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TRANSMITTAL FOR POWER OF ATTORNEY TO ONE OR MORE REGISTERED PRACTITIONERS

NOTE: This form is to be submitted with the Power of Attorney by Applicant form (PTO/AIA/82B) to identify the application to which the Power of Attorney is directed, in accordance with 37 CFR 1.5, unless the application number and filing date are identified in the Power of Attorney by Applicant form. If neither form PTO/AIA/82A nor form PTO/AIA82B identifies the application to which the Power of Attorney is directed, the Power of Attorney will not be recognized in the application. Application Number Unknown Herewith Filing Date Ammar Al-Ali First Named Inventor Title BODY WORN MOBILE MEDICAL PATIENT MONITOR Unknown Art Unit Unknown Examiner Name MASIMO.317C9 Attorney Docket Number SIGNATURE of Applicant or Patent Practitioner Signature /Scott Cromar/ Date (Optional) Registration Name Scott Cromar 65066 Number Title (if Applicant is a iuristic entity) Applicant Name (if Applicant is a juristic entity) NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. If more than one applicant, use multiple forms. *Total of <u>1</u> forms are submitted.

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450**.

	POWER O	FATTORN	IEY BY	' APPL	ICANT.	
I hereby revoke al	l previous powers of at	torney given in the	application ic	lentified in th	he attached tr	ansmittal letter.
I hereby appoint transact all bus in the attached OR	nt Practitioner(s) associa siness in the United State I transmittal letter (form P nt Practitioner(s) named	ed with the following s Patent and Tradem TO/AIA/82A or equiv	Customer Nur ark Office con alent): 6	nber as my/o nected therev 4735 ht(s), and to tr	ur attorney(s) o with for the appl	r agent(s), and to ication referenced
	Patent and Trademark Of er (form PTO/AIA/82A or		with for the app	plication refer	enced in the att	ached
	Name	Registration Number		Name		Registration Number
	or change the corre		<u> </u>	11 12 1		
OR The address OR Firm or Individual Name Address	associated with Customer N	umber:				
71007000						
City			State		Zip	
Country		·····				
Telephone			Email			
I am the Applicant:	int Inventor entative of a Deceased	or Legally Incapacita	ted Inventor			
Assignee or F	Person to Whom the Inv	entor is Under an C	bligation to A	ssign		
Person Who	Otherwise Shows Suffic application or is concu	ient Proprietary Inte	erest (e.g., a p	etition unde	r 37 CFR 1.46	(b)(2) was
		SIGNATURE of Appli	cant for Patent			
Signature				Date	$[\gamma_{12}]$	CZ.
Name	Thomas McClenahan			Telephone	(949) 297-7000	Sec. 2
Title and Company	Executive Vice President and C	ienerał Counsel, Masimo Co	prporation			
	form must be signed by the nultiple forms for more than			33. See 37 CF	R 1.4 for signatu	re requirements and
Total of 1	forms are submitted	đ.				
This collection of informatio USPTO to process) an app	n is required by 37 CFR 1.31, 1. lication. Confidentiality is govern	32 and 1.33. The informatio ed by 35 U S G, 122 and 3	n is required to obt CFR 1 11 and 1 1	ain or retain a be	nefit by the public w	hich is to file (and by th

including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary desending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Degartment of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES ON COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1460.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

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REQUEST FOR FIRST ACTION INTERVIEW (FULL PILOT PROGRAM)					
Attorney Docket Number: MASIMO.317C9	Application Number (if known):	Filing date: Herewith			
First Named Ammar Al-Ali					
APPLICANT HEREBY REQUESTS APPLICATION. See Instruction Shee 1. The application must contain th	et on page 2.				
 The application must contain three (3) or fewer independent claims and twenty (20) or fewer total claims. The application must not contain any multiple dependent claims. By filing this request: Applicant is agreeing to make an election without traverse if the Office determines that the claims are not obviously directed to a single invention; and Applicant is agreeing not to request for a refund of the search fee and any excess claims fee paid in the application after the mailing or notification of the pre-interview communication prepared by the examiner. Other attachments:					
_{Signature} /Scott Cromar/		_{Date} 2017-04-27			
Name (Print/Typed) Scott Cromar 65066 Registration Number					
<u>Note</u>: This form must be signed in accordance Submit multiple forms if more than one signate		signature requirements and certifications.			
*Total of forms are submitte	d.				

The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

- 1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
- 2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
- A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
- 4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
- 5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
- 6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
- 7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
- 8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
- 9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

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REQUEST FOR FIRST ACTION INTERVIEW (FULL PILOT PROGRAM)						
Attorney Docket Number: MASIMO.317C9	Attomey Docket NASIMO.317C9 Application Number (if known): Filing date: Herewith					
First Named Ammar AI-AII						
APPLICANT HEREBY REQUESTS APPLICATION. See Instruction Shee 1. The application must contain th	et on page 2.					
 The application must contain three (3) or fewer independent claims and twenty (20) or fewer total claims. The application must not contain any multiple dependent claims. By filing this request: Applicant is agreeing to make an election without traverse if the Office determines that the claims are not obviously directed to a single invention; and Applicant is agreeing not to request for a refund of the search fee and any excess claims fee paid in the application after the mailing or notification of the pre-interview communication prepared by the examiner. Other attachments:						
_{Signature} /Scott Cromar/		_{Date} 2017-04-27				
Name (Print/Typed) Scott Cromar 65066						
Note: This form must be signed in accordance Submit multiple forms if more than one signate						
Total of forms are submitte	d.					

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- 5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
- 6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
- 7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
- 8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
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CERTIFICATION	AND	REQUEST	FOR	PRIORITIZED	EXAMINATION
L	INDE	R 37 CFR 1	1.102	(e) (Page 1 of 1)	

First Named Inventor:	Ammar Al-Ali	Nonprovisional Application Number (if known):	Herewith
Title of Invention:	BODY WORN MOBILE ME	DICAL PATIENT MONITC	R

APPLICANT HEREBY CERTIFIES THE FOLLOWING AND REQUESTS PRIORITIZED EXAMINATION FOR THE ABOVE-IDENTIFIED APPLICATION.

- The processing fee set forth in 37 CFR 1.17(i)(1) and the prioritized examination fee set forth in 37 CFR 1.17(c) have been filed with the request. The publication fee requirement is met because that fee, set forth in 37 CFR 1.18(d), is currently \$0. The basic filing fee, search fee, and examination fee are filed with the request or have been already been paid. I understand that any required excess claims fees or application size fee must be paid for the application.
- 2. I understand that the application may not contain, or be amended to contain, more than four independent claims, more than thirty total claims, or any multiple dependent claims, and that any request for an extension of time will cause an outstanding Track I request to be dismissed.
- 3. The applicable box is checked below:
 - I. **Original Application (Track One) Prioritized Examination under § 1.102(e)(1)**
- i. (a) The application is an original nonprovisional utility application filed under 35 U.S.C. 111(a). This certification and request is being filed with the utility application via EFS-Web.
 ---OR---
 - (b) The application is an original nonprovisional plant application filed under 35 U.S.C. 111(a). This certification and request is being filed with the plant application in paper.
- ii. An executed inventor's oath or declaration under 37 CFR 1.63 or 37 CFR 1.64 for each inventor, <u>or</u> the application data sheet meeting the conditions specified in 37 CFR 1.53(f)(3)(i) is filed with the application.
 - II. Request for Continued Examination Prioritized Examination under § 1.102(e)(2)
- i. A request for continued examination has been filed with, or prior to, this form.
- ii. If the application is a utility application, this certification and request is being filed via EFS-Web.
- iii. The application is an original nonprovisional utility application filed under 35 U.S.C. 111(a), or is a national stage entry under 35 U.S.C. 371.
- iv. This certification and request is being filed prior to the mailing of a first Office action responsive to the request for continued examination.
- v. No prior request for continued examination has been granted prioritized examination status under 37 CFR 1.102(e)(2).

_{Signature} /Scott Cromar/	_{Date} 2017-04-27		
Name (Print/Typed) Scott Cromar	Practitioner Registration Number		
<u>Note</u> : This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for Submit multiple forms if more than one signature is required.*	or signature requirements and certifications.		
\checkmark *Total of <u>1</u> forms are submitted.			

Privacy Act Statement

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 request involving an individual, to whom the record pertains, when the individual has requested assistance from
 the Member with respect to the subject matter of the record.
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- 9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

RESCISSION OF ANY PRIOR DISCLAIMERS AND REQUEST TO REVISIT ART

Inventor	:	Ammar Al-Ali
App. No	:	Unknown
Filed	:	Herewith
For	:	BODY WORN MOBILE MEDICAL PATIENT MONITOR
Examiner	:	Unknown
Art Unit	:	Unknown
Conf #	:	Unknown

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

The claims of the present application are different and possibly broader in scope than the claims pursued in the parent application(s). To the extent any prior amendments or characterizations of the scope of any claim or referenced art could be construed as a disclaimer of any subject matter supported by the present disclosure, Applicant hereby rescinds and retracts such disclaimer. Accordingly, the references previously considered in the parent application(s) may need to be re-visited.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Knobbe, Martens, Olson & Bear, LLP Respectfully submitted,

Dated: April 27, 2017

/Scott Cromar/ Scott A. Cromar Registration No. 65,066 Attorney of Record Customer No. 64735 (949) 760-0404

Electronic Patent /	Application Fee	e Transmit	tal		
Application Number:					
Filing Date:					
Title of Invention:	BODY WORN MOBILE	MEDICAL PATIEN	NT MONITOR		
First Named Inventor/Applicant Name:	Ammar Al-Ali				
Filer:	Scott Cromar/Frances Tsai				
Attorney Docket Number:	MASIMO.317C9				
Filed as Large Entity					
Filing Fees for Track I Prioritized Examination - Nonp	rovisional Applicatio	on under 35 US	SC 111(a)		
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)	
Basic Filing:					
UTILITY APPLICATION FILING	1011	1	280	280	
UTILITY SEARCH FEE	1111	1	600	600	
UTILITY EXAMINATION FEE	1311	1	720	720	
REQUEST FOR PRIORITIZED EXAMINATION	1817	1	4000	4000	
Pages:					
Claims:					
Miscellaneous-Filing:					

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
PUBL. FEE- EARLY, VOLUNTARY, OR NORMAL	1504	1	0	0
PROCESSING FEE, EXCEPT PROV. APPLS.	1830	1	140	140
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
	Tot	al in USD	(\$)	5740

