for Array of optoelectronic devices	95XX
6811325	02 Nov 04	O'Connor	Corona	Laser Shut Down	Optical detection of removal of plug from receptacle	
6822879	23 Nov 04	Rathnam	Alvesta	Bent Tip EMI Shield	EMI shield with bent tips that minimize Spring gaps	

US Patent No.	Issue date	Inventor	Origin	Short Title	Claimed Subject Matter	Products
6843608	18 Jan 05	O'Connor	Corona	Guide Pins	Use of guide pins to align device with Transparent substrate	
6845211	18 Jan 05	Wickman	Corona	Darkened Adhesive	Use of laser darkened adhesive to secure device to transparent substrate	
6860650	1 Mar 05	Kunkel	Corona	Guide Pin Heat Dissipater	Pin holder with alignment apertures for transparent substrate adjacent electro-optical converter for heat dissipation	
6863444	8 Mar 05	Anderson		Elastomeric Ring	Elastomeric pressure ring in connector housing for facilitating connection to mounting surface	
6863453	8 Mar 05	Wang		Parallel Optic Alignment Verification	Method of creating hermetic seal between window and array header and iteratively verifying functionality and alignment of array, connector, and subassembly	95XX
6867377	15 Mar 05	Anderson		Flexible PCB with Spacer	Flexible PCB with spacer on angled head region acting as mounting surface	
6868207	15 Mar 05	Wickman	Corona	Optical Grating Diffraction	Use of optical grating for diffracting signal on transparent substrate	
6905260	14 Jun 05	Anderson		Non-opaque Alignment	Using light emitting optical element for aligning fiber by changing relative positions of fiber and array	95XX
6936483	30 Aug 05	Hou		Burn-In for Stability	Stabilizing a semiconductor device by applying test current in incremental steps until current is over normal operating current	
6952297	04 Oct 05	Wickman	Corona	Differential Modulation	Differential circuit using resistor to increase modulation rate of laser	

US Patent No.	Issue date	Inventor	Origin	Short Title	Claimed Subject Matter	Products
6956997	18 Oct 05	Amleshi	Molex	Polymer Waveguide	Coupling laser diode to fiber through polymer waveguide	
6974260	13 Dec 05	Scheibenreif		Flexible Substrate	Flexible substrate in transceiver for securing optical fibers	LX4
D513252	27 Dec 05	Wang		SmartLink	Design for SmartLink module	SmartLink
7021836	04 Apr 06	Anderson		Wavy Glass Attenuator	Wavy glass in optical path (on device or fiber end) of optical array	
7070341	4 Jul 06	Rathnam		Multi-Fold Flex Circuit	Flexible circuit with traces traversing side from front to back	
7075958	11 Jul 06	Wickman	Corona	Laser Output Detector	Waveguide for monitoring power output of laser	
7137744	21 Nov 06	Wang		Rigid-Flex	Flexible circuit board coupled to rigid board inside receiver	SmartLink
7165895	23 Jan 07	Wickman		Diffraction Grating	Use of reflecting/refracting elements around axis of transmission to confine beam	
7198988	3 Apr 07	Collins		Backside Peeling Method	Using dot pattern to reduce peeling during die separation	VCSELs
7242824	10 Jul 07	Scheibenreif		Transceiver Fiber Mgmt.	Routing fibers with bend into multiplexer	LX4
D552552	9 Oct 07	Chan		CX4 XFP	Design for XFP with bulbous connector	CX4
7325983	5 Feb 08	Dallesasse		XFP Package	LX4 Transceiver in XFP Package	
7353599	8 Apr 08	Lau		Fiducial Marking Method	Rectangular fiducial marks for routing	XFP

US Patent No.	Issue date	Inventor	Origin	Short Title	Claimed Subject Matter	Products
7359641	15 Apr 08	Dallesasse		LX4	Three board XENPAK LX4 transceiver	LX4
7359642	15 Apr 08	Richardson		LX4 Receiver	Receiver board XENPAK LX4 transceiver	LX4
D566,651	15 Apr 08	Chan		QFSP Package	QFSP Module design	QFSP
7380993	3 Jun 08	Dallesasse		100 Gigabit PAM	PAM modulation for high speed	XFP
7380995	3 Jun 08	Chan		X2 Latch	Spring latch for use in X2	X2
7408967	5 Aug 08	Collins		VCSEL Optical Mouse	VCSEL optimized for use in mouse	
7463830	9 Dec 08	Whitehead		LX4 Transmitter	Transmitter module	LX4
7465105	16 Dec 08	Scheibenreif		Transceiver Fiber Bend Mgmt.	Routing fibers with bend	LX4
7488123	10 Feb 09	Chan		SFP Latch	Latching mechanism for SFP module	
7494287	24 Feb 09	Wang	Alvesta	SmartCable	Integrated connector short range cable	ConnectCable
D588128	10 Mar 09	Whitmore		Optocube	Design for Optocube	
7518240	14 Apr 09	Collins		Dot Patterned Wafer	Wafer with backside metal dot pattern	VCSEL
7534054	19 May 09	Hudgins		Data Compression	Module with data compressed parameters	
7547572	16 Jun 09	Carson		Guard Ring	Soft guard element around VCSEL	
7566175	28 Jul 09	Scheibenreif		Notched Ferrule	Ferrule with anti-rotating member	XENPAK
7572067	11 Aug 09	Hudgins		Parallel Optical Connector	Dual array connector	
7575380	18 Aug 09	Wang	Alvesta	SmartCable	Integrated connector/transceiver/cable	ConnectCable

US Patent No.	Issue date	Inventor	Origin	Short Title	Claimed Subject Matter	Products
7581891	1 Sep 09	Wang		Power Level Smart Cable	Detecting power loss	
7583900	1 Sep 09	Dallesasse		Gap Pads	Module with gap pads	LX4
7614800	10 Nov 09	Lau		Fiducial Markings	Alignment marks on PC board	
7660128	9 Feb 10	Crews	Intel	Circuit frame		
7734183	8 Jun 10	Whitehead		XFI-XAUI	XFI-XAUI conversion IC	
7736068	15 Jun 10	Hudgins		Tunable module	Wirelessly tuning pluggable module	
		Finot	Intel	Silicon Frame	Silicon frame for tuning	

