### PATENT ASSIGNMENT

## Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE: **NEW ASSIGNMENT** NATURE OF CONVEYANCE: Patent Security Agreement

#### **CONVEYING PARTY DATA**

Name	Execution Date
OCLARO TECHNOLOGY LIMITED	07/26/2011

#### **RECEIVING PARTY DATA**

Name:	Wells Fargo Capital Finance, Inc., as Agent
Street Address:	2450 Colorado Avenue, Suite 3000 West
City:	Santa Monica
State/Country:	CALIFORNIA
Postal Code:	90404

#### PROPERTY NUMBERS Total: 45

Property Type	Number
Patent Number:	7375874
Patent Number:	7190854
Patent Number:	6950570
Patent Number:	6905614
Patent Number:	6847907
Patent Number:	6751395
Patent Number:	7760972
Patent Number:	RE41438
Patent Number:	7075701
Patent Number:	7071109
Patent Number:	7054519
Patent Number:	7015885
Patent Number:	6963679
Patent Number:	6827866
Patent Number:	7058253
	DATENT

**PATENT** 

REEL: 028325 FRAME: 0001

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Patent Number:	6914711
Application Number:	12889517
Application Number:	12873382
Application Number:	12496919
Application Number:	12594213
Application Number:	10173668
Application Number:	12480573
Application Number:	12897172
Application Number:	11993304
Application Number:	11993247
Application Number:	12096307
Application Number:	12248984
Application Number:	12587753
Application Number:	12028055
Application Number:	12059111
Application Number:	13121885
Application Number:	12497892
Application Number:	12475116
Application Number:	12584919
Application Number:	12906554
Application Number:	12993617
Application Number:	12777169
Application Number:	12433769
Application Number:	13153920
Application Number:	12860639
Application Number:	13091103
Application Number:	12942442
Application Number:	12982559
Application Number:	61446865
Application Number:	61494125

## CORRESPONDENCE DATA

**Fax Number**: (949)760-0182 **Phone**: 949-760-1121

Email: patent@buchalter.com

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

**REEL: 028325 FRAME: 0002** 

via US Mail.

Correspondent Name: Sandra P. Thompson, PhD.

Address Line 1: 18400 Von Karman Avenue, Ste 800

Address Line 4: Irvine, CALIFORNIA 92612

ATTORNEY DOCKET NUMBER: F6384-1244

NAME OF SUBMITTER: Sandra P. Thompson, PhD.

Total Attachments: 10

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#### PATENT SECURITY AGREEMENT

This PATENT SECURITY AGREEMENT (this "Patent Security Agreement") is made this 26th day of July, 2011, by and among the Grantors listed on the signature pages hereof (collectively, jointly and severally, "Grantors" and each individually "Grantor"), and WELLS FARGO CAPITAL FINANCE, INC., a California corporation ("WFCF"), in its capacity as agent for the Lender Group and the Bank Product Providers (in such capacity, together with its successors and assigns in such capacity, "Agent").

#### WITNESSETH:

WHEREAS, pursuant to that certain Amended and Restated Credit Agreement dated as of July 26, 2011 (as amended, restated, supplemented, or otherwise modified from time to time, the "Credit Agreement") by and among Oclaro, Inc., a Delaware corporation ("Parent"), and Oclaro Technology Limited, a company incorporated under the laws of England and Wales, as borrower ("Borrower"), the lenders party thereto as "Lenders" (such Lenders, together with their respective successors and assigns in such capacity, each, individually, a "Lender" and, collectively, the "Lenders"), and Agent, the Lender Group has agreed to make certain financial accommodations available to Borrower from time to time pursuant to the terms and conditions thereof; and

WHEREAS, the members of Lender Group are willing to make the financial accommodations to Borrower as provided for in the Credit Agreement, but only upon the condition, among others, that the Grantors shall have executed and delivered to Agent, for the benefit of the Lender Group and the Bank Product Providers, that certain Security Agreement (Domestic), dated as of July 26, 2011 (including all annexes, exhibits or schedules thereto, as from time to time amended, restated, supplemented or otherwise modified, the "Security Agreement"); and

WHEREAS, pursuant to the Security Agreement, Grantors are required to execute and deliver to Agent, for the benefit of the Lender Group and the Bank Product Providers, this Patent Security Agreement;

NOW, THEREFORE, in consideration of the premises and mutual covenants herein contained and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each Grantor hereby agrees as follows:

- 1. <u>DEFINED TERMS</u>. All initially capitalized terms used but not otherwise defined herein have the meanings given to them in the Security Agreement or, if not defined therein, in the Credit Agreement.
- 2. GRANT OF SECURITY INTEREST IN PATENT COLLATERAL. Each Grantor hereby unconditionally grants, assigns, and pledges to Agent, for the benefit each member of the Lender Group and each of the Bank Product Providers, to secure the Secured Obligations, a continuing security interest (referred to in this Patent Security Agreement as the "Security Interest") in all of such Grantor's right, title and interest in and to the following, whether now owned or hereafter acquired or arising and subject to any exclusions set forth in the Security Agreement (collectively, the "Patent Collateral"):
- (a) all of its Patents and Patent Intellectual Property Licenses to which it is a party including those referred to on <u>Schedule I</u>;
- (b) all divisionals, continuations, continuations-in-part, reissues, reexaminations, or extensions of the foregoing; and

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- (c) all products and proceeds of the foregoing, including any claim by such Grantor against third parties for past, present or future infringement of any Patent or any Patent exclusively licensed under any Intellectual Property License, including the right to receive damages, or right to receive license fees, royalties, and other compensation under any Patent Intellectual Property License.
- 3. <u>SECURITY FOR SECURED OBLIGATIONS</u>. This Patent Security Agreement and the Security Interest created hereby secures the payment and performance of the Secured Obligations, whether now existing or arising hereafter. Without limiting the generality of the foregoing, this Patent Security Agreement secures the payment of all amounts which constitute part of the Secured Obligations and would be owed by Grantors, or any of them, to Agent, the Lender Group, the Bank Product Providers or any of them, whether or not they are unenforceable or not allowable due to the existence of an Insolvency Proceeding involving any Grantor.
- 4. <u>SECURITY AGREEMENT</u>. The Security Interest granted pursuant to this Patent Security Agreement is granted in conjunction with the security interests granted to Agent, for the benefit of the Lender Group and the Bank Product Providers, pursuant to the Security Agreement. Each Grantor hereby acknowledges and affirms that the rights and remedies of Agent with respect to the Security Interest in the Patent Collateral made and granted hereby are more fully set forth in the Security Agreement, the terms and provisions of which are incorporated by reference herein as if fully set forth herein. To the extent there is any inconsistency between this Patent Security Agreement and the Security Agreement, the Security Agreement shall control.
- 5. <u>AUTHORIZATION TO SUPPLEMENT</u>. If any Grantor shall obtain rights to any new patent application or issued patent or become entitled to the benefit of any patent application or patent for any divisional, continuation, continuation-in-part, reissue, or reexamination of any existing patent or patent application, the provisions of this Patent Security Agreement shall automatically apply thereto. Grantors shall give prompt notice in writing to Agent with respect to any such new patent rights. Without limiting Grantors' obligations under this Section, Grantors hereby authorize Agent unilaterally to modify this Patent Security Agreement by amending <u>Schedule I</u> to include any such new patent rights which constitute Collateral of each Grantor. Notwithstanding the foregoing, no failure to so modify this Patent Security Agreement or amend <u>Schedule I</u> shall in any way affect, invalidate or detract from Agent's continuing security interest in all Collateral, whether or not listed on <u>Schedule I</u>.
- 6. <u>COUNTERPARTS</u>. This Patent Security Agreement may be executed in any number of counterparts and by different parties on separate counterparts, each of which, when executed and delivered, shall be deemed to be an original, and all of which, when taken together, shall constitute but one and the same Patent Security Agreement. Delivery of an executed counterpart of this Patent Security Agreement by telefacsimile or other electronic method of transmission shall be equally as effective as delivery of an original executed counterpart of this Patent Security Agreement. Any party delivering an executed counterpart of this Patent Security Agreement but the failure to deliver an original executed counterpart shall not affect the validity, enforceability, and binding effect of this Patent Security Agreement.
- 7. <u>CONSTRUCTION</u>. This Patent Security Agreement is a Loan Document. Unless the context of this Patent Security Agreement clearly requires otherwise, references to the plural include the singular, references to the singular include the plural, the terms "includes" and "including" are not limiting, and the term "or" has, except where otherwise indicated, the inclusive meaning represented by the phrase "and/or". The words "hereof", "herein", "hereby", "hereunder", and similar terms in this Patent Security Agreement refer to this Patent Security Agreement as a whole and not to any particular provision of this Patent Security Agreement. Section, subsection, clause, schedule, and exhibit references herein are to this Patent Security Agreement unless otherwise specified. Any reference in this Patent Security Agreement to any agreement, instrument, or document shall include all alterations, amendments, changes, extensions, modifications, renewals, replacements, substitutions, joinders, and supplements, thereto and thereof, as