Electronic Ac	Electronic Acknowledgement Receipt					
EFS ID:	29053023					
Application Number:	15499619					
International Application Number:						
Confirmation Number:	3723					
Title of Invention:	BODY WORN MOBILE MEDICAL PATIENT MONITOR					
First Named Inventor/Applicant Name:	Ammar Al-Ali					
Customer Number:	64735					
Filer:	Scott Cromar/Angel Zehnder					
Filer Authorized By:	Scott Cromar					
Attorney Docket Number:	MASIMO.317C9					
Receipt Date:	27-APR-2017					
Filing Date:						
Time Stamp:	18:01:46					
Application Type:	Utility under 35 USC 111(a)					

Payment information:

Submitted with Payment	yes				
Payment Type	CARD				
Payment was successfully received in RAM	\$5740				
RAM confirmation Number	042817INTEFSW18030400				
Deposit Account	111410				
Authorized User	Angel Zehnder				
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:					
37 CFR 1.16 (National application filing, search, and examination fees)					

37 CFR 1.17 (Patent application and reexamination processing fees)

File Listing	:				
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
			1823518		
1	Application Data Sheet	ADS_MASIMO317C9.PDF	c8ff6f6e2d8a6bfc5a0dd93ecc9332bbbe0f1 8ee	no	9
Warnings:	ļ		<u> </u>		
Information:					
			108173		
2		Spec_MASIMO317C9.pdf	83a78f9dd83985fbe048800c32046cf5f477f 45c	yes	21
	 Multip	art Description/PDF files in	.zip description		
	Document Des	Start	E	nd	
	Specificati	1	1	9	
	Claims	20	20		
	Abstract	21	21		
Warnings:					
Information:					
			816251		
3	Drawings-only black and white line drawings	Figs_MASIMO317C9.PDF	3557c4962a4fc55d215b488e12479173a7e ef668	no	17
Warnings:			ļ		
Information:					
			78488		1
4	Oath or Declaration filed	Decl_MASIMO317C9.PDF	1d45b8cab6459a86689331258159f1199d02 011f6	no	
Warnings:					
Information:					
			517193		
5	Power of Attorney	POA_MASIMO317C9.pdf		no	2

Warnings:									
Information:									
			131932						
6	First Action Interview - Enrollment Request	FAI_MASIMO317C9.pdf	1a9c548170bc9957b1c5ae7d1246be4308b 9aab5	no	2				
Warnings:			•						
Information:									
			116491						
7	TrackOne Request	Track1_MASIMO317C9.pdf	bbd9fdb8dec84184fa4e361f158bda8b734 5083e	no	2				
Warnings:			•						
Information:									
			16122						
8	8 Miscellaneous Incoming Letter Resc_MASIMO317C9.pdf		27c9fd33e138437b6fc7db1fa7364689aacS 3a95	no	1				
Warnings:	Warnings:								
Information:									
	Fee Worksheet (SB06)		40084						
9		fee-info.pdf	c7ec42b6b5126506ff6f53dcdbcd02958d1c 2dd7	no	2				
Warnings:			•						
Information:									
		Total Files Size (in bytes)	36	48252					
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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	MASIMO.317C9			
		Application Number				
Title of Invention	BODY WORN MOBILE MEDICAL PATIENT MONITOR					
The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76. This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the						

document may be printed and included in a paper filed application.

Secrecy Order 37 CFR 5.2:

Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)

Inventor Information:

Inventor 1 Remove											
Legal Name											
Prefix	Give	en Name			Middle Name			Family	Name		Suffix
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	All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the Add button.										

Correspondence Information:

Enter either Customer Number or complete the Correspondence Information section below. For further information see 37 CFR 1.33(a).					
An Address is being provided for the correspondence Information of this application.					
Customer Number	64735				
Email Address	efiling@knobbe.com	Add Email Remove Email			

Application Information:

Title of the Invention	ODY WORN MOBILE MEDICAL PATIENT MONITOR				
Attorney Docket Number	MASIMO.317C9 Small Entity Status Claimed				
Application Type	Nonprovisional	Nonprovisional			
Subject Matter	Utility 🗸				
Total Number of Drawing	Sheets (if any) 17	Suggested Figure for Publication (if any)			

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Application Da	ta Sheet 37 CER 1 76	Attorney Docket Number	MASIMO.317C9
Application Data Sheet 37 CFR 1.76		Application Number	
Title of Invention	BODY WORN MOBILE MEDI	CAL PATIENT MONITOR	

Filing By Reference:

Only complete this section when filing an application by reference under 35 U.S.C. 111(c) and 37 CFR 1.57(a). Do not complete this section if application papers including a specification and any drawings are being filed. Any domestic benefit or foreign priority information must be provided in the appropriate section(s) below (i.e., "Domestic Benefit/National Stage Information" and "Foreign Priority Information").

For the purposes of a filing date under 37 CFR 1.53(b), the description and any drawings of the present application are replaced by this reference to the previously filed application, subject to conditions and requirements of 37 CFR 1.57(a).

Application number of the previously filed application	Filing date (YYYY-MM-DD)	Intellectual Property Authority or Country	

Publication Information:

Request Early Publication (Fee required at time of Request 37 CFR 1.219)

Request Not to Publish. I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application has not and will not be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing.

Representative Information:

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32). Either enter Customer Number or complete the Representative Name section below. If both sections are completed the customer Number will be used for the Representative Information during processing.

Please Select One:	Customer Number	US Patent Practitioner	 Limited Recognition (37 CFR 11.9)
Customer Number	64735		

Domestic Benefit/National Stage Information:

 This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, 365(c), or 386(c) or indicate

 National Stage entry from a PCT application. Providing benefit claim information in the Application Data Sheet constitutes

 the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78.

 When referring to the current application, please leave the "Application Number" field blank.

 Prior Application Status
 Pending

 Image: Pending in the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78.

 When referring to the current application, please leave the "Application Number" field blank.

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Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)	
	Continuation of	15/448989	2017-03-03	

PTO/AIA/14 (11-15)

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Application Data Sheet 37 CFR 1.76										
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Title of Invention	BODY	WORN MOBILE	MEDI	CAL PATIENT	ΓN	MONITOR				
Prior Application Status Abandoned									Re	move
Application N	umber	Cont	inuity ⁻	Туре		Prior Application Number (YYYY-MM-DD)				
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Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the Add button.										

Foreign Priority Information:

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Application Da	ta Sheet 37 CER 1 76	Attorney Docket Number	MASIMO.317C9
Application Data Sheet 37 CFR 1.76		Application Number	
Title of Invention	BODY WORN MOBILE MEDI	CAL PATIENT MONITOR	

This section allows for the applicant to claim priority to a foreign application. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55. When priority is claimed to a foreign application that is eligible for retrieval under the priority document exchange program (PDX)ⁱ the information will be used by the Office to automatically attempt retrieval pursuant to 37 CFR 1.55(i)(1) and (2). Under the PDX program, applicant bears the ultimate responsibility for ensuring that a copy of the foreign application is received by the Office from the participating foreign intellectual property office, or a certified copy of the foreign priority application is filed, within the time period specified in 37 CFR 1.55(g)(1).

			Remove
Application Number	Country ⁱ	Filing Date (YYYY-MM-DD)	Access Code ⁱ (if applicable)
Additional Foreign Priority Add button.	Add		

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications

This application (1) claims priority to or the benefit of an application filed before March 16, 2013 and (2) also contains, or contained at any time, a claim to a claimed invention that has an effective filing date on or after March 16, 2013.

NOTE: By providing this statement under 37 CFR 1.55 or 1.78, this application, with a filing date on or after March 16, 2013, will be examined under the first inventor to file provisions of the AIA.

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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	MASIMO.317C9
		Application Number	
Title of Invention	BODY WORN MOBILE MEDI	CAL PATIENT MONITOR	

Authorization or Opt-Out of Authorization to Permit Access:

When this Application Data Sheet is properly signed and filed with the application, applicant has provided written authority to permit a participating foreign intellectual property (IP) office access to the instant application-as-filed (see paragraph A in subsection 1 below) and the European Patent Office (EPO) access to any search results from the instant application (see paragraph B in subsection 1 below).

Should applicant choose not to provide an authorization identified in subsection 1 below, applicant <u>must opt-out</u> of the authorization by checking the corresponding box A or B or both in subsection 2 below.

NOTE: This section of the Application Data Sheet is **ONLY** reviewed and processed with the **INITIAL** filing of an application. After the initial filing of an application, an Application Data Sheet cannot be used to provide or rescind authorization for access by a foreign IP office(s). Instead, Form PTO/SB/39 or PTO/SB/69 must be used as appropriate.

1. Authorization to Permit Access by a Foreign Intellectual Property Office(s)

A. <u>Priority Document Exchange (PDX)</u> - Unless box A in subsection 2 (opt-out of authorization) is checked, the undersigned hereby <u>grants the USPTO authority</u> to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the State Intellectual Property Office of the People's Republic of China (SIPO), the World Intellectual Property Organization (WIPO), and any other foreign intellectual property office participating with the USPTO in a bilateral or multilateral priority document exchange agreement in which a foreign application claiming priority to the instant patent application is filed, access to: (1) the instant patent application-as-filed and its related bibliographic data, (2) any foreign or domestic application to which priority or benefit is claimed by the instant application and its related bibliographic data, and (3) the date of filing of this Authorization. See 37 CFR 1.14(h) (1).

B. <u>Search Results from U.S. Application to EPO</u> - Unless box B in subsection 2 (opt-out of authorization) is checked, the undersigned hereby <u>grants the USPTO authority</u> to provide the EPO access to the bibliographic data and search results from the instant patent application when a European patent application claiming priority to the instant patent application is filed. See 37 CFR 1.14(h)(2).

The applicant is reminded that the EPO's Rule 141(1) EPC (European Patent Convention) requires applicants to submit a copy of search results from the instant application without delay in a European patent application that claims priority to the instant application.

2. Opt-Out of Authorizations to Permit Access by a Foreign Intellectual Property Office(s)

A. Applicant **DOES NOT** authorize the USPTO to permit a participating foreign IP office access to the instant application-as-filed. If this box is checked, the USPTO will not be providing a participating foreign IP office with any documents and information identified in subsection 1A above.

B. Applicant **DOES NOT** authorize the USPTO to transmit to the EPO any search results from the instant patent application. If this box is checked, the USPTO will not be providing the EPO with search results from the instant application.

NOTE: Once the application has published or is otherwise publicly available, the USPTO may provide access to the application in accordance with 37 CFR 1.14.