EMCORE U. S. PATENT SUMMARY – Ortel

US Patent No.	Issue date	Inventor	Origin	Short Title	Claimed Subject Matter	Products
5179461	12 Jan 93	Blauvelt	Ortel	Impedance Matched Receiver	Transformer as impendence matching device between photodetector & amplifier	CATV transmitters
5430569	04 Jul 95	Blauvelt	Ortel	Chirp/RF Signal Combiner	Applying chirp to RF signal for broadening laser spectrum	CATV transmitters
5453868	26 Sep 95	Blauvelt	Ortel	Chirp/RF Signal Combiner	Applying chirp to RF signal for broadening laser spectrum	CATV transmitters
6356679	12 Mar 02	Kapany	K2	Fiber Routing	Optical routing element for use in fiber optic systems	
6463192	08 Oct 02	Kapany	K2	Non-blocking Switch	Non-blocking micro-optic switch matrix for use in fiber optic systems	
6480513	12 Nov 02	Kapany	K2	Tunable ECL	Tunable external cavity laser	
6549316	15 Apr 03	Blauvelt	Ortel/Agere	Laser Bias Control	Control circuit to clip amplitude of bias	
6590691	08 July 03	Nagra	Phasebridge	Hybrid Module	Hybrid integrated optical modulation devices	
6634811	23 Oct 03	Gertel	JDS	Optical Link	Distortion cancellation using combiner	
6728277	27 Apr 04	Wilson	Ortel	Envelope Biasing	Envelope of RF signal used to determine laser bias	
6748132	08 Jun 04	Kapany	K2	Add/Drop Element	Wavelength add/drop element for configurable add/drop multiplexing	
6892010	10 May 05	Miao	Ortel	Thick Film on PD	A thick film on photodetector to improve coupling efficiency to fiber	

US Patent No.	Issue date	Inventor	Origin	Short Title	Claimed Subject Matter	Products
6917764	12 Jul 05	Wilson	Ortel	Odd-Even Predistortion Circuit	Predistortion circuit with single antiparallel diode pair for producing even and odd order distortion	
6941043	06 Sep 05	Major	K2	Wavelength Stabilization	Wavelength stabilization of an external cavity laser diode (ECLD)	
6996344	07 Feb 06	Caidar	Opticomm	Video XMTR	Video transmitter with cable equalizer, reclocker, and level detector	
7011455	14 Mar 06	Luo	Ortel	TO Laser Package with Mirror	TO-Package with mirror to reflect ray to center of fiber	
7034641	25 Apr 06	Clarke	K2	Substrate with Dielectric Layer	Low-thermal-conductivity dielectric layer on a high-thermal-conductivity (BeO) substrate	
7042921	09 May 06	Witzigmann	Ortel	Dual Active Region Laser	DFB laser with region of high reactivity forming a grating	
7075028	11 July 06	Demers	Phasebridge	Sub-micron Mount	Mounting technique and apparatus	
7083335	01 Aug 06	Miao		Epoxy Covered Plate	Fiber package with diffusion retarding plate covered by epoxy	
7095766	22 Aug 06	Witzigmann	Ortel	Pick and Place	Elevated surrounding region of laser to facilitate pick and place tool	
7118292	10 Oct 06	Miao		TEC TO-Module	TEC mounted in TO-Module	
7126078	24 Oct 06	Demers	Phasebridge	Spot Welding	Spot welding using biasing force	THz Systems
7136552	14 Nov 06	Luo	Ortel	Imaging Focal Lens	Photodiode offset from center of fiber	
D537044	20 Feb 07	Weitz		Prisma II Double Density	Double density Prisma II design	Prisma

US Patent No.	Issue date	Inventor	Origin	Short Title	Claimed Subject Matter	Products
7199446	3 Apr 07	Mei	K2	Resistor structure	Stacked composite resistors	
7291839	06 Nov 07	Demers	Phasebridge	Frequency Domain System	Frequency domain spectroscopy	THz Systems
D555104	13 Nov 07	Weitz		Prisma II Single Density	Single density Prisma II design	Prisma
7412174	12 Aug 08	Iannelli		Operation at Sweet Spot	FBG operational points	
7430081	30 Sep 08	Woodard	Phasebridge	Mount of THz component	Adjustable pivoting laser mount	THz Systems
7439511	21 Oct 08	Demers		Single Laser Heterodyne	Use of single laser in THz system	THz Systems
7463802	9 Dec 08	Witzel		DSP Lin Mod	Use of DSP chip in linearized transmitter	Lin Mod
7466925	16 Dec 08	Iannelli		1550nm ECL	Direct mod of laser	CATV
7504312	17 Mar 09	Mei	K2	Resistor structure	Composite resistors	
7509049	24 Mar 09	Lou		Satellite Signal Stacker	Optical carrier with stacked signals	
D592,137	12 May 09	Weitz		GPON Design	Design of GPON housing	GPON
7535005	19 May 09	Demers		Pulsed Heterodyne	Pulsed Terahertz spectrometer	
7548567	16 Jun 09	Kupershmidt	K2	FBG Distortion Dip	FBG set at distortion minima	
7596326	29 Sep 09	Peral		Post-distortion circuit	Receiver with post-distortion IC	
7634198	15 Dec 09	Peral		CSO/CSB Adjustment	Pre-distortion circuit with Schottky diode	
7633992	15 Dec 09	Miao		Integrated Isolator	Laser package with integrated isolator	1938/1958

US Patent No.	Issue date	Inventor	Origin	Short Title	Claimed Subject Matter	Products
7672068	02 Mar 10	Woodard	Phasebridge	Mount of THz component	Adjustment method pivoting laser mount	THz Systems