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applicable (subject to any restrictions on such alterations, amendments, changes, extensions, modifications, renewals, replacements, substitutions, joinders, and supplements set forth herein). The words "asset" and "property" shall be construed to have the same meaning and effect and to refer to any and all tangible and intangible assets and properties, including cash, securities, accounts, and contract rights. Any reference herein to the satisfaction, repayment, or payment in full of the Secured Obligations shall mean the repayment in full in cash or immediately available funds (or, (a) in the case of contingent reimbursement obligations with respect to Letters of Credit, providing Letter of Credit Collateralization, and (b) in the case of obligations with respect to Bank Products (other than Hedge Obligations), providing Bank Product Collateralization) of all of the Secured Obligations (including the payment of any termination amount then applicable (or which would or could become applicable as a result of the repayment of the other Secured Obligations) under Hedge Agreements provided by Hedge Providers) other than (i) unasserted contingent indemnification Secured Obligations, (ii) any Bank Product Obligations (other than Hedge Obligations) that, at such time, are allowed by the applicable Bank Product Provider to remain outstanding without being required to be repaid or cash collateralized, and (iii) any Hedge Obligations that, at such time, are allowed by the applicable Hedge Provider to remain outstanding without being required to be repaid. Any reference herein to any Person shall be construed to include such Person's successors and permitted assigns. Any requirement of a writing contained herein shall be satisfied by the transmission of a Record.

- 8. THE VALIDITY OF THIS PATENT SECURITY AGREEMENT, THE CONSTRUCTION, INTERPRETATION, AND ENFORCEMENT HEREOF, AND THE RIGHTS OF THE PARTIES HERETO WITH RESPECT TO ALL MATTERS ARISING HEREUNDER OR RELATED HERETO SHALL BE DETERMINED UNDER, GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF CALIFORNIA.
- 9. THE PARTIES AGREE THAT ALL ACTIONS OR PROCEEDINGS ARISING IN CONNECTION WITH THIS PATENT SECURITY AGREEMENT SHALL BE TRIED AND LITIGATED ONLY IN THE STATE AND, TO THE EXTENT PERMITTED BY APPLICABLE LAW, FEDERAL COURTS LOCATED IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA; PROVIDED, HOWEVER, THAT ANY SUIT SEEKING ENFORCEMENT AGAINST ANY COLLATERAL OR OTHER PROPERTY MAY BE BROUGHT, AT AGENT'S OPTION, IN THE COURTS OF ANY JURISDICTION WHERE AGENT ELECTS TO BRING SUCH ACTION OR WHERE SUCH COLLATERAL OR OTHER PROPERTY MAY BE FOUND. AGENT AND EACH GRANTOR WAIVE, TO THE EXTENT PERMITTED UNDER APPLICABLE LAW, ANY RIGHT EACH MAY HAVE TO ASSERT THE DOCTRINE OF FORUM NON CONVENIENS OR TO OBJECT TO VENUE TO THE EXTENT ANY PROCEEDING IS BROUGHT IN ACCORDANCE WITH THIS SECTION 9.
- 10. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, AGENT AND EACH GRANTOR HEREBY WAIVE THEIR RESPECTIVE RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF THIS AGREEMENT OR ANY OF THE TRANSACTIONS CONTEMPLATED HEREIN, INCLUDING CONTRACT CLAIMS, TORT CLAIMS, BREACH OF DUTY CLAIMS, AND ALL OTHER COMMON LAW OR STATUTORY CLAIMS. AGENT AND EACH GRANTOR REPRESENT THAT EACH HAS REVIEWED THIS WAIVER AND EACH KNOWINGLY AND VOLUNTARILY WAIVES ITS JURY TRIAL RIGHTS FOLLOWING CONSULTATION WITH LEGAL COUNSEL. IN THE EVENT OF LITIGATION, A COPY OF THIS PATENT SECURITY AGREEMENT MAY BE FILED AS A WRITTEN CONSENT TO A TRIAL BY THE COURT.

[SIGNATURE PAGE FOLLOWS]

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IN WITNESS WHEREOF, the parties hereto have caused this Patent Security Agreement to be executed and delivered as of the day and year first above written.

**GRANTORS:** 

OCLARO TECHNOLOGY LIMITED, a limited liability company incorporated under the laws of England and Wales, as Borrower

By:\_ Name: Jerry Turin Title: Director

By: Name: Catherine H. Rundle

Title: Director

Patent Security Agreement

**AGENT:** 

WELLS FARGO CAPITAL FINANCE, INC., a California corporation

Name: Patrick McCormack

Title: Vice President

Patent Security Agreement

# SCHEDULE I to PATENT SECURITY AGREEMENT

## **Patents**

Grantor	Country	Patent	Application/ Patent No.	Filing Date
Oclaro Technology Limited	USA	E/ Bragg grating structure	12/889517	9/24/10
Oclaro Technology Limited	USA	E/High power semiconductor laser diodes	12/873382	9/1/10
Oclaro Technology Limited	USA	Stabilized laser source with very high relative feedback and narrow bandwidth	12/496919	7/2/09
Oclaro Technology PLC	USA	Light modulator with integrated drive and control circuitry	7375874	5/20/08
Oclaro Technology PLC	USA	Methods for forming an array of MEMS optical elements	7190854	3/13/07
Oclaro Technology PLC	USA	E/ Integrated fiber, sensor and lens arrays for optical networks	6950570	9/27/05
Oclaro Technology PLC	USA	CM/ Pattern- transfer process for forming micro- electro-mechanical structures	6905614	6/14/05
Oclaro Technology PLC	USA	E/ Defect detection and repair of micro- electro-mechanical systems (MEMS) devices	6847907	1/25/05
Oclaro Technology PLC	USA	E/ Micro-electro- mechanical variable optical attenuator	6751395	6/15/04