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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	MASIMO.317C9
		Application Number	
Title of Invention	BODY WORN MOBILE MEDI	CAL PATIENT MONITOR	

Applicant Information:

Applicant 1					Remove
If the applicant is the invento The information to be provid 1.43; or the name and addre who otherwise shows sufficient applicant under 37 CFR 1.46	ed in this se ss of the as ent proprieta (assignee,	naining joint inventor or invent oction is the name and address signee, person to whom the ir ary interest in the matter who i person to whom the inventor more joint inventors, then the	s of the legal representa iventor is under an obli s the applicant under 3 is obligated to assign, o	ative who is gation to as 7 CFR 1.46 or person w	the applicant under 37 CFR sign the invention, or person . If the applicant is an ho otherwise shows sufficient
Assignee Legal Representative under 35 U.S.C. 117 Joint Inventor					Joint Inventor
Person to whom the inve	ntor is obliga	nted to assign.	Person who sh	nows sufficie	ent proprietary interest
If applicant is the legal rep	presentativ	e, indicate the authority to	file the patent applica	ation, the ir	nventor is:
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Name of the Deceased o	r Legally Ir	capacitated Inventor:			
If the Applicant is an Org	anization	check here.			
Organization Name	MASIMO C	ORPORATION			
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Address 1	52 Disc	overy			
Address 2			_		
City	Irvine		State/Province	CA	
Country US			Postal Code	92618	
Phone Number			Fax Number		
Email Address					

Assignee Information including Non-Applicant Assignee Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

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Application Data Sheet 37 CFR 1.76		Application N					
Title of Invention BODY WORN MOBILE MEDICAL PATIENT MONITOR							
Assignee 1							
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NOTE: This Application Data Sheet must be signed in accordance with 37 CFR 1.33(b). However, if this Application Data Sheet is submitted with the INITIAL filing of the application and either box A or B is <u>not</u> checked in subsection 2 of the "Authorization or Opt-Out of Authorization to Permit Access" section, then this form must also be signed in accordance with 37 CFR 1.14(c). This Application Data Sheet <u>must</u> be signed by a patent practitioner if one or more of the applicants is a juristic entity (e.g., corporation or association). If the applicant is two or more joint inventors, this form must be signed by a patent practitioner, <u>all</u> joint inventors who are the applicant, or one or more joint inventor-applicants who have been given power of attorney (e.g., see USPTO Form PTO/AIA/81) on behalf of <u>all</u> joint inventor-applicants. See 37 CFR 1.4(d) for the manner of making signatures and certifications.							
Signature /Scott	Cromar/				Date (YYYY-MM-D	D) 2017-04-27
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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	MASIMO.317C9
		Application Number	
Title of Invention	BODY WORN MOBILE MEDI		

This collection of information is required by 37 CFR 1.76. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 23 minutes to complete, including gathering, preparing, and submitting the completed application data sheet form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450**.

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The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

- 1 The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
- 2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
- 3 A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
- 4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
- 5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent CooperationTreaty.
- 6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
- 7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
- 8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
- 9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

BODY WORN MOBILE MEDICAL PATIENT MONITOR

REFERENCE TO RELATED APPLICATION

[0001] The present application is a continuation of U.S. Patent Application No. 15/448,989, filed on March 3, 2017, entitled "Physiological Measurement Communications Adapter," which is a continuation of U.S. Patent Application No. 14/815,232, filed on July 31, 2015, entitled "Physiological Measurement Communications Adapter," which is a continuation of U.S. Patent Application No. 14/217,788, filed on March 18, 2014, entitled "Wrist-Mounted Physiological Measurement Device," now U.S. Patent No. 9,113,832, which is a continuation of U.S. Patent Application No. 14/037,137, filed on September 25, 2013, entitled "Physiological Measurement Communications Adapter," now U.S. Patent No. 9,113,831, which is a continuation of U.S. Patent Application No. 12/955,826, filed on November 29, 2010, entitled "Physiological Measurement Communications Adapter," now U.S. Patent No. 8,548,548, which is a continuation of U.S. Patent Application No. 11/417,006, filed on May 3, 2006, entitled "Physiological Measurement Communications Adapter," now U.S. Patent No. 7,844,315, which claims priority benefit under 35 U.S.C. § 120 to, and is a continuation of, U.S. Patent Application No. 11/048,330, filed February 1, 2005, entitled "Physiological Measurement Communications Adapter," now U.S. Patent No. 7,844,314, which is a continuation of U.S. Patent Application No. 10/377,933, entitled "Physiological Measurement Communications Adapter," now U.S. Patent No. 6,850,788, which claims priority benefit under 35 U.S.C. § 119(e) from U.S. Provisional Application No. 60/367,428, filed March 25, 2002, entitled "Physiological Measurement Communications Adapter." The present application also incorporates the foregoing utility disclosures herein by reference.

BACKGROUND OF THE INVENTION

[0002] Patient vital sign monitoring may include measurements of blood oxygen, blood pressure, respiratory gas, and EKG among other parameters. Each of these physiological parameters typically requires a sensor in contact with a patient and a cable

-1-

connecting the sensor to a monitoring device. For example, FIGS. 1-2 illustrate a conventional pulse oximetry system 100 used for the measurement of blood oxygen. As shown in FIG. 1, a pulse oximetry system has a sensor 110, a patient cable 140 and a monitor 160. The sensor 110 is typically attached to a finger 10 as shown. The sensor 110 has a plug 118 that inserts into a patient cable socket 142. The monitor 160 has a socket 162 that accepts a patient cable plug 144. The patient cable 140 transmits an LED drive signal 252 (FIG. 2) from the monitor 160 to the sensor 110 and a resulting detector signal 254 (FIG. 2) from the monitor 160. The monitor 160 processes the detector signal 254 (FIG. 2) to provide, typically, a numerical readout of the patient's oxygen saturation, a numerical readout of pulse rate, and an audible indicator or "beep" that occurs in response to each arterial pulse.

[0003] As shown in FIG. 2, the sensor 110 has both red and infrared LED emitters 212 and a photodiode detector 214. The monitor 160 has a sensor interface 271, a signal processor 273, a controller 275, output drivers 276, a display and audible indicator 278, and a keypad 279. The monitor 160 determines oxygen saturation by computing the differential absorption by arterial blood of the two wavelengths emitted by the sensor emitters **212**, as is well-known in the art. The sensor interface 271 provides LED drive current 252 which alternately activates the red and IR LED emitters 212. The photodiode detector 214 generates a signal **254** corresponding to the red and infrared light energy attenuated from transmission through the patient finger 10 (FIG. 1). The sensor interface 271 also has input circuitry for amplification, filtering and digitization of the detector signal 254. The signal processor 273 calculates a ratio of detected red and infrared intensities, and an arterial oxygen saturation value is empirically determined based on that ratio. The controller 275 provides hardware and software interfaces for managing the display and audible indicator 278 and keypad 279. The display and audible indicator **278** shows the computed oxygen status, as described above, and provides the pulse beep as well as alarms indicating oxygen desaturation events. The keypad 279 provides a user interface for setting alarm thresholds, alarm enablement, and display options, to name a few.

SUMMARY OF THE INVENTION

[0004] Conventional physiological measurement systems are limited by the patient cable connection between sensor and monitor. A patient must be located in the immediate vicinity of the monitor. Also, patient relocation requires either disconnection of monitoring equipment and a corresponding loss of measurements or an awkward simultaneous movement of patient equipment and cables. Various devices have been proposed or implemented to provide wireless communication links between sensors and monitors, freeing patients from the patient cable tether. These devices, however, are incapable of working with the large installed base of existing monitors and sensors, requiring caregivers and medical institutions to suffer expensive wireless upgrades. It is desirable, therefore, to provide a communications adapter that is plug-compatible both with existing sensors and monitors and that implements a wireless link replacement for the patient cable.

[0005] An aspect of a physiological measurement communications adapter comprises a sensor interface configured to receive a sensor signal. A transmitter modulates a first baseband signal responsive to the sensor signal so as to generate a transmit signal. A receiver demodulates a receive signal corresponding to the transmit signal so as to generate a second baseband signal corresponding to the first baseband signal. Further, a monitor interface is configured to communicate a waveform responsive to the second baseband signal to a sensor port of a monitor. The waveform is adapted to the monitor so that measurements derived by the monitor from the waveform are generally equivalent to measurements derivable from the sensor signal. The communications adapter may further comprise a signal processor having an input in communications with the sensor interface, where the signal processor is operable to derive a parameter responsive to the sensor signal and where the first baseband signal is responsive to the parameter. The parameter may correspond to at least one of a measured oxygen saturation and a pulse rate.

[0006] One embodiment may further comprise a waveform generator that synthesizes the waveform from a predetermined shape. The waveform generator synthesizes the waveform at a frequency adjusted to be generally equivalent to the pulse rate. The waveform may have a first amplitude and a second amplitude, and the waveform generator may be configured to adjusted the amplitudes so that measurements derived by the monitor are generally equivalent to a measured oxygen saturation.

[0007] In another embodiment, the sensor interface is operable on the sensor signal to provide a plethysmograph signal output, where the first baseband signal is responsive to the plethysmograph signal. This embodiment may further comprise a waveform modulator that modifies a decoded signal responsive to the second baseband signal to provide the waveform. The waveform modulator may comprise a demodulator that separates a first signal and a second signal from the decoded signal, an amplifier that adjusts amplitudes of the first and second signals to generate a first adjusted signal and a second adjusted signal, and a modulator that combines the first and second adjusted signals into the waveform. The amplitudes of the first and second signals to generate a first adjusted signals into the waveform. The amplitudes of the first and second signals to generate a signal second adjusted signals into the waveform. The amplitudes of the first and second signals may be responsive to predetermined calibration data for the sensor and the monitor.

[0008] An aspect of a physiological measurement communications adapter method comprises the steps of inputting a sensor signal at a patient location, communicating patient data derived from the sensor signal between the patient location and a monitor location, constructing a waveform at the monitor location responsive to the sensor signal, and providing the waveform to a monitor via a sensor port. The waveform is constructed so that the monitor calculates a parameter generally equivalent to a measurement derivable from the sensor signal.

[0009] In one embodiment, the communicating step may comprise the substeps of deriving a conditioned signal from the sensor signal, calculating a parameter signal from the conditioned signal, and transmitting the parameter signal from the patient location to the monitor location. The constructing step may comprise the substep of synthesizing the waveform from the parameter signal. In an alternative embodiment, the communicating step may comprise the substeps of deriving a conditioned signal from said sensor signal and transmitting the conditioned signal from the patient location. The constructing step may comprise the substeps of deriving a conditioned signal from said sensor signal and transmitting the conditioned signal from the patient location to the monitor location. The constructing step may comprise the substeps of demodulating the conditioned signal and remodulating the conditioned signal to generate the waveform. The providing step may comprise the substeps of inputting a monitor signal from an LED drive output of the sensor port, modulating the waveform in response to the monitor signal, and outputting the waveform on a detector input of the sensor port.