EMCORE U. S. PATENT SUMMARY – EPV

US Patent No.	Issue date	Inventor	Origin	Short Title	Claimed Subject Matter	Products
4915744	10 Apr 90	Ho	Tecstar	Substrate Orientation	Germanium substrate face oriented from 3° to 20° away from crystal axis	EXPIRED
5405453	11 Apr 95	Ho	Tecstar	Solar cell with grid line/layer contact	Cascade solar cells with grid lines contacting InAlP layer	
6103970	15 Aug 00	Kilmer	Tecstar	Front Mounted Diode	Solar cell with bypass diode mounted in recessed region	
6156967	05 Dec 00	Ralph	Tecstar	Glass Covered Solar Array	Solar cell array with cerian oxide coverglass overlying cells	
6188012	13 Feb 01	Ralph	Tecstar	Solar Concentrator	Solar cell concentrator with stowed and deployed positions	
6278054	21 Aug 01	Ho	Tecstar	Integral Bypass Diode with Photoactive Junction	Epitaxially grown diode with "photoactive junction therein"	Solar cells
6326540	4 Dec 01	Kilmer	Tecstar	Front Mounted Bypass Diode	Bypass diode mounted on front surface of solar cell	
6359210	19 Mar 02	Ho	Tecstar	Bypass Diode/Solar Cell Interconnect	Interconnecting first solar cell/bypass diode with second solar cell	Solar cells
6407327	18 Jun 02	Ralph	Tecstar	Solar Cell Module	Solar cell array module with transparent cover	
6600100	29 Jul 03	Ho	Tecstar	Integral Bypass Diode	Bypass diode with one layer integral to solar cell	Solar cells
6617508	09 Sep 03	Kilmer	Tecstar	Attachable Bypass Diode	Attachable bypass diode mounted in recess of solar cell	

US Patent No.	Issue date	Inventor	Origin	Short Title	Claimed Subject Matter	Products
6680432	20 Jan 04	Sharps		Integral Diode/Subcell	Diode integral to portion of solar subcell.	Solar cells
6864414	8 Mar 05	Sharps		PIN Bypass Diode	Bypass diode with PIN structure	Solar cells
7071407	4 Jul 06	Fatemi		Middle Cell Heterojunction	MJ cell with heterojunction middle cell	
7115811	3 Oct 06	Ho	Tecstar	Integral Bypass Diode	Identical sequence of layers in solar cell and diode	Solar cells
7339109	4 Mar 08	Stan		Nucleation Layer over Ge	InP or InGaP nucleation layer over Ge	
7449630	11 Nov 08	Ho	Tecstar	Integral Bypass Diode	Identical sequence of layers in solar cell and diode regions	Solar cells
7553691	30 Jun 09	Fatemi		Method Hetero Middle Cell	Forming a heterojunction middle cell	
7592538	22 Sept 09	Sharps		PIN Bypass Diode Method	Method forming PIN bypass diode	Solar cells
7629240	8 Dec 09	Stan		Nuceation Layer method	Forming junction in Ge substrate	
7687707	30 Mar 10	Meck		Via Diode	Bypass diode with backside contact via	
7709287	4 May 10	Fatemi		AlGaAs Tunnel Diode	GaAs/AlGaAs tunnel diode	
7727795	1 Jun 10	Stan		IMM Exponentially doped layers	Method of doping layers in IMM cell	IMM
7732705	8 Jun 10	Stan		Diode Interconnect	Multiple interconnects for bypass diode	
7741146	22 Jun 10	Cornfeld		IMM Cut Stereet	Method of etching troughs around cell	IMM

EMCORE U. S. PATENT SUMMARY – ESP

US Patent No.	Issue date	Inventor	Origin	Short Title	Claimed Subject Matter	Products
7381886	3 Jun 08	Aiken		Gen I Array	CPV Array optimum aspect/grid spacing	CPV arrays
7671270	**2 Mar 10**	Fang		Receiver	Receiver with backside traces	

ISSUED PATENTS ACQUIRED FROM INTEL

Emcore Docket Number	Patent No.	Issue Date	Lead Inventor	Title
3121	6,108,355	Aug. 22, 2000	Zorabedian	Continuously-Tunable External Cavity Laser
3122	6,661,814	Dec. 9, 2003	Chapman et al.	Method and Apparatus for Suppressing Stimulated Brillouin Scattering in Fiber Links
3123	6,661,815	Dec. 9, 2003	Kozlovsky et al.	Servo Technique for Concurrent Wavelength Locking and Stimulated Brillouin Scattering Suppression
3124	6,665,321	Dec. 16, 2003	Sochava et al.	Tunable Laser Operation with Locally Commensurate Condition
3125	6,747,819	Jun. 8, 2004	Zbinden et al.	Optoelectronic Assembly
3126	6,773,171	Aug. 10, 2004	Lake	Optoelectronic Housings and Methods of Assembling Optoelectronic Packages
3127	6,804,278	Oct. 12, 2004	Daiber et al.	Evaluation and Adjustment of Laser Losses According to Voltage Across Gain Medium
3128	6,816,323	Nov. 9, 2004	Colin et al.	Coupling with Strong Lens and Weak Lens on Flexure
3129	6,821,032	Nov. 23, 2004	Lake et al.	Methods of Sealing Electronic, Optical and Electro-Optical Packages and Related Package and Substrate Designs
3130	6,822,979	Nov. 23, 2004	Daiber	External Cavity Laser with Continuous Tuning of Grid Generator
3131	6,822,996	Nov. 23, 2004	Pace et al.	Mount Having High Mechanical Stiffness and Tunable External Cavity Laser Assembly Including Same
3132	6,829,268	Dec. 7, 2004	Pontis et al.	Synchronous Servo Control for a Tunable Laser
3133	6,838,658	Jan. 4, 2005	Colin et al.	Simple and Compact Laser Wavelength Locker
3134	6,860,652	Mar. 1, 2005	Narayan, et al.	Package For Housing An Optoelectronic Assembly
3135	6,886,993	May 3, 2005	Verdiell et al.	Optoelectronic Assembly Having a Flexure That Supports Multiple Optical Elements
3136	6,890,106	May 10, 2005	Verdiell et al.	OPTOELECTRONIC ASSEMBLY
3137	6,904,067	Jun. 7, 2005	Colin et al.	BACK FACET WAVELENGTH LOCKER TUNING AND ASSEMBLY METHOD

