PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3944297

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	PATENT SECURITY AGREEMENT

CONVEYING PARTY DATA

Name	Execution Date
CAS MEDICAL SYSTEMS, INC.	06/30/2016

RECEIVING PARTY DATA

Name:	SOLAR CAPITAL LTD.
Street Address:	500 PARK AVENUE, 3RD FLOOR
City:	NEW YORK
State/Country:	NEW YORK
Postal Code:	10022

PROPERTY NUMBERS Total: 31

Property Type	Number
Patent Number:	6456862
Patent Number:	7072701
Patent Number:	8078250
Patent Number:	8788004
Patent Number:	8396526
Patent Number:	8923943
Patent Number:	8077312
Patent Number:	8761851
Patent Number:	8965472
Patent Number:	7047054
Patent Number:	7313427
Patent Number:	8428674
Patent Number:	8391942
Patent Number:	9364175
Patent Number:	8897848
Patent Number:	9125563
Patent Number:	D694133
Application Number:	14549135
Application Number:	13383391
Application Number:	13985232
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PATENT REEL: 039221 FRAME: 0004

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Property Type	Number
Application Number:	13543180
Application Number:	14335458
Application Number:	13758511
Application Number:	14041733
Application Number:	14102004
Application Number:	14651160
Application Number:	14947809
Application Number:	62279470
Application Number:	62324125
Application Number:	62318527
Application Number:	15172992

CORRESPONDENCE DATA

Fax Number: (714)755-8290

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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 714-540-1235

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Address Line 4: COSTA MESA, CALIFORNIA 92626

ATTORNEY DOCKET NUMBER:	054439-0011
NAME OF SUBMITTER:	ANNA T KWAN
SIGNATURE:	/atk/
DATE SIGNED:	06/30/2016

Total Attachments: 7

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PATENT SECURITY AGREEMENT

This **PATENT SECURITY AGREEMENT**, dated as of June 30, 2016, is made by each of the entities listed on the signature pages hereof (each a "*Grantor*" and, collectively, the "*Grantors*"), in favor of Solar Capital Ltd. ("*Solar*"), as administrative and collateral agent (in such capacity, together with its successors and permitted assigns, the "*Agent*") for the Lenders (as defined in the Loan and Security Agreement referred to below).

WITNESSETH:

WHEREAS, pursuant to the Loan and Security Agreement, dated as of the date hereof (as the same may be amended, restated, supplemented or otherwise modified from time to time, the "Loan and Security Agreement"), among CAS Medical Systems, Inc. ("Borrower"), the other loan parties party thereto from time to time, the Lenders from time to time party thereto and the Agent, the Lenders have severally agreed to make Loans to Borrower upon the terms and subject to the conditions set forth therein; and

WHEREAS, all of the Grantors are party to the Loan and Security Agreement pursuant to which the Grantors are required to execute and deliver this Patent Security Agreement.

NOW, THEREFORE, in consideration of the premises and to induce the Lenders and the Agent to enter into the Loan and Security Agreement, and to induce the Lenders to make the Loans to Borrower thereunder, each Grantor hereby agrees with the Agent as follows:

- Section 1. <u>Defined Terms</u>. Capitalized terms used herein without definition are used as defined in the Loan and Security Agreement.
- Section 2. <u>Grant of Security Interest in Patent Collateral</u>. Each Grantor, as collateral security for the prompt and complete payment and performance when due (whether at stated maturity, by acceleration or otherwise) of the Obligations of such Grantor, hereby mortgages, pledges and hypothecates to the Agent for the benefit of Lenders, and grants to the Agent for the benefit of Lenders a Lien on and security interest in, all of its right, title and interest in, to and under the following Collateral of such Grantor (the "*Patent Collateral*"):
- (a) all rights, title and interests arising under any Requirement of Law in or relating to letters patent and applications therefor ("*Patents*") including, without limitation, those referred to on <u>Schedule 1</u> hereto;
- (b) all reissues, reexaminations, continuations, continuations-in-part, divisionals, renewals and extensions of the foregoing; and
- (c) all income, royalties, proceeds and liabilities at any time due or payable or asserted under and with respect to any of the foregoing, including, without limitation, all rights to sue and recover at law or in equity for any past, present and future infringement, misappropriation, dilution, violation or other impairment thereof.
- Section 3. <u>Loan and Security Agreement</u>. The security interest granted pursuant to this Patent Security Agreement is granted in conjunction with the security interest granted to the

Agent pursuant to the Loan and Security Agreement and each Grantor hereby acknowledges and agrees that the rights and remedies of the Agent with respect to the security interest in the Patent Collateral made and granted hereby are more fully set forth in the Loan and Security Agreement, the terms and provisions of which are incorporated by reference herein as if fully set forth herein.

- Section 4. <u>Grantor Remains Liable</u>. Each Grantor hereby agrees that, anything herein to the contrary notwithstanding, such Grantor shall retain full and complete responsibility for the prosecution, defense, enforcement or any other necessary or desirable actions in connection with their Patents subject to a security interest hereunder.
- Section 5. <u>Counterparts</u>. This Patent Security Agreement may be executed in any number of counterparts and by different parties in separate counterparts, each of which when so executed shall be deemed to be an original and all of which taken together shall constitute one and the same agreement. Signature pages may be detached from multiple separate counterparts and attached to a single counterpart.
- Section 6. <u>Governing Law</u>. This Patent Security Agreement and the rights and obligations of the parties hereto shall be governed by, and construed and interpreted in accordance with, the law of the State of New York.