-4-

[0010] Another aspect of a physiological measurement communications adapter comprises a sensor interface means for inputting a sensor signal and outputting a conditioned signal, a transmitter means for sending data responsive to the sensor signal, and a receiver means for receiving the data. The communications adapter further comprises a waveform processor means for constructing a waveform from the data so that measurements derived by a monitor from the waveform are generally equivalent to measurements derivable from the sensor signal, and a monitor interface means for communicating the waveform to a sensor port of the monitor. The communications adapter may further comprise a signal processor means for deriving a parameter signal from the conditioned signal, where the data comprises The waveform processor means may comprise a means for the parameter signal. synthesizing the waveform from the parameter signal. The data may comprise the conditioned signal, and the waveform processor means may comprise a means for modulating the conditioned signal in response to the monitor.

BRIEF DESCRIPTION OF THE DRAWINGS

- [0011] FIG. 1 is an illustration of a prior art pulse oximetry system;
- [0012] FIG. 2 is a functional block diagram of a prior art pulse oximetry system;

[0013] FIG. 3 is an illustration of a physiological measurement communications adapter;

[0014] FIGS. 4A-B are illustrations of communications adapter sensor modules;

[0015] FIGS. 5A-C are illustrations of communications adapter monitor modules;

[0016] FIG. 6 is a functional block diagram of a communications adapter sensor module;

[0017] FIG. 7 is a functional block diagram of a communications adapter monitor module;

[0018] FIG. **8** is a functional block diagram of a sensor module configured to transmit measured pulse oximeter parameters;

[0019] FIG. **9** is a functional block diagram of a monitor module configured to received measured pulse oximeter parameters;

-5-

[0020] FIG. **10** is a functional block diagram of a sensor module configured to transmit a plethysmograph;

[0021] FIG. **11** is a functional block diagram of a monitor module configured to receive a plethysmograph;

[0022] FIG. 12 is a functional block diagram of a waveform modulator;

[0023] FIG. 13 is a functional block diagram of a sensor module configured for multiple sensors; and

[0024] FIG. **14** is a functional block diagram of a monitor module configured for multiple sensors.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Overview

[0025] FIG. 3 illustrates one embodiment of a communications adapter. FIGS. 4-5 illustrate physical configurations for a communications adapter. In particular, FIGS. 4A-B illustrate sensor module configurations and FIGS. 5A-C illustrate monitor module configurations. FIGS. 6-14 illustrate communications adapter functions. In particular, FIGS. 6-7 illustrate general functions for a sensor module and a monitor module, respectively. FIGS. 8-9 functionally illustrate a communications adapter where derived pulse oximetry parameters, such as saturation and pulse rate are transmitted between a sensor module and a monitor module. Also, FIGS. 10-12 functionally illustrate a communications adapter where a plethysmograph is transmitted between a sensor module and a monitor module. FIGS. 13-14 functionally illustrate a multiple-parameter communications adapter.

[0026] FIG. 3 illustrates a communications adapter 300 having a sensor module 400 and a monitor module 500. The communications adapter 300 communicates patient data derived from a sensor 310 between the sensor module 400, which is located proximate a patient 20 and the monitor module 500, which is located proximate a monitor 360. A wireless link 340 is provided between the sensor module 400 and the monitor module 500, replacing the conventional patient cable, such as a pulse oximetry patient cable 140 (FIG. 1). Advantageously, the sensor module 400 is plug-compatible with a conventional sensor 310. In particular, the sensor connector 318 connects to the sensor module 400 in a similar manner

as to a patient cable. Further, the sensor module **400** outputs a drive signal to the sensor **310** and inputs a sensor signal from the sensor **310** in an equivalent manner as a conventional monitor **360**. The sensor module **400** may be battery powered or externally powered. External power may be for recharging internal batteries or for powering the sensor module during operation or both.

[0027] As shown in FIG. 3, the monitor module 500 is advantageously plugcompatible with a conventional monitor 360. In particular, the monitor's sensor port 362 connects to the monitor module 500 in a similar manner as to a patient cable, such as a pulse oximetry patient cable 140 (FIG. 1). Further, the monitor module 500 inputs a drive signal from the monitor 360 and outputs a corresponding sensor signal to the monitor 360 in an equivalent manner as a conventional sensor 310. As such, the combination sensor module 400 and monitor module 500 provide a plug-compatible wireless replacement for a patient cable, adapting an existing wired physiological measurement system into a wireless physiological measurement system. The monitor module 500 may be battery powered, powered from the monitor, such as by tapping current from a monitor's LED drive, or externally powered from an independent AC or DC power source.

[0028] Although a communications adapter **300** is described herein with respect to a pulse oximetry sensor and monitor, one of ordinary skill in the art will recognize that a communications adapter may provide a plug-compatible wireless replace for a patient cable that connects any physiological sensor and corresponding monitor. For example, a communications adapter **300** may be applied to a biopotential sensor, a non-invasive blood pressure (NIBP) sensor, a respiratory rate sensor, a glucose sensor and the corresponding monitors, to name a few.

Sensor Module Physical Configurations

[0029] FIGS. 4A-B illustrate physical embodiments of a sensor module 400. FIG. 4A illustrates a wrist-mounted module 410 having a wrist strap 411, a case 412 and an auxiliary cable 420. The case 412 contains the sensor module electronics, which are functionally described with respect to FIG. 6, below. The case 412 is mounted to the wrist strap 411, which attaches the wrist-mounted module 410 to a patient 20. The auxiliary cable

420 mates to a sensor connector **318** and a module connector **414**, providing a wired link between a conventional sensor **310** and the wrist-mounted module **410**. Alternatively, the auxiliary cable **420** is directly wired to the sensor module **400**. The wrist-mounted module **410** may have a display **415** that shows sensor measurements, module status and other visual indicators, such as monitor status. The wrist-mounted module **410** may also have keys (not shown) or other input mechanisms to control its operational mode and characteristics. In an alternative embodiment, the sensor **310** may have a tail (not shown) that connects directly to the wrist-mounted module **410**, eliminating the auxiliary cable **420**.

[0030] FIG. 4B illustrates a clip-on module 460 having a clip 461, a case 462 and an auxiliary cable 470. The clip 461 attaches the clip-on module 460 to patient clothing or objects near a patient 20, such as a bed frame. The auxiliary cable 470 mates to the sensor connector 318 and functions as for the auxiliary cable 420 (FIG. 4A) of the wrist-mounted module 410 (FIG. 4A), described above. The clip-on module 460 may have a display 463 and keys 464 as for the wrist-mounted module 410 (FIG. 4A). Either the wrist-mounted module 410 or the clip-on module 460 may have other input or output ports (not shown) that download software, configure the module, or provide a wired connection to other measurement instruments or computing devices, to name a few examples.

Monitor Module Physical Configurations

[0031] FIGS. 5A-C illustrate physical embodiments of a monitor module 500. FIG. 5A illustrates a direct-connect module 510 having a case 512 and an integrated monitor connector 514. The case 512 contains the monitor module electronics, which are functionally described with respect to FIG. 7, below. The monitor connector 514 mimics that of the monitor end of a patient cable, such as a pulse oximetry patient cable 140 (FIG. 1), and electrically and mechanically connects the monitor module 510 to the monitor 360 via the monitor's sensor port 362.

[0032] FIG. 5B illustrates a cable-connect module 540 having a case 542 and an auxiliary cable 550. The case 542 functions as for the direct-connect module 510 (FIG. 5A), described above. Instead of directly plugging into the monitor 360, the cable-connect module 540 utilizes the auxiliary cable 550, which mimics the monitor end of a patient cable,

such as a pulse oximetry patient cable **140** (FIG. **1**), and electrically connects the cableconnect module **540** to the monitor sensor port **362**.

[0033] FIG. 5C illustrates a plug-in module 570 having a plug-in case 572 and an auxiliary cable 580. The plug-in case 572 is mechanically compatible with the plug-in chassis of a multiparameter monitor 370 and may or may not electrically connect to the chassis backplane. The auxiliary cable 580 mimics a patient cable and electrically connects the plug-in module 570 to the sensor port 372 of another plug-in device. A direct-connect module 510 (FIG. 5A) or a cable-connect module 540 (FIG. 5B) may also be used with a multiparameter monitor 370.

[0034] In a multiparameter embodiment, such as described with respect to FIGS. 13-14, below, a monitor module 500 may connect to multiple plug-in devices of a multiparameter monitor 370. For example, a cable-connect module 540 (FIG. 5B) may have multiple auxiliary cables 550 (FIG. 5B) that connect to multiple plug-in devices installed within a multiparameter monitor chassis. Similarly, a plug-in module 570 may have one or more auxiliary cables 580 with multiple connectors for attaching to the sensor ports 372 of multiple plug-in devices.

Communications Adapter Functions

[0035] FIGS. 6-7 illustrate functional embodiments of a communications adapter. FIG. 6 illustrates a sensor module 400 having a sensor interface 610, a signal processor 630, an encoder 640, a transmitter 650 and a transmitting antenna 670. A physiological sensor 310 provides an input sensor signal 612 at the sensor connector 318. Depending on the sensor 310, the sensor module 400 may provide one or more drive signals 618 to the sensor 310. The sensor interface 610 inputs the sensor signal 612 and outputs a conditioned signal 614. The conditioned signal 614 may be coupled to the transmitter 650 or further processed by a signal processor 630. If the sensor module configuration utilizes a signal processor 630, it derives a parameter signal 632 responsive to the sensor signal 612, which is then coupled to the transmitter 650. Regardless, the transmitter 650 inputs a baseband signal 642 that is responsive to the sensor signal 612. The transmitter 650 modulates the baseband signal 642 with a carrier to generate a transmit signal 654. The transmit signal 654 may be derived by various amplitude, frequency or phase modulation schemes, as is well known in the art. The transmit signal **654** is coupled to the transmit antenna **670**, which provides wireless communications to a corresponding receive antenna **770** (FIG. **7**), as described below.

[0036] As shown in FIG. **6**, the sensor interface **610** conditions and digitizes the sensor signal **612** to generate the conditioned signal **614**. Sensor signal conditioning may be performed in the analog domain or digital domain or both and may include amplification and filtering in the analog domain and filtering, buffering and data rate modification in the digital domain, to name a few. The resulting conditioned signal **614** is responsive to the sensor signal **612** and may be used to calculate or derive a parameter signal **632**.

[0037] Further shown in FIG. **6**, the signal processor **630** performs signal processing on the conditioned signal **614** to generate the parameter signal **632**. The signal processing may include buffering, digital filtering, smoothing, averaging, adaptive filtering and frequency transforms to name a few. The resulting parameter signal **632** may be a measurement calculated or derived from the conditioned signal, such as oxygen saturation, pulse rate, blood glucose, blood pressure and EKG to name a few. Also, the parameter signal **632** may be an intermediate result from which the above-stated measurements may be calculated or derived.