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Oclaro Technology PLC	USA	Multiport switch for optical performance monitor	7760972	7/20/10
Oclaro Technology PLC	USA	Fiber amplifier with one single mode core having modified gain spectrum	RE41438	7/13/10
Oclaro Technology PLC	USA	Branched waveguide multisection DBR semiconductor laser	12/594213	2/10/10
Oclaro Technology PLC	USA	Light modulator with integrated drive and control circuitry	7075701	7/11/06
Oclaro Technology PLC	USA	Methods for fabricating spatial light modulators with hidden comb actuators	7071109	7/4/06
Oclaro Technology PLC	USA	E/ Reconfigurable optical add drop multiplexers with integrated power equalization	7054519	5/30/06
Oclaro Technology PLC	USA	MEMS devices monolithically integrated with drive and control circuitry	7015885	3/21/06
Oclaro Technology PLC	USA	E/ Micro-opto- electro-mechanical switching system	6963679	11/8/05
Bookham Technology PLC	USA	Fibre support	10/173668	6/19/02
Bookham Technology PLC	USA	E/ Optical communications	12/480573	6/8/09
Bookham Technology PLC	USA	E/ demodulation of an optical carrier	12/897172	10/04/10

Bookham Technology PLC	USA	High power semiconductor laser diode	11/993304	6/28/06
Bookham Technology PLC	USA	E/ high power semiconductor opto-electronic device	11/993247	6/28/06
Oclaro Technology PLC	USA	Deep-well lithography process for forming micro-electro- mechanical structures	6827866	4/12/07
Oclaro Technology Limited	USA	Bragg reflector grating	12/096307	12/8/06
Oclaro Technology Limited	USA	Laser light source and method of operating the same	12/248984	10/10/08
Oclaro Technology Limited	USA	High power top emitting vertical cavity surface emitting laser	12/587753	10/13/09
Oclaro Technology Limited	USA	Low creep metallization for optoelectronic applications	12/028055	2/8/08
Oclaro Technology Limited	USA	Optoelectronic device and method of operating optoelectronic device	12/059111	3/31/08
Oclaro Technology Limited	USA	VCSEL with non- circular mesa and current confinement aperture for higher- order lateral mode emission	13/121885	3/30/11
Oclaro Technology Limited	USA	Driving mechanism for liquid crystal based optical device	12/497892	7/6/09

Oclaro Technology Limited	USA	Liquid crystal optical device configured to reduce polarization dependent loss and polarization mode dispersion	12/475116	5/29/09
Oclaro Technology Limited	USA	Optical amplifiers using switched filter devices	12/584919	9/15/09
Oclaro Technology Ltd.	USA	Method and system for deploying an optical demodulator arrangement in a communications network	12/906554	10/18/10
Oclaro Technology Ltd.	USA	Laser system with highly linear output	12/993617	11/19/10
Oclaro Technology Ltd.	USA	Resonant frequency stabilization using a passive mechanism	12/777169	5/10/10
Oclaro Technology Limited	USA	Liquid crystal optical switch configured to reduce polarization dependent loss	12/433769	4/30/09
Oclaro Technology Limited	USA	Multi-Pole Optical Signal Switch	13/153920	6/6/11
Oclaro Technology Limited	USA	Integrated fiber, sensor and lens arrays and their applications for optical networks	7058253	6/6/06
Oclaro Technology Limited	USA	Spatial light modulator with hidden comb actuator	6914711	7/5/05
Oclaro Technology Limited	USA	Delay line interferometer with liquid crystal tuning element	12/860639	8/20/10

Oclaro Technology Limited	USA	Tunable optical filters with liquid crystal resonators	13/091103	4/20/11
Oclaro Technology Limited	USA	Component temperature control	12/942442	11/9/10
Oclaro Technology Limited	USA	Optical crosstalk compensation	12/982559	12/30/10
Oclaro Technology Limited	USA	Maintenance line switching in Raman amplified systems	61/446865	2/25/11
Oclaro Technology Limited	USA	TDC bullet	61/494125	6/7/11

# **Patent Licenses**

None reported.

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**RECORDED: 06/05/2012**