[SIGNATURE PAGES FOLLOW]

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IN WITNESS WHEREOF, each Grantor has caused this Patent Security Agreement to be executed and delivered by its duly authorized officer as of the date first set forth above.

Very truly yours,

CAS MEDICAL SYSTEMS, INC., as Grantor

By:

ria... XX

[Signature Page to Patent Security Agreement (CAS Medical)]

ACCEPTED AND AGREED

as of the date first above written:

SOLAR CAPITAL LTD., as Agent

By;

Name: Anniany J. Stepino Title: Anniany J. Stepino

REEL: 039221 FRAME: 0009

SCHEDULE I TO PATENT SECURITY AGREEMENT

Patent Registrations

(See Attached)

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Title	App. No.	Patent No.	Status
METHOD FOR NON-INVASIVE SPECTROPHOTOMETRIC BLOOD OXYGENATION MONITORING	09/845,146	6,456,862	Issued
METHOD FOR SPECTROPHOTOMETRIC BLOOD OXYGENATION MONITORING	10/628,068	7072701	Issued
METHOD FOR SPECTROPHOTOMETRIC BLOOD OXYGENATION MONITORING	11/376,894	8078250	Issued
METHOD FOR SPECTROPHOTOMETRIC BLOOD OXYGENATION MONITORING	13/323,479	8788004	Issued
IMPROVED METHOD FOR SPECTROPHOTOMETRIC BLOOD OXYGENATION MONITORING	11/914,074	8396526	Issued
IMPROVED METHOD FOR SPECTROPHOTOMETRIC BLOOD OXYGENATION MONITORING	13/793,964	8923943	Issued
CALIBRATION DEVICE FOR A SPECTROPHOTOMETRIC SYSTEM	12/092,778	8077312	Issued
INDICATORS FOR A SPECTROPHOTOMETRIC SYSTEM	12/096,132	8761851	Issued
METHOD AND APPARATUS FOR SPECTROPHOTOMETIC BASED OXIMETRY	12/090,671	8,965,472	Issued
LASER DIODE OPTICAL TRANSDUCER ASSEMBLY FOR NON-INVASIVE SPECTROPHOTOMETRIC BLOOD OXYGENATION	09/951,221	7047054	Issued
LASER DIODE OPTICAL TRANSDUCER ASSEMBLY FOR NON-INVASIVE SPECTROPHOTOMETRIC BLOOD OXYGENATION	11/384,615	7313427	Issued
APPARATUS FOR SPECTROPHOTOMETRIC BASED OXIMETRY	12/514,955	8428674	Issued
METHOD AND APPARATUS FOR DETERMINING CEREBRAL DESATURATION IN PATIENTS UNDERGOING DEEP HYPOTHERMIC	12/574,412	8391942	Issued
METHOD FOR SPECTROPHOTOMETRIC BLOOD OXYGENATION MONITORING	13/511,928	9,364,175	Issued

NON-INVASIVE OPTICAL METHOD TO DETERMINE CARDIAC OUTPUT BY NEAR-INFRARED SPECTROSCOPY	13/228,183	8897848	Issued
SIGNAL MONITORING SYSTEM INCLUDING EMI-SHIELDING COUPLER	14/061,308	9,125,563	Issued
NIRS SENSOR ASSEMBLY	29/429,448	D694,133	Issued
METHOD FOR SPECTROPHOTOMETRIC BLOOD OXYGENATION MONITORING	14/549,135		Pending
METHOD FOR SPECTROPHOTOMETRIC BLOOD OXYGENATION MONITORING OF THE LOWER GASTROINTESTINAL TRACT	13/383,391		Pending
NIRS SENSOR ASSEMBLY INCLUDING ELECTRICALLY CONDUCTIVE AND OPTICALLY TRANSPARENT EMI SHIELDING	13/985,232		Pending
APPARATUS FOR MEASURING THE LUMINANCE AND TEMPERATURE OF A LIGHT SOURCE	13/543,180		Pending
IMPROVED METHOD FOR SPECTROPHOTOMETRIC BLOOD OXYGENATION MONITORING	14/335,458		Pending
METHOD AND APPARATUS FOR MONITORING A BLOOD OXYGEN SATURATION LEVEL	13/758,511		Pending
SYSTEMS AND METHODS FOR SPECTROSCOPIC MEASUREMENT OF A CHARACTERISTIC OF BIOLOGICAL TISSUE	14/041,733		Pending
NIRS SENSOR ASSEMBLY INCLUDING EMI SHIELDING	14/102,004		Pending
METHOD AND APPARATUS FOR SPECTROPHOTOMETRICALLY DETERMINING A BLOOD OXYGEN	14/651,160		Pending
SPECTROPHOTOMETRIC SENSOR	14/947,809		Pending
SHIELDED, FOLDED CONNECTOR FOR A SENSOR	62/279,470		Pending
SHIELDED, FOLDED CONNECTOR FOR A SENSOR	62/324,125		Pending
Method of Non-Invasively Measuring Cerebral Circulatory Hemoglobin and Hemodynamics	62/318,527		Pending
METHOD FOR SPECTROPHOTOMETRIC BLOOD OXYGENATION MONITORING	15/172,992		Pending

RECORDED: 06/30/2016