[0038] As described above, the sensor interface **610** performs mixed analog and digital pre-processing of an analog sensor signal and provides a digital output signal to the signal processor **630**. The signal processor **630** then performs digital post-processing of the front-end processor output. In alternative embodiments, the input sensor signal **612** and the output conditioned signal **614** may be either analog or digital, the front-end processing may be purely analog or purely digital, and the back-end processing may be purely analog or digital.

[0039] In addition, FIG. **6** shows an encoder **640**, which translates a digital word or serial bit stream, for example, into the baseband signal **642**, as is well-known in the art. The baseband signal **642** comprises the symbol stream that drives the transmit signal **654** modulation, and may be a single signal or multiple related signal components, such as in-phase and quadrature signals. The encoder **640** may include data compression and redundancy, also well-known in the art.

-10-

[0040] FIG. 7 illustrates a monitor module 500 having a receive antenna 770, a receiver 710, a decoder 720, a waveform processor 730 and a monitor interface 750. A receive signal 712 is coupled from the receive antenna 770, which provides wireless communications to a corresponding transmit antenna 670 (FIG. 6), as described above. The receiver **710** inputs the receive signal **712**, which corresponds to the transmit signal **654** (FIG. 6). The receiver 710 demodulates the receive signal to generate a baseband signal 714. The decoder 720 translates the symbols of the demodulated baseband signal 714 into a decoded signal 724, such as a digital word stream or bit stream. The waveform processor 730 inputs the decoded signal 724 and generates a constructed signal 732. The monitor interface 750 is configured to communicate the constructed signal 732 to a sensor port 362 of a monitor 360. The monitor 360 may output a sensor drive signal 754, which the monitor interface 750 inputs to the waveform processor 730 as a monitor drive signal 734. The waveform processor **730** may utilize the monitor drive signal **734** to generate the constructed signal **732**. The monitor interface 750 may also provide characterization information 758 to the waveform processor 730, relating to the monitor 360, the sensor 310 or both, that the waveform processor 730 utilizes to generate the constructed signal 732.

[0041] The constructed signal 732 is adapted to the monitor 360 so that measurements derived by the monitor 360 from the constructed signal 732 are generally equivalent to measurements derivable from the sensor signal 612 (FIG. 6). Note that the sensor 310 (FIG. 6) may or may not be directly compatible with the monitor 360. If the sensor 310 (FIG. 6) is compatible with the monitor 360, the constructed signal 732 is generated so that measurements derived by the monitor 360 from the constructed signal 732 are generally equivalent (within clinical significance) with those derivable directly from the sensor signal 612 (FIG. 6). If the sensor 310 (FIG. 6) is not compatible with the monitor 360, the constructed signal 732 is generated so that measurements derived by the monitor 360 from the constructed signal 732 from the sensor signal 612 (FIG. 6). If the sensor 310 (FIG. 6) is not compatible with the monitor 360, the constructed signal 732 is generated so that measurements derived by the monitor 360 from the constructed signal 732 are generally equivalent to those derivable directly from the sensor signal 612 (FIG. 6) using a compatible monitor.

Wireless Pulse Oximetry

[0042] FIGS. **8-11** illustrate pulse oximeter embodiments of a communications adapter. FIGS. **8-9** illustrate a sensor module and a monitor module, respectively, configured to communicate measured pulse oximeter parameters. FIG. **10-11** illustrate a sensor module and a monitor module, respectively, configured to communicate a plethysmograph signal.

Parameter Transmission

[0043] FIG. 8 illustrates a pulse oximetry sensor module 800 having a sensor interface 810, signal processor 830, encoder 840, transmitter 850, transmitting antenna 870 and controller 890. The sensor interface 810, signal processor 830 and controller 890 function as described with respect to FIG. 2, above. The sensor interface 810 communicates with a standard pulse oximetry sensor 310, providing an LED drive signal 818 to the LED emitters 312 and receiving a sensor signal 812 from the detector 314 in response. The sensor interface 810 provides front-end processing of the sensor signal 812, also described above, providing a plethysmograph signal 814 to the signal processor 830. The signal processor 830 then derives a parameter signal 832 that comprises a real time measurement of oxygen saturation and pulse rate. The parameter signal 832 may include other parameters, such as measurements of perfusion index and signal quality. In one embodiment, the signal processor is an MS-5 or MS-7 board available from Masimo Corporation, Irvine, CA.

[0044] As shown in FIG. 8, the encoder 840, the transmitter 850 and the transmitting antenna 870 function as described with respect to FIG. 6, above. For example, the parameter signal 832 may be a digital word stream that is serialized into a bit stream and encoded into a baseband signal 842. The baseband signal 842 may be, for example, two bit symbols that drive a quadrature phase shift keyed (QPSK) modulator in the transmitter 850. Other encodings and modulations are also applicable, as described above. The transmitter 850 inputs the baseband signal 842 and generates a transmit signal 854 that is a modulated carrier having a frequency suitable for short-range transmission, such as within a hospital room, doctor's office, emergency vehicle or critical care ward, to name a few. The transmit signal 854 is coupled to the transmit antenna 870, which provides wireless communications to a corresponding receive antenna 970 (FIG. 9), as described below.

[0045] FIG. 9 illustrates a monitor module 900 having a receive antenna 970, a receiver 910, a decoder 920, a waveform generator 930 and an interface cable 950. The receive antenna 970, receiver 910 and decoder 920 function as described with respect to FIG. 7, above. In particular, the receive signal 912 is coupled from the receive antenna 970, which provides wireless communications to a corresponding transmit antenna 870 (FIG. 8). The receiver 910 inputs the receive signal 912, which corresponds to the transmit signal 854 (FIG. 8). The receiver 810 demodulates the receive signal 912 to generate a baseband signal 914. Not accounting for transmission errors, the baseband signal 914 corresponds to the sensor module baseband signal 842 (FIG. 8), for example a symbol stream of two bits each. The decoder 920 assembles the baseband signal 914 into a parameter signal 924, which, for example, may be a sequence of digital words corresponding to oxygen saturation and pulse rate. Again, not accounting for transmission errors, the monitor module parameter signal 924 corresponds to the sensor module parameter signal 914 into a parameter signal 924, which, for example, may be a sequence of digital words corresponding to oxygen saturation and pulse rate. Again, not accounting for transmission errors, the monitor module parameter signal 924 corresponds to the sensor module parameter signal 924 (FIG. 8).

[0046] Also shown in FIG. 9, the waveform generator 930 is a particular embodiment of the waveform processor 730 (FIG. 7) described above. The waveform generator 930 generates a synthesized waveform 932 that the pulse oximeter monitor 360 can process to calculate SpO₂ and pulse rate values or exception messages. In the present embodiment, the waveform generator output does not reflect a physiological waveform. In particular, the synthesized waveform is not physiological data from the sensor module 800, but is a waveform synthesized from predetermined stored waveform data to cause the monitor 360 to calculate oxygen saturation and pulse rate equivalent to or generally equivalent (within clinical significance) to that calculated by the signal processor 830 (FIG. 8). The actual intensity signal from the patient received by the detector 314 (FIG. 8) is not provided to the monitor 360 in the present embodiment. Indeed, the waveform provided to the monitor 360 will usually not resemble a plethysmographic waveform or other physiological data from the patient to whom the sensor module 800 (FIG. 8) is attached.

[0047] The synthesized waveform 932 is modulated according to the drive signal input 934. That is, the pulse oximeter monitor 360 expects to receive a red and IR modulated intensity signal originating from a detector, as described with respect to FIGS. 1-2, above.
The waveform generator **930** generates the synthesized waveform **932** with a predetermined shape, such as a triangular or sawtooth waveform stored in waveform generator memory or derived by a waveform generator algorithm. The waveform is modulated synchronously with the drive input **934** with first and second amplitudes that are processed in the monitor **360** as red and IR portions of a sensor signal. The frequency and the first and second amplitudes are adjusted so that pulse rate and oxygen saturation measurements derived by the pulse oximeter monitor **360** are generally equivalent to the parameter measurements derived by the signal processor **830** (FIG. **8**), as described above. One embodiment of a waveform generator **930** is described in US Patent Application No. 60/117,097 entitled "Universal/Upgrading Pulse Oximeter," assigned to Masimo Corporation, Irvine, CA and incorporated by reference herein. Although the waveform generator **930** is described above as synthesizing a waveform that does not resemble a physiological signal, one of ordinary skill will recognize that another embodiment of the waveform generator **930** could incorporate, for example, a plethysmograph simulator or other physiological signal simulator.

[0048] Further shown in FIG. 9, the interface cable 950 functions in a manner similar to the monitor interface 750 (FIG. 7) described above. The interface cable 950 is configured to communicate the synthesized waveform 932 to the monitor 360 sensor port and to communicate the sensor drive signal 934 to the waveform generator 930. The interface cable 950 may include a ROM 960 that contains monitor and sensor characterization data. The ROM 960 is read by the waveform generator 930 so that the synthesized waveform 932 is adapted to a particular monitor 360. For example, the ROM 960 may contain calibration data of red/IR versus oxygen saturation, waveform amplitude and waveform shape information. An interface cable is described in US Patent Application No. 60/117,092, referenced above. Monitor-specific SatShareTM brand interface cables are available from Masimo Corporation, Irvine, CA. In an alternative embodiment, such as a direct connect monitor module as illustrated in FIG. 5A, an interface cable 950 is not used and the ROM 960 may be incorporated within the monitor module 900 itself.

Plethysmograph Transmission

[0049] FIG. 10 illustrates another pulse oximetry sensor module 1000 having a sensor interface 1010, encoder 1040, transmitter 1050, transmitting antenna 1070 and controller 1090, which have the corresponding functions as those described with respect to FIG. 8, above. The encoder 1040, however, inputs a plethysmograph signal 1014 rather than oxygen saturation and pulse rate measurements 832 (FIG. 8). Thus, the sensor module 1000 according to this embodiment encodes and transmits a plethysmograph signal 1014 to a corresponding monitor module 1100 (FIG. 11) in contrast to derived physiological parameters, such as oxygen saturation and pulse rate. The plethysmograph signal 1014 is illustrated in FIG. 10 as being a direct output from the sensor interface 1010. In another embodiment, the sensor module 1000 incorporates a decimation processor, not shown, after the sensor interface 1010 so as to provide a plethysmograph signal 1014 having a reduced sample rate.