Emcore Docket Number	Patent No.	Issue Date	Lead Inventor	Title
3138	6,940,887	Sep. 6, 2005	Sochava	Gain Optimizing for Stable Single Mode Operation of External Cavity Laser
3139	6,950,594	Sep. 27, 2005	Lake	Method of Attaching an Optical Fiber to a Flexure
3140	6,980,439	Dec. 27, 2005	Schultz et al.	EMI Shield for Transceiver
3141	7,008,122	Mar. 7, 2006	Mader, et al.	Communications Adapter Module
3142	7,013,071	Mar. 14, 2006	Sell	Method and Device for Achieving Optical Alignment Using Laser Pulses
3143	7,083,333	August 1, 2006	Hodgson	Optical Packages And Methods To Manufacture The Same
3144	7,083,336	August 1, 2006	Kim, et al.	Optical Module With Latching/Delatching Mechanism
3145	7,092,639	Aug. 15, 2006	Schultz et al.	EMI Shield for Reducing Clock Jitter of a Transceiver
3146	7,172,346	February 6, 2007	Mader	Optical Communications Adapter, System And Method
3147	7,215,558	May 8, 2007	Schultz et al.	EMI Shield for Transceiver
3148	7,255,494	August 14, 2007	Zheng	Low-Profile Package For Housing An Optoelectronic Assembly
3149	7,255,496	August 14, 2007	Narayan	Package For Housing An Optoelectronic Assembly
3150	7,257,142	Aug. 14, 2007	Sochava et al.	Semi-Integrated Designs For External Cavity Tunable Lasers
3151	7,281,862	October 16, 2007	Oen	Optical Device Latching Mechanism
3152	7,295,590	November 13, 2007	Crews	Method For Measuring VCSEL Reverse Bias Leakage In An Optical Module
3153	7,350,987	Apr. 1, 2008	Finot et al.	Optical Package Fiber Pass-Through to Reduce Curvature of Optical Fiber During Threading
3154	7,373,031	May 13, 2008	Wang	Apparatus For An Electro-Optical Device Connection
3155	7,377,961	May 27, 2008	McDonald	Hydrogen Vent for Optoelectronic Packages with Resistive Thermal Device (RTD)
3156	7,457,337	Nov. 25, 2008	Kan	Case Grounding
3158	7,468,996	Dec. 23, 2008	Daiber	Dither Servo Control
3157	7,522,848	Apr. 21, 2009	Schulz	Dynamically Adjustable Receiver
3126B	7,534,053	May 19, 2009	Lake	Housing
3159	7,660,128	Feb. 9, 2010	Crews	Interconnection
3154A	7,661,886	Feb. 16, 2010	Wang	Optical Fiber Latch
3160	7,771,071	Aug. 10, 2010	Finot	Silicon Frame for Optical Filter

EXHIBIT A-2

UNITED STATES PATENT APPLICATIONS

[LISTED ON FOLLOWING PAGES]

Docket	Company	Short Title	Inventor	Serial No.	Filing Date
1002A	EPV	Lateral Spaced Diode	Sharps	12/776,120	5/7/2010
1003C		Ge Cell with Nucleation	Stan	12/041,490	3/3/2008
1003D		Nucleation Method/Solar	Stan	12/756,799	4/8/2010
3303	JDSU	LInMod Software	Kreig	11/301,215	12/12/2005
3305C		Multi-Spring		12/689,188	1/18/2010
3309	Opticom	Optiva Daisy Chain	Dagan	12/047,888	3/13/2008
4121E		Fiber Optical Multiplex	Scheibenreif	12/471,256	5/22/2009
5002	EPV	Asterix Grids	Sharps	11/109,016	4/19/2005
5004B		Via Diode	Meck	12/707,512	2/17/2010
5102		Simple Fiducial Mark	Whitehead	11/240,400	9/30/2005
5102B		Simple Fiducial Method		12/367,366	2/9/2009
5104A		Guard Element	Carson	12/476,895	6/2/2009
5117B		Environmental Monitoring	Hudgins	12/437,815	5/8/2009
5303		Phase Modulator	Iannelli	11/366,936	3/2/2006
6001	EPV	IMM Process	Cornfeld	11/445,793	6/2/2006
6001B		IMM Device		12/758,390	4/12/2010
6002		IMM Diode Method	Sharps	11/614,332	12/21/2006
6002B		IMM Diode		12/768,457	4/27/2010
6003		IMM Via	Sharps	11/701,741	2/2/2007
6004		Localized Si Doping	Cornfeld	11/550,881	10/19/2006
6005		Strain Balanced Solar Cell	Sharps	11/788,315	4/18/2007
6006		Solar Cell (IMM) on Kapton	Cornfeld	11/616,596	12/27/2006