FIG. 11 illustrates another pulse oximetry monitor module 1100 having a [0050] receive antenna 1170, a receiver 1110, a decoder 1120 and an interface cable 1150, which have the corresponding functions as those described with respect to FIG. 9, above. This monitor module embodiment **1100**, however, has a waveform modulator **1200** rather than a waveform generator 930 (FIG. 9), as described above. The waveform modulator 1200 inputs a plethysmograph signal from the decoder 1120 rather than oxygen saturation and pulse rate measurements, as described with respect to FIG. 9, above. Further, the waveform modulator **1200** provides an modulated waveform **1132** to the pulse oximeter monitor **360** rather than a synthesized waveform, as described with respect to FIG. 9. The modulated waveform 1132 is a plethysmographic waveform modulated according to the monitor drive signal input 1134. That is, the waveform modulator **1200** does not synthesize a waveform, but rather modifies the received plethysmograph signal 1124 to cause the monitor 360 to calculate oxygen saturation and pulse rate generally equivalent (within clinical significance) to that derivable by a compatible, calibrated pulse oximeter directly from the sensor signal 1012 (FIG. 10). The waveform modulator **1200** is described in further detail with respect to FIG. **12**, below.

[0051] FIG. 12 shows a waveform modulator 1200 having a demodulator 1210, a red digital-to-analog converter (DAC) 1220, an IR DAC 1230, a red amplifier 1240, an IR amplifier 1250, a modulator 1260, a modulator control 1270, a look-up table (LUT) 1280 and

a ratio calculator **1290**. The waveform modulator **1200** demodulates red and IR plethysmographs ("pleths") from the decoder output **1124** into a separate red pleth **1222** and IR pleth **1232**. The waveform modulator **1200** also adjusts the amplitudes of the pleths **1222**, **1232** according to stored calibration curves for the sensor **310** (FIG. **10**) and the monitor **360** (FIG. **11**). Further, the waveform modulator **1200** re-modulates the adjusted red pleth **1242** and adjusted IR pleth **1252**, generating a modulated waveform **1132** to the monitor **360** (FIG. **11**).

[0052] As shown in FIG. 12, the demodulator 1210 performs the demodulation function described above, generating digital red and IR pleth signals 1212, 1214. The DACs 1220, 1230 convert the digital pleth signals 1212, 1214 to corresponding analog pleth signals 1222, 1232. The amplifiers 1240, 1250 have variable gain control inputs 1262, 1264 and perform the amplitude adjustment function described above, generating adjusted red and IR pleth signals 1242, 1252. The modulator 1260 performs the re-modulation function described above, combining the adjusted red and IR pleth signals 1242, 1252 according to a control signal 1272. The modulator control 1270 generates the control signal 1272 synchronously with the LED drive signal(s) 1134 from the monitor 360.

[0053] Also shown in FIG. 12, the ratio calculator 1290 derives a red/IR ratio from the demodulator outputs 1212, 1214. The LUT 1280 stores empirical calibration data for the sensor 310 (FIG. 10). The LUT 1280 also downloads monitor-specific calibration data from the ROM 1160 (FIG. 11) via the ROM output 1158. From this calibration data, the LUT 1280 determines a desired red/IR ratio for the modulated waveform 1132 and generates red and IR gain outputs 1262, 1264 to the corresponding amplifiers 1240, 1250, accordingly. A desired red/IR ratio is one that allows the monitor 360 (FIG. 11) to derive oxygen saturation measurements from the modulated waveform 1132 that are generally equivalent to that derivable directly from the sensor signal 1012 (FIG. 10).

[0054] One of ordinary skill in the art will recognize that some of the signal processing functions described with respect to FIGS. **8-11** may be performed either within a sensor module or within a monitor module. Signal processing functions performed within a sensor module may advantageously reduce the transmission bandwidth to a monitor module at a cost of increased sensor module size and power consumption. Likewise, signal

processing functions performed within a monitor module may reduce sensor module size and power consumption at a cost of increase transmission bandwidth.

[0055] For example, a monitor module embodiment 900 (FIG. 9) described above receives measured pulse oximeter parameters, such as oxygen saturation and pulse rate, and generates a corresponding synthesized waveform. In that embodiment, the oxygen saturation and pulse rate computations are performed within a sensor module 800 (FIG. 8). Another monitor module embodiment **1100** (FIG. **11**), also described above, receives a plethysmograph waveform and generates a remodulated waveform. In that embodiment, minimal signal processing is performed within a sensor module 1000 (FIG. 10). In yet another embodiment, not shown, a sensor module transmits a plethysmograph waveform or a decimated plethysmograph waveform having a reduced sample rate. A corresponding monitor module has a signal processor, such as described with respect to FIG. 8, in addition to a waveform generator, as described with respect to FIG. 9. The signal processor computes pulse oximeter parameters and the waveform generator generates a corresponding synthesized waveform, as described above. In this embodiment, minimal signal processing is performed within the sensor module, and the monitor module functions are performed on the pulse oximeter parameters computed within the monitor module.

Wireless Multiple Parameter Measurements

[0056] FIGS. 13-14 illustrate a multiple parameter communications adapter. FIG. 13 illustrates a multiple parameter sensor module 1300 having sensor interfaces 1310, one or more signal processors 1330, a multiplexer and encoder 1340, a transmitter 1350, a transmitting antenna 1370 and a controller 1390. One or more physiological sensors 1301 provide input sensor signals 1312 to the sensor module 1300. Depending on the particular sensors 1301, the sensor module 1300 may provide one or more drive signals 1312 to the sensor signals 1312 and output one or more conditioned signals 1314. The conditioned signals 1314 may be coupled to the transmitter 1350 or further processed by the signal processors 1330. If the sensor module configuration utilizes signal processors 1330, it derives multiple parameter signals 1332 responsive to the sensor signals 1312, which are then

coupled to the transmitter **1350**. Regardless, the transmitter **1350** inputs a baseband signal **1342** that is responsive to the sensor signals **1312**. The transmitter **1350** modulates the baseband signal **1342** with a carrier to generate a transmit signal **1354**, which is coupled to the transmit antenna **1370** and communicated to a corresponding receive antenna **1470** (FIG. **14**), as described with respect to FIG. **6**, above. Alternatively, there may be multiple baseband signals **1342**, and the transmitter **1350** may transmit on multiple frequency channels, where each channel coveys data responsive to one or more of the sensor signals **1314**.

[0057] As shown in FIG. 13, the sensor interface 1310 conditions and digitizes the sensor signals 1312 as described for a single sensor with respect to FIG. 6, above. The resulting conditioned signals 1314 are responsive to the sensor signals 1312. The signal processors 1330 perform signal processing on the conditioned signals 1314 to derive parameter signals 1332, as described for a single conditioned signal with respect to FIG. 6, above. The parameter signals 1332 may be physiological measurements such as oxygen saturation, pulse rate, blood glucose, blood pressure, EKG, respiration rate and body temperature to name a few, or may be intermediate results from which the above-stated measurements may be calculated or derived. The multiplexer and encoder 1340 combines multiple digital word or serial bit streams into a single digital word or bit stream. The multiplexer and encoder also encodes the digital word or bit stream to generate the baseband signal 1342, as described with respect to FIG. 6, above.

[0058] FIG. 14 illustrates a multiple parameter monitor module 1400 having a receive antenna 1470, a receiver 1410, a demultiplexer and decoder 1420, one or more waveform processors 1430 and a monitor interface 1450. The receiver 1410 inputs and demodulates the receive signal 1412 corresponding to the transmit signal 1354 (FIG. 13) to generate a baseband signal 1414 as described with respect to FIG. 7, above. The demultiplexer and decoder 1420 separates the symbol streams corresponding to the multiple conditioned signals 1314 (FIG. 13) and/or parameter signals 1332 (FIG. 13) and translates these symbol streams into multiple decoded signals 1422, as described for a single symbol stream with respect to FIG. 7, above. Alternatively, multiple frequency channels are received to generate multiple baseband signals, each of which are decoded to yield multiple decoded

signals 1422. The waveform processors 1430 input the decoded signals 1422 and generate multiple constructed signals 1432, as described for a single decoded signal with respect to FIGS. 7-12, above. The monitor interface 1450 is configured to communicate the constructed signals 1432 to the sensor ports of a multiple parameter monitor 1401 or multiple single parameter monitors, in a manner similar to that for a single constructed signals 1432 are adapted to the monitor 1401 so that measurements derived by the monitor 1401 from the constructed signals 1432 are generally equivalent to measurements derivable directly from the sensor signals 1312 (FIG. 13).

[0059] A physiological measurement communications adapter is described above with respect to wireless communications and, in particular, radio frequency communications. A sensor module and monitor module, however, may also communicate via wired communications, such as telephone, Internet or fiberoptic cable to name a few. Further, wireless communications can also utilize light frequencies, such as IR or laser to name a few.

[0060] A physiological measurement communications adapter has been disclosed in detail in connection with various embodiments. These embodiments are disclosed by way of examples only. One of ordinary skill in the art will appreciate many variations and modifications of a physiological measurement communications adapter within the scope of the claims that follow.

-19-

WHAT IS CLAIMED IS:

1. A personal, wearable, wireless physiological system comprising:

a physiological sensor configured to be attached to a patient and further configured to measure data useable to determine a physiological parameter;

a housing including a first processor configured to receive sensor signals from said physiological sensor and further configured calculate at least one physiological parameter of a patient, said housing configured to be wearable by the patient;

a first communications link in communication with said first processor, the communication link configured to at least wirelessly transmit an indication of the calculated at least one physiological parameter;

a second communications link configured to wirelessly receive the transmitted indication of the calculated at least one physiological parameter transmitted by the first communications link;

a second processor in communication with the second communications link, the second processor configured to provide a signal to the sensor input of a physiological monitor to cause the physiological monitor to display a physiological measurement consistent with the calculated at least one physiological parameter of the patient.

ABSTRACT

A sensor interface is configured to receive a sensor signal. A transmitter generates a transmit signal. A receiver receives the signal corresponding to the transmit signal. Further, a monitor interface is configured to communicate a waveform to the monitor so that measurements derived by the monitor from the waveform are generally equivalent to measurements derivable from the sensor signal.