Docket	Company	Short Title	Inventor	Serial No.	Filing Date
6102		Host Monitoring	Hudgins	11/620,317	1/5/2007
6103		RFID Tag for Transceiver	Hudgins	11/712,725	3/1/2007
6104		40G Transceiver	Dallesasse	11/551,047	10/19/2006
6105		Optical Mouse	Collins	11/499,210	8/4/2006
6107		Ramp Up Voltage	Wang	11/698,550	1/29/2007
6201C		BiFET device	Cooke	12/778,307	5/12/2010
6302		Feed Forward Direct Mod	Iannelli	11/701,742	2/2/2007
6303		Feed Forward Ex-Mod	Iannelli	11/729,255	3/28/2007
6303B		Feed Forward Method	Iannelli	12/848,683	8/2/2010
6401	ESP	Terrestrial IMM	McGlynn	11/500,053	8/7/2006
6401A		Heat Spreader IMM		12/549,340	8/27/2009
6401B		Terrestrial Cylinder Mount		12/417,367	4/3/2009
7002		IMM InGaP Barrier	Stan	11/860,183	9/24/2007
7004		IMM Cut Off Substrate	Cornfeld	12/047,944	3/13/2008
7005		IMM Exponential Device	Stan	11/956,069	12/13/2007
7006		IMM Thin, Rigid	Varghese	11/860,142	9/24/2007
7006X		IMM Brazing	Cornfeld	12/756,926	4/8/2010
7007		IMM Heterojnct	Stan	12/023,772	1/31/2008
7008		IMM Surfactant	Stan	12/047,842	3/13/2008
7009		High Bandgap Contact	Varghese	12/218,558	7/16/2008
7011		Cell Bonded Interconnect	Varghese	12/187,477	8/7/2008
7012		IMM Barrier Surfactant	Stan	12/102,550	4/14/2008
7101	EFO	Protocol Adaptation	Hudgins	11/776,494	7/11/2007
7105		Tunable 300 Pin	Krusalick	12/077,609	3/20/2008
7107		Hermetic VCSEL	Li	11/835,834	8/9/2007
7108		Parallel TOSA/ROSA	Wang	11/846,271	8/29/2007
7109		Lens Alignment	Wang	11/967,377	12/31/2007
7303		Jitter Modulation	Dallesasse	11/932,374	10/31/2007
7304		Dual Laser Module	Demers	12/062,772	4/4/2008
7305		Optiva L-Band	Olson	12/180,966	7/28/2008
7401	ESP	Concentrator Module	Hering	12/069,642	2/11/2008
7401B		Module Divisional		12/264,369	11/4/2008

Docket	Company	Short Title	Inventor	Serial No.	Filing Date
7402B		Dielectric Coated Board	Fang	12/703,561	2/10/2010
7403		Receiver	Fang	11/830,576	7/30/2007
7404B		Gen II Divisional	Aiken	12/024,489	2/1/2008
8001	EPV	Tensile Window	Stan	12/123,864	5/20/2008
8002		IMM Low Temp	Varghese	12/218,582	10/16/2008
8003		IMM 4J	Cornfeld	12/267,812	11/10/2008
8004		Multi Terminal Cell	Gray	12/248,654	10/9/2008
8005		IMM MQW	Cornfeld	12/253,051	10/16/2008
8006		IMM Refractive Index	Cornfeld	12/258,190	10/24/2008
8007B		IMM Cut Method	Cornfeld	12/816,205	6/15/2010
8008		Reactive Nanofoil	Varghese	12/265,113	11/5/2008
8010		IMM DBR	Stan	12/337,043	12/17/2008
8011		IMM CTE Carrier	Newman	12/271,127	11/14/2008
8012		IMM Vacuum	Cornfeld	12/262,201	1/29/2009
8013		IMM Contacts	Cornfeld	12/262,213	1/29/2009
8015		IMM Goretex	Cornfeld	12/262,225	1/29/2009
8101	EFO	Tunable XFP	Hudgins	12/369,561	2/11/2009
8102		Fiber-Wireless XCVR	McGlynn	12/218,940	7/21/2008
8104		Split TEC	Johnson	12/252,925	10/16/2008
8105		Integrated Laser/Modulator	Sochava	12/537,026	8/6/2009
8106		Analog Control Loop	Daiber	12/540,946	8/13/2009
8301	Ortel	GPON	Lou	12/045,541	3/10/2008
8303		GPON APD	Hufstedler	12/437,617	5/8/2009
8304		GPON Surge Protection	Lou	12/044,665	3/10/2008
8401	ESP	Gen II Array w/Truss	Kats	12/131,556	6/2/2008
8402		Gen II Assembly	Kats	12/200,168	8/28/2008
8403		Gen II Cell Cover Glass	Seel	12/246,295	10/6/2008
8404		Parquet Laser Weld	Zawadzki	12/177,031	7/21/2008
8405		Find Sun	Sherman	12/468,747	5/19/2009
8406		Tracking	Sherman	12/258,253	10/24/2008
8407		Gen III	Kats	12/257,670	10/24/2008
8408		Spectral Matching	McGlynn	12/349,244	1/6/2009
8409		SOE Coating	Seel	12/402,814	3/12/2009
8412		Tracking Initalization	Sherman	12/498,135	7/6/2009
9001		IMM Dual Metamorphic	Cornfeld	12/271,192	11/14/2008
9001X		IMM InGaAlP Top Cell	Patel	12/813,408	6/10/2010
9002		IMM Bonded Flexible Film	Varghese	12/401,137	3/10/2009