1/17



FIG. 2 (Prior Art)





FIG. 4A





FIG. 5A

6/17

50



FIG. 5B



FIG. 5C

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FIG. 6





11/17

FIG. 8





FIG. 10



FIG. 11







16/17

FIG. 13

-1300





FIG. 14

17/17



PTO/AIA/01 (06-12) Approved for use through 01/31/2014. OMB 0651-0032 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)		
Title of PHYSIOLOGICAL MEASUREMENT COMMUNICATIONS ADAPTER		
As the below named inventor, I hereby declare that:		
This declaration The attached application, or the declaration or the standard stan		
United States application or PCT international application number <u>14/037137</u> filed on <u>September 25, 2013</u> .		
The above-identified application was made or authorized to be made by me.		
I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.		
I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.		
WARNING:		
Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card number (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USP to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.		
LEGAL NAME OF INVENTOR		
Inventor: Ammar Al-Ali Date (Optional) :		
Signature:		
Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form or must hav been previously filed. Use an additional PTO/AIA/01 form for each additional inventor.		
This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (an by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 1 minute to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO		

THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Inventor	:	Ammar Al-Ali		
App. No.	:	15/499619		
Filed	:	April 27, 2017		
For	:	BODY WORN MOBILE MEDICAL PATIENT MONITOR		
Examiner	:	Unknown		
Art Unit	:	2685		
Conf. No.	:	3723		

PRELIMINARY AMENDMENT

Mail Stop Amendment

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

Prior to examination on the merits, please consider the following:

Amendments to the Specification begin on page 2 of this paper.

Amendments to the Claims are reflected in the listing of claims which begins on page 3

of this paper.

Remarks begin on page 7 of this paper.

AMENDMENTS TO THE SPECIFICATION

Please amend the Abstract as follows:

A body worn mobile medical monitoring device configured to minimize cable wiring from a sensor by placement of one or more sensor communication ports. The body worn mobile medical monitoring device includes a housing securable on a lower arm of a patient, a display, and a sensor communication port positioned on a side of the housing and configured to face a hand of the lower arm of the patient when the mobile medical monitoring device is mounted to the lower arm of the patient. The sensor communication port provides wired communication with a pulse oximetry sensor attached to a digit of the hand of the patient, and is positioned on the side of the housing such that a path from the port on the side of the housing to the digit. A sensor interface is configured to receive a sensor signal. A transmitter generates a transmit signal. A receiver receives the signal corresponding to the transmit signal. Further, a monitor interface is configured to communicate a waveform to the monitor so that measurements derived by the monitor from the waveform are generally equivalent to measurements derivable from the sensor signal.

AMENDMENTS TO THE CLAIMS

1. (Canceled)

2. (New) A body worn mobile medical monitoring device configured to minimize cable wiring from a sensor by placement of one or more sensor communication ports, the mobile medical monitoring device comprising:

a housing configured to be secured on a lower arm of a patient being monitored via a strap extending around the lower arm of the patient;

a display positioned on a face of the housing, opposite the strap, so as to be visible to a user;

a first sensor communication port positioned on a side of the housing and configured to face a hand of the lower arm of the patient when the mobile medical monitoring device is mounted to the lower arm of the patient, wherein:

the first sensor communication port is configured to provide wired communication with a pulse oximetry sensor attached to a digit of the hand of the patient, and

the first sensor communication port is positioned on the side of the housing such that a path from the first sensor communication port on the side of the housing to the digit of the patient is shorter than any other path from any other side of the housing to the digit of the patient.

3. (New) The mobile medical monitoring device of Claim 2, wherein the wired communication with the pulse oximetry sensor is provided via a tail extending from the pulse oximetry sensor.

4. (New) The mobile medical monitoring device of Claim 3, wherein the tail comprises a cable that is configured to be removably attachable to the first sensor communication port.

5. (New) The mobile medical monitoring device of Claim 4, wherein a length of the cable corresponds to the path from the sensor communication port on the side of the housing to the digit of the patient.

-3-

Application No.:15/499619Filing Date:April 27, 2017

6. (New) The mobile medical monitoring device of Claim 4, wherein the cable is appropriately sized based on the path from the sensor communication port on the side of the housing to the digit of the patient.

7. (New) The mobile medical monitoring device of Claim 4, wherein the path from the sensor communication port on the side of the housing to the digit of the patient runs at least partly along a backside of the hand of the patient.

8. (New) The mobile medical monitoring device of Claim 2, wherein the face of the housing comprises a single user interface.

9. (New) The mobile medical monitoring device of Claim 8, wherein the single user interface comprises the display.

10. (New) The mobile medical monitoring device of Claim 9, wherein:

the housing comprises a back side that is opposite the face of the housing,

the strap is mountable to the back side of the housing, and

the face of the housing is raised from the strap and the lower arm of the patient to enable positioning of the first sensor communication port on the side of the housing between the lower arm of the patient and the face of the housing.

11. (**New**) The mobile medical monitoring device of Claim 10, wherein:

the front side of the housing comprises a bezel and the display, and

a top of the first sensor communication port is located below the face of the housing.

12. (New) The mobile medical monitoring device of Claim 11, wherein the display is positioned centrally on the face of the housing.

13. (New) The mobile medical monitoring device of Claim 12, wherein the display positioned on the face of the housing is sized such that the display covers most of a length of a shortest dimension of the face of the housing.

14. (New) The mobile medical monitoring device of Claim 2 further comprising:

second and third sensor communication ports positioned on the housing and configured to provide wired communication with one or more additional physiological sensors.

-4-

Application No.:15/499619Filing Date:April 27, 2017

15. (New) A body worn, battery-powered medical monitoring device configured to provide on-patient and remote monitoring of patient physiological parameters, the medical monitoring device comprising:

a battery configured to provide power to the medical monitoring device such that the medical monitoring device may operate without a wired power connection;

a case configured to house the battery;

a strap configured to attach the case to an arm of a patient and be mountable to the case;

a first communications port positioned on a side of the case configured to be nearest to a hand of the arm of the patient when the case is mounted to the arm of the patient, the first communications port configured to removably couple with a cable of a finger- or thumb-type pulse oximetry sensor and positioned on the case to provide a path from the first communications port to a digit of the hand of the patient that avoids tangling of the cable;

a second communications port configured to provide communications with a second physiological sensor arrangement;

a third communications port configured to provide communications with a third physiological sensor arrangement;

a display configured to provide real time measurements of patient physiological parameters based at least in part on data obtained from at least the pulse oximetry sensor via the first communications port; and

a transmitter configured to wirelessly transmit information indicative of real time measurements of patient physiological parameters based at least in part on data obtained from the pulse oximetry sensor via the first communications port.

16. (New) The medical monitoring device of Claim 15, wherein the path from the first communications port to a digit of the hand is shorter than any path from any communications port located on any other side of the case to the digit of the hand.

17. (New) The medical monitoring device of Claim 15 further comprising:one or more hardware processors configured to:

process the data obtained from the pulse oximetry sensor; and

-5-

determine, based at least in part on the data, the real time measurements of patient physiological parameters.

18. (New) The medical monitoring device of Claim 17, wherein:

the one or more hardware processors are further configured to:

receive additional data from at least the second physiological sensor arrangement and the third physiological sensor arrangement;

determine, based at least in part on the additional data, real time measurements of additional patient physiological parameters; and

cause to be displayed, on the display, the real time measurements of additional patient physiological parameters; and

the transmitter is further configured to:

wirelessly transmit information indicative of real time measurements of additional patient physiological parameters based at least in part on the additional data.

19. (New) The medical monitoring device of Claim 18, wherein the display is positioned on a front, user-facing side of the case to enable a user to view the real time measurements of patient physiological parameters and the real time measurements of additional patient physiological parameters.

20. (New) The medical monitoring device of Claim 19, wherein the second physiological sensor arrangement comprises an EKG sensor arrangement and the third physiological sensor arrangement comprises a blood pressure sensor arrangement.

21. (New) The medical monitoring device of Claim 20, wherein:

the first, second, and third communication ports are communicatively coupled to respective first, second, and third sensor interfaces; and

the first, second, and third sensor interfaces are uniquely configured to receive signals from the respective pulse oximetry sensor, EKG sensor arrangement, and blood pressure sensor arrangement.

-6-

Application No.:15/499619Filing Date:April 27, 2017

REMARKS

By way of summary, Claim 1 was pending in this application. In the present amendment, the Applicant has canceled Claim 1 without prejudice or disclaimer of subject matter, and added new Claims 2-21. Applicant reserves the right to pursue previously pending claims in this or another application. Additionally, as indicated above, Applicant is amending the Abstract of the application. No new matter is added by these amendments. Accordingly, Claims 2-21 are pending for consideration.

No Disclaimers or Disavowals

Although the present communication may include alterations to the application or claims, or characterizations of claim scope or referenced art, Applicant is not conceding in this application that previously pending claims are not patentable over the cited references. Rather, any alterations or characterizations are being made to facilitate expeditious prosecution of this application. Applicant reserves the right to pursue at a later date any previously pending or other broader or narrower claims that capture any subject matter supported by the present disclosure, including subject matter found to be specifically disclaimed herein or by any prior prosecution. Accordingly, reviewers of this or any parent, child or related prosecution history shall not reasonably infer that Applicant has made any disclaimers or disavowals of any subject matter supported by the present application.

Co-Pending Applications of Assignee

Docket No.	Serial No.	Title	Filed
MASIMO.317C7	15/448989	ARM MOUNTABLE PORTABLE PATIENT MONITOR	3/3/2017
MASIMO.317C8	15/494967	ARM MOUNTABLE PORTABLE PATIENT MONITOR	4/24/2017
MASIMO.317C10	15/499716	WEARABLE PORTABLE PATIENT MONITOR	4/27/2017
MASIMO.584C1	14/464560	MODULAR PATIENT MONITOR	08/20/2014
MASIMO.785C2	14/733781	MODULAR PATIENT MONITOR	06/08/2015

Applicant wishes to draw the Examiner's attention to the following co-pending applications of the present application's assignee.