Docket	Company	Short Title	Inventor	Serial No.	Filing Date
9003		IMM Lift Off	Cornfeld	12/367,991	2/9/2009
9005		IMM Milled	Chumney	12/389,053	19-Feb-09
9006		IMM As-P Subcell	Newman	12/401,157	3/10/2009
9007		IMM Coating Layer	Cornfeld	12/401,189	3/10/2009
9008		IMM Flex Interconnect	Cornfeld	12/436,467	5/6/2009
9009		Inverted GeSiSn	Sharps	12/463,205	5/8/2009
9010		GeSiSn	Sharps	12/463,216	5/8/2009
9011		Terrestrial GeSiSn	Sharps	12/463,226	5/8/2009
9012		IMM Wrap Through	Cornfeld	12/537,361	8/7/2009
9013		Textured Cover Glass	Cornfeld	12/507,996	7/23/2009
9015		IMM Moly	Cornfeld	12/544,001	8/19/2009
9017		IMM Peel Off	Cornfeld	12/607,544	10/26/2009
9102		Tunable Network Unit	Hudgins	12/411,834	3/26/2009
9104		VCSEL Prism	Wang	12/426,743	4/20/2009
9105		D12 Package	Zhu	12/726,125	3/17/2010
9106		Dark Diode	Xie	12/582,545	10/2/2009
9107		Assymetric Mirrors	Li	12/710,173	2/22/2010
9301		Mach Zehnder	Caton	12/428,935	4/23/2009
9302		Melamine Detector	Demers	12/813,359	6/10/2010
9303		Cooled Module	Miao	12/577,037	10/9/2009
9304		Low Chirp Laser	Hui	12/632,625	12/7/2009
9305		NPR Linearization	Blauvelt	12/403,172	3/12/2009
9306		Receiver	Blauvelt	12/616,594	11/11/2009
9308		Agar	Demers	12/634,922	12/11/2009
9401		Counterweight	Kats	12/478,567	6/4/2009
9402		Encapsulated Receiver	Navygary	12/553,813	9/3/2009
9403		Gen III Board	Seel	12/485,684	6/16/2009
9404		Gen III Module	Vaid	12/582,047	10/20/2009
9406		Power Sampling	Sherman	12/619,322	11/16/2009
9407		Gen III Center Motor	Kats	12/574,508	10/7/2009
9408		Gen III Torque Alignment	Kats	12/623,134	11/20/2009
A001		IMM Moly Film	Sharps	12/637,241	12/14/2009
A002		IMM Laminate	Cornfeld	12/708,361	2/18/2010
A003		IMM DBR Top Cell	Cornfeld	12/716,814	3/3/2010
A004		IMM LTHC Layer	Cornfeld	12/730,018	3/23/2010
A005		IMM Solder Bumps	Newman	12/775,946	5/7/2010
7006Y		IMM Dual Cover Glass	Stan	12/844,673	7/26/2010
A101		EMI Shield	Wang	12/712,979	2/25/2010

Docket	Company	Short Title	Inventor	Serial No.	Filing Date
A102		Packaged Tunable Laser	Daiber	12/722,825	3/12/2010
A105		Laser Housing Design	Daiber	29/363,600	6/11/2010
A301		1958 Laser	Miao	12/637,665	12/14/2009
A302		THz Freq Shift Heterodyne	Logan	12/861,651	8/23/2010
A401		Alignment Dimples	Yang	12/727,022	3/18/2010
A402		Gen III Alignment	Kats	12/791,580	6/1/2010
A403		Ceramic Sun Shield	Nagyvary	12/764,657	4/21/2010
A405		Alignment Photoconductor	Kozin	12/828,734	7/1/2010
A406		Kinematic Model	Sherman	12/830,926	7/6/2010

EXHIBIT A-3

FOREIGN ISSUED PATENTS

[LISTED ON FOLLOWING PAGES]

	Country	Short Title	Inventor	Patent No	Issue Date
EPV					
1001 JP	JP	Front Bypass Diode	Kilmer	3448743	25-Feb-02
1002X JP	JP	Integral Bypass Diode	Sharps	4119844	2-May-08
1002X EP	FR	I Layer Diode		1440480	8-Oct-08
	DE			1440480	8-Oct-08
	IT			1440480	8-Oct-08
	GB			1440480	8-Oct-08
1006B EP	FR	Bypass Diode	Ho	1443566	15-Oct-08
	DE			1443566	15-Oct-08
	IT			1443566	15-Oct-08
	NE			1443566	15-Oct-08
	GB			1443566	15-Oct-08
	ES				
7006 DE	DE	IMM Grinding Surrogate	Varghese	102008034071	
ESP					
7402 CN	CN	Receiver	Fang	ZL 200810094606.0	9-Jun-10
7404 PT	PT	Gen II Array	Aiken	103890	11-Mar-09
7404 GR	GR			1006269	18-Feb-09
7404 AU	AU			2007219267	12-Mar-09
8402 PT	PT	Gen II Assembly		104137	15-Jul-10
EMD					
1202 TW	TW	Quantum Well	Karlick	143338	21-Oct-01
1204 TW	TW	Patterned Projection	Nering	172360	21-Feb-03
4201 TW	TW	GaN Process	Guo	I249246	7-Jan-06
4201 KR	KR			773997	31-Oct-07
4201 JP	JP			4095066	14-Mar-08
Ortel					
1304 UK	UK	Suppression of Noise	Blauvelt	570984	5-Aug-98
1304 DE	DE			69320101	5-Aug-98
5304 SG	SG	CSO/CSB	Peral	138518	28-Nov-08
EFO					
4114 SG	SG	Rigid Flex	Wang	118369	29-Feb-08
4120 KR	KR	Modular Xcvr	Dallesasse	92156	6-Oct-09

EPV	Country	Short Title	Inventor	Patent No	Issue Date
4315 TW	TW	Sweet Spot	Iannelli		
5106 SG	SG	X2 Latch	Chan	133466	30-Sep-09

Encore Ref.	Title	Inventor(s)	US Counterpart	Country of Filing	Foreign Patent #	Issue Date
3127	Evaluation and Adjustment of Laser Losses According to Voltage Across Gain Medium	Andrew Daiber, Hua Li, William B. Chapman and Mark McDonald	6,804,278	China	CN 1524324A	5/27/09
3127	Evaluation and Adjustment of Laser Losses According to Voltage Across Gain Medium	Andrew Daiber, Hua Li, William B. Chapman and Mark McDonald	6,804,278	Germany	DE 60215008.6	9/27/06
3127	Evaluation and Adjustment of Laser Losses According to Voltage Across Gain Medium	Andrew Daiber, Hua Li, William B. Chapman and Mark McDonald	6,804,278	Great Britain	1 405 378	9/27/06
3127	Evaluation and Adjustment of Laser Losses According to Voltage Across Gain Medium	Andrew Daiber, Hua Li, William B. Chapman and Mark McDonald	6,804,278	Hong Kong	HK 1063693	4/27/07
3127	Evaluation and Adjustment of Laser Losses According to Voltage Across Gain Medium	Andrew Daiber, Hua Li, William B. Chapman and Mark McDonald	6,804,278	Korea	KR 626632	9/14/06
3127	Evaluation and Adjustment of Laser Losses According to Voltage Across Gain Medium	Andrew Daiber, Hua Li, William B. Chapman and Mark McDonald	6,804,278	Netherlands	1 405 378	9/27/06

Encore Ref.	Title	Inventor(s)	US Counterpart	Country of Filing	Foreign Patent #	Issue Date
3130	External Cavity Laser with Continous Tuning Grid Generator	Andrew Daiber	6,822,979	Japan	JP 4204972	10/24/08
3130	External Cavity Laser with Continous Tuning Grid Generator	Andrew Daiber	6,822,979	Korea	KR 681543	2/5/07
3150	Semi-Integrated Designs for External Cavity Tunable Lasers	Sergei L. Sochava, William E. Chapman and William J. Kozlovsky	7,257,142	China	CN 100477419C	4/8/09
3151	Optical Device Latching Mechanism	Joshua Oen, Daehwan D. Kim and Ching-Ling Meng	7,281,862	Taiwan	TW 95111491	2/1/09
3130	Grid Tuning	Daiber et al	6,822,979	France	EP 1405381	5/19/10
3130	Grid Tuning	Daiber et al	6,822,979	Italy	EP 1405381	5/19/10
3130	Grid Tuning	Daiber et al	6,822,979	Germany	60236435.3	5/19/10

EXHIBIT A-4

FOREIGN PATENT APPLICATIONS

[LISTED ON FOLLOWING PAGES]

New Dkt	Country	Short Title	Inventor	Ser. No.	Filing Date
	DE	PIN Diode		10297371.7	10/24/2002
1002XB	EP	Schottky Diode		08017554.0	10/7/2008
1004	EP	Middle Cell	Fatemi	03810750.4	8/5/2003
1006C	JP	Integral Bypass Diode			
1006C	EP	Bypass Diode Features		9014641.6	11/24/2009
1007	EP	Schottky Bypass Diode	Ho	02765896.2	7/26/2002
1101	EP	Optical Transceiver	Anderson	1274175.7	11/20/2001
1102	EP	Coupling	Anderson	1988146.5	11/20/2001
3308	EP	Optiva		07254528.8	11/21/2007
4114	JP	Rigid Flex	Wang	2005-147784	5/20/2005
	TW			094108052	3/16/2005
	TH			098134	2/28/2005
4120					
	JP			2004-243031	7/27/2004
	TW			093122426	6/27/2004
	CN			2004-10071023.8	7/27/2004
	TH			092669	7/28/2004
	SG			2004-04314-7	7/22/2004
	HK			06101375.7	2/1/2006
4304					
	JP			2006-043132	1/24/2006
4306	CN	1550 nm ECL	Iannelli	200510055483.6	3/18/2005
	TW			94108415	3/18/2005
	JP			2005-081098	3/22/2005
	KR			10-2005-0022777	3/18/2005
4315	CN	Sweet Spot	Iannelli	200510103273.X	9/20/2005
	TW			94131951	9/16/2005
	JP			2005-306345	9/21/2005
	KR			10-2005-0087897	9/21/2005
4201	CN	GaN Process	Guo	200380100487.0	11/22/2004
	DE			10392313.6	12/2/2003
	TW			092134195	12/4/2003

New Dkt	Country	Short Title	Inventor	Ser. No.	Filing Date
5002	EP	Asterix Grids	Sharps	06004722.2	3/8/2006
	IN			380/DEL/2006	2/13/2006
5003	EP	Diode Interconnect	Stan	06016119.7	8/2/2006
	CN			200610128696.1	9/8/2006
	JP			2006-277649	10/11/2006
	IN			1770/DEL/2006	8/3/2006
5004	EP	VIA Diode	Meck	06016118.9	8/2/2006
	CN			200610128670.7	9/4/2006
	JP			2006-337609	11/16/2006
	IN			777/DEL/2006	8/4/2006
5106	EP	X2 Latch	Chan	06017922.3	8/28/2006
	TH			0601003570	7/28/2006
	SG			200605354-0	8/7/2006
5302					
	CN			200610128671.1	9/4/2006
	JP			2006-290849	10/26/2006
5303	CN	Hybrid Phase Modulator	Iannelli	200610170523.6	12/21/2006
	TW			095145077	
	JP			2006-336993	12/14/2006
5304	EP	CSO/CSB	Peral	06023469.7	11/10/2006
	CN			200710003300.5	2/2/2007
	JP			2007-158462	
	KR				
	TH			0601006575	12/27/2006
	SG			EP	
5306		Butterfly Pluto	Miao		
	CN			200610140332.5	11/27/2006
	TW			095146798	
	JP			2006-347315	12/25/2006
	KR			10-2006-0136811	12/28/2006
	IN			2298/DEL/2006	10/19/2006
6001	EP	IMM Process	Cornfeld	06024750.9	11/29/2006
	CN			200610170015.8	12/22/2006
	JP			2007-041930	2/22/2007

New Dkt	Country	Short Title	Inventor	Ser. No.	Filing Date
	IN			2553/DEL/2006	11/28/2006
6002	EP	IMM Diode		07-024-239.1	12/13/2007
	IN			2083/DEL/2007	10/5/2007
	CN			200710170333.9	11/12/2007
	JP			2007-341829	12/18/2007
6003	EP	IMM Via		07020333.6	10/17/2007
	IN			2076/DEL/2007	10/4/2007
	CN			200710302234.1	12/20/2007
	JP			2008-022765	2/1/2008
6004	EP	Localized Si Doping		07 016 452.0	8/22/2007
	IN			1824/DEL/2007	8/29/2007
	CN			200710163384.9	10/19/2007
	JP				
6006	EP	Solar Cell on Kapton		07 016 453.8	8/22/2007
	IN			1827/DEL/2008	8/29/2007
	CN			200710164349.9	10/30/2007
	TW			097113117	4/10/2008
	JP			2007-334822	12/26/2007
6101	EP	VCSEL Optical Mouse	Collins	06025379.6	12/7/2006
	CN			200610162003.0	12/7/2006
	TW			095142463	11/16/2006
	JP			2006-331418	12/8/2006
6302	CN	Feed Forward Direct Mod	Iannelli	200710307153.0	12/27/2007
	JP			2008-051203	2/1/2008
6303	CN	Feed Forward Ex-Mod	Iannelli		
	JP			2008-114509	
7002	EP	IMM Barrier Layer		08013467.9	7/25/2008
	DE			102008034711.6	7/25/2008
	JP			2008-243637	9/24/2008
	CN			200810211416.2	9/22/2008
	TW			097128500	7/25/2008
7005	EP	IMM Expon Grading		08021551.0	12/11/2008
	JP			2008-269598	10/20/2008
	CN			200810149533.0	9/10/2008
	TW			097132608	8/26/2008
7006	EP	IMM Thin, Rigid		08013466.1	7/25/2008
	DE			102008034701.9	7/25/2008
	JP				

New Dkt	Country	Short Title	Inventor	Ser. No.	Filing Date
	CN			200810133368.X	8/11/2008
	TW			097128491	7/25/2008
7007	EP	IMM Heterojnct		09000718.8	1/31/2009
	JP			2009-003363	1/9/2009
	CN			200810171863.X	11/12/2008
	TW			097140523	10/22/2008
7304	UK	Dual Laser Module		0905550.0	3/31/2009
	DE			102009015565.1	3/30/2009
	JP			2009-106996	4/3/2009
7401	DE	Concentrator/Receiver		1002009006286	1/27/2009
	ES			200803187	11/7/2008
	CN			200910009814.0	1/23/2009
	TW			098102103	1/20/2009
	JP			2009-052652	2/10/2009
	KR			10-2009-0003929	1/16/2009
7402	DE	Receiver	Fang	10-2008-012335.8	3/3/2008
	ES			200800729	3/13/2008
	IT			MI2008A000476	3/20/2008
	CN			200810094606.0	4/22/2008
	KR			10-2008-0031242	4/3/2008
7404	DE	Gen II Array		10 2007 044 477.1	9/17/2007
	ES			200703074	11/21/2007
	IT			MI2007AD01833	9/21/2007
	PT			103890	9/21/2007
	GR			20080100028	1/16/2008
	FR			0759719	12/11/2007
	AU			2007219267	9/24/2007
	IN			1981/DEL/2007	9/19/2007
	CN			200710163494.5	10/25/2007
	KR			10-2008-0010652	2/1/2008
8402	DE	Assembly Gen II Array		102008033647.5	7/17/2008
	ES			200802209	7/24/2008
	PT			104137	7/24/2008
	IT			MI2008A001496	8/7/2008
	CN			200810144472.9	7/31/2008
8403	ES	Gen II Cell Cover Glass		200900123	1/16/2009

New Dkt	Country	Short Title	Inventor	Ser. No.	Filing Date
7405/07	EP	III-V Terrestrial Solar Cell		08017412.1	10/2/2008
	JP			2009-002410	1/8/2009
	CN			200810180415.6	11/26/2008
	TW			097142404	11/3/2008
8011	DE	IMM SiAl Carrier		10-2009-049 397.2	10/14/2009
	JP			2009-276954	11/13/2009
	CN			200910223616.4	11/13/2009
	TW			098138702	11/13/2009
9001	EP	IMM 4J		09013431.3	10/23/2009
	DE			102009050454.0	10/23/2009
	JP			2009-276955	11/13/2009
	CN			200910223615.X	11/13/2009
	TW			098138690	11/13/2009
9401	EP	Gen III		09013482.6	10/26/2009
	CN			200910206641.1	10/29/2009
	TW			0981134673	10/13/2009
	JP			2009-233206	10/7/2009
	KR			10-2009-0095240	10/7/2009
	IN			1989/DEL/2009	
9405	EP	Solar Tracking		09013430.5	10/23/2009
	DE			10-2009-050-453.2	10/23/2009
	UK			0918669.3	10/23/2009
8009	DE	IMM SOITEC substrate		102009057020.9	
	FR			0959078	12/16/2009
9009	DE	Inverted GeSiSn		2010012080.4	3/19/2010
	CN			201010169548.0	4/28/2010
	TW			099107003	3/10/2010
	JP			2010-105305	4/30/2010
9010	DE	GeSiSn			
	CN			201010147977.8	4/8/2010
	TW			099108399	3/22/2010
	JP			2010-107410	5/7/2010
9402	DE	Encapsulated Receiver			
	CN			201010269175.4	8/31/2010
9403	EP	Gen III Board			
	CN			201010169600.2	4/28/2010
	TW			099111655	4/14/2010

New Dkt	Country	Short Title	Inventor	Ser. No.	Filing Date
	JP			2010130070	6/7/2010
	KR			102010057094	6/16/2010
9404	DE	Gen III Module		102010013212.8	3/29/2010
	ES			201031151	7/26/2010
	IT			MI2010A 001392	7/28/2010
	CN			201010259060.7	8/19/2010
	IN				
A402	DE	Gen III Alignment		102010024546.1	6/22/2010
	IT			MI2010A001232	7/5/2010
8308	CN	Integrated Isolator	Miao	200910142991.6	5/20/2009

EXHIBIT B

UNITED STATES ISSUED TRADEMARKS, SERVICE MARKS AND COLLECTIVE MEMBERSHIP MARKS

REGISTRATIONS

Mark	Registration Number	Registration Date
EMCORE	3,322,113	October 30, 2007
ORTEL	1,672,445	January 21, 1992
ORTEL CORPORATION AND LOGO	1,670,095	December 31, 1991

APPLICATIONS

NONE

COLLECTIVE MEMBERSHIP MARKS

NONE

UNREGISTERED MARKS

NONE