Application No.:15/499619Filing Date:April 27, 2017

Docket No.	Serial No.	Title	Filed
MASIMO.899A	13/762270	WIRELESS PATIENT MONITORING DEVICE	02/07/2013
MASIMO.899P1	14/511974	PATIENT POSITION DETECTION SYSTEM	10/10/2014
MASIMO.899D1	14/834169	WIRELESS PATIENT MONITORING DEVICE	08/24/2015
MASIMO.899DA	29/537221	WIRELESS PATIENT MONITORING DEVICE	08/24/2015
MASIMO.930D1	15/214156	MEDICAL MONITORING HUB	07/19/2016
MASIMO.930D2	15/214276	MEDICAL MONITORING HUB	07/19/2016
MASIMO.930D3	15/214186	MEDICAL MONITORING HUB	07/19/2016
MASIMO.930P1	14/512237	SYSTEM FOR DISPLAYING MEDICAL MONITORING DATA	10/10/2014
MASIMO.963A	14/511972	ALARM NOTIFICATION SYSTEM	10/10/2014
MASIMO.1000A1	15/253567	WIRELESS PATIENT MONITORING SYSTEMS AND METHODS	08/31/2016
MASIMO.1000A2	15/253482	SYSTEMSANDMETHODSTOMONITORREPOSITIONINGOFAPATIENT	08/31/2016
MASIMO.1000A3	15/253355	SYSTEMS AND METHODS FOR PATIENT FALL DETECTION	08/31/2016
MASIMO.1000A4	15/253536	PATIENT-WORN WIRELESS PHYSIOLOGICAL SENSOR	08/31/2016

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: April 28, 2017

By: /Scott Cromar/_____

Scott A. Cromar Registration No. 65,066 Attorney Customer No. 64735 (949) 760-0404

-8-

Electronic Acknowledgement Receipt			
EFS ID:	29059625		
Application Number:	15499619		
International Application Number:			
Confirmation Number:	3723		
Title of Invention:	BODY WORN MOBILE MEDICAL PATIENT MONITOR		
First Named Inventor/Applicant Name:	Ammar Al-Ali		
Customer Number:	64735		
Filer:	Scott Cromar/Christina Graul		
Filer Authorized By:	Scott Cromar		
Attorney Docket Number:	MASIMO.317C9		
Receipt Date:	28-APR-2017		
Filing Date:			
Time Stamp:	14:46:32		
Application Type:	Utility under 35 USC 111(a)		

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Submitted with Payment		no	no			
File Listing:						
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)	
			47311			
1		PreAMD_MASIMO317C9.pdf	e142a70efdae0d85352deb736b9e6d4c67c f170a	yes	8	

	Multipart Description/PDF files in .zip description					
	Document Description	Start	End			
	Preliminary Amendment	1	1			
	Specification	2	2			
	Claims	3	6			
	Applicant Arguments/Remarks Made in an Amendment	7	8			
Warnings:						
Information:						
	Total Files Size (in bytes):	2	17311			
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. New Applications Under 35 U.S.C. 111 If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. National Stage of an International Application under 35 U.S.C. 371 If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. New International Application Filed with the USPTO as a Receiving Office If a new international application is being filed and the international application includes the necessary components for an international Application Filed with the USPTO as a Receiving Office						
and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.						
Application No.:15/499619Filing Date:April 27, 2017

References for Examiner Consideration

Applicant wishes to draw the Examiner's attention to, and encourages the Examiner to review, the following co-owned applications, include their ongoing prosecution history, including without limitation Office Actions, Amendments, Remarks, and any other potentially relevant documents:

Docket No.	Serial No.	Title	Filed
MASIMO.317C7	15/448989	ARM MOUNTABLE PORTABLE PATIENT MONITOR	03/03/2017
MASIMO.317C8	15/494967	ARM MOUNTABLE PORTABLE PATIENT MONITOR	04/24/2017
MASIMO.317C10	15/499716	WEARABLE PORTABLE PATIENT MONITOR	04/27/2017
MASIMO.584C1	14/464560	MODULAR PATIENT MONITOR	08/20/2014
MASIMO.785C2	14/733781	MODULAR PATIENT MONITOR	06/08/2015
MASIMO.899A	13/762270	WIRELESS PATIENT MONITORING DEVICE	02/07/2013
MASIMO.899P1	14/511974	PATIENT POSITION DETECTION SYSTEM	10/10/2014
MASIMO.899D1	14/834169	WIRELESS PATIENT MONITORING DEVICE	08/24/2015
MASIMO.899DA	29/537221	WIRELESS PATIENT MONITORING DEVICE	08/24/2015
MASIMO.930D1	15/214156	MEDICAL MONITORING HUB	07/19/2016
MASIMO.930D2	15/214276	MEDICAL MONITORING HUB	07/19/2016
MASIMO.930D3	15/214186	MEDICAL MONITORING HUB	07/19/2016
MASIMO.930P1	14/512237	SYSTEMFORDISPLAYINGMEDICAL MONITORING DATA	10/10/2014
MASIMO.963A	14/511972	ALARM NOTIFICATION SYSTEM	10/10/2014
MASIMO.1000A1	15/253567	WIRELESS PATIENT MONITORING SYSTEMS AND METHODS	08/31/2016
MASIMO.1000A2	15/253482	SYSTEMSANDMETHODSTOMONITORREPOSITIONINGOFAPATIENT	08/31/2016
MASIMO.1000A3	15/253355	SYSTEMS AND METHODS FOR PATIENT FALL DETECTION	08/31/2016
MASIMO.1000A4	15/253536	PATIENT-WORN WIRELESS PHYSIOLOGICAL SENSOR	08/31/2016

Application No.:15/499619Filing Date:April 27, 2017

Applicant notes that cited references, office actions, responses and notices of allowance currently exist or will exist with reference to the above-referenced matters. Applicant also understands that the Examiner has access to sophisticated online Patent Office computing systems that provide ready access to the full file histories of these matters including, for example, specifications, drawings, pending claims, cited art, office actions, responses, declarations, and notices of allowance. Rather than submit copies of these file histories, Applicant respectfully requests that the Examiner continue to review these file histories online for past, current, and future information about these matters that may be relevant to examination of the present application. Also, if the Examiner cannot readily access these file histories, Applicant would be pleased to provide any portion of any of the file histories at any time upon specific Examiner request.

No Disclaimers

To the extent that anything in the Information Disclosure Statement or the listed references could be construed as a disclaimer of any subject matter supported by the present application, Applicant hereby rescinds and retracts such disclaimer.

Timing of Disclosure

This Information Disclosure Statement is being filed within three months of the filing date, and no fee is believed to be required.

The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment, to Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: May 2, 2017

By: /Scott Cromar/ Scott A. Cromar Registration No. 65,066 Attorney of Record Customer No. 64735 (949) 760-0404

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-3-

74

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Multiple sheets used when necessary) SHEET 1 OF 45

Application No.	15/499619
Filing Date	April 27, 2017
First Named Inventor	Ammar Al-Ali
Art Unit	2685
Examiner	Unknown
Attorney Docket No.	MASIMO.317C9

	U.S. PATENT DOCUMENTS								
Examiner Initials	Cite No.	Document Number <i>Number - Kind Code (if known)</i> Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear				
	1	RE38,476	03-30-2004	Diab et al.					
	2	RE38,492	04-06-2004	Diab et al.					
	3	RE39,672	06-05-2007	Shehada et al.					
	4	RE41,236	04-20-2010	Seely					
	5	RE41,317	05-04-2010	Parker					
	6	RE41,912	11-02-2010	Parker					
	7	RE42,753	09-27-2011	Kiani-Azarbayjany et al.					
	8	RE43,169	02-07-2012	Parker					
	9	RE43,860	12-11-2012	Parker					
	10	RE44,823	04-01-2014	Parker					
	11	RE44,875	04-29-2014	Kiani et al.					
	12	D353,195	12-06-1994	Savage et al.					
	13	D353,196	12-06-1994	Savage et al.					
	14	D357,982	05-02-1995	Dahl et al.					
	15	D359,546	06-20-1995	Savage et al.					
	16	D361,840	08-29-1995	Savage et al.					
	17	D362,063	09-05-1995	Savage et al.					
	18	D363,120	10-10-1995	Savage et al.					
	19	D393,830	04-28-1998	Tobler et al.					
	20	D437,058	01-30-2001	Gozani					
	21	D483,872	12-16-2003	Cruz et al.					
	22	D554,263	10-30-2007	Al-Ali					
	23	D566,282	04-08-2008	Al-Ali et al.					
	24	D587,657	03-03-2009	Al-Ali et al.					
	25	D606,659	12-22-2009	Kiani et al.					
	26	D609,193	02-02-2010	Al-Ali et al.					
	27	D614,305	04-20-2010	Al-Ali et al.					
	28	D621,515	08-10-2010	Chua et al.					
	29	D621,516	08-10-2010	Kiani et al.					

Exan	niner Siç	gnature							Dat	e Co	ons	idere	ed					

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT BI ALLEGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 2 OF 45	Attorney Docket No.	MASIMO.317C9

	U.S. PATENT DOCUMENTS								
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear				
	30	D659,836	05-15-2012	Bensch et al.					
	31	D679,018	03-26-2013	Fullerton et al.					
	32	D692,145	10-22-2013	Al-Ali et al.					
	33	D709,846	07-29-2014	Oswaks					
	34	D745,167	12-08-2015	Canas et al.					
	35	D755,392	05-03-2016	Hwang et al.					
	36	3,646,606	02-29-1972	Buxton et al.					
	37	3,690,313	09-12-1972	Weppner et al.					
	38	3,810,102	05-07-1974	Parks III, et al.					
	39	3,815,583	06-11-1974	Scheidt					
	40	3,972,320	08-03-1976	Kalman					
	41	3,978,849	09-07-1976	Geneen					
	42	4,108,166	08-22-1978	Schmid					
	43	4,231,354	11-04-1980	Kurtz et al.					
	44	4,589,415	05-20-1986	Haaga					
	45	4,662,378	05-05-1987	Thomis					
	46	4,838,275	06-13-1989	Lee					
	47	4,852,570	08-01-1989	Levine					
	48	4,960,128	10-02-1990	Gordon et al.					
	49	4,964,408	10-23-1990	Hink et al.					
	50	5,041,187	08-20-1991	Hink et al.					
	51	5,069,213	12-03-1991	Polczynski					
	52	5,092,340	03-03-1992	Yamaguchi et al.					
	53	5,140,519	08-18-1992	Friesdorf et al.					
	54	5,159,932	11-03-1992	Zanetti et al.					
	55	5,161,539	11-10-1992	Evans et al.					
	56	5,163,438	11-17-1992	Gordon et al.					
	57	5,262,944	11-16-1993	Weisner et al.					
	58	5,277,189	01-11-1994	Jacobs					

Examiner Signature	Date Considered
*Examiner: Initial if reference considered, whether or not citation is in conform in conformance and not considered. Include copy of this form with next comm	

INFORMATION DISCLOSURE Fil STATEMENT BY APPLICANT

(Multiple sheets used when necessary) SHEET 3 OF 45

Application No.	15/499619
Filing Date	April 27, 2017
First Named Inventor	Ammar Al-Ali
Art Unit	2685
Examiner	Unknown
Attorney Docket No.	MASIMO.317C9

	U.S. PATENT DOCUMENTS								
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear				
	59	5,278,627	01-11-1994	Aoyagi et al.					
	60	5,282,474	02-01-1994	Valdes Sosa et al.					
	61	5,296,688	03-22-1994	Hamilton et al.					
	62	5,318,037	06-07-1994	Evans et al.					
	63	5,319,355	06-07-1994	Russek					
	64	5,331,549	07-19-1994	Crawford, Jr.					
	65	5,333,106	07-26-1994	Lanpher et al.					
	66	5,337,744	08-16-1994	Branigan					
	67	5,341,805	08-30-1994	Stavridi et al.					
	68	5,348,008	09-20-1994	Bornn et al.					
	69	5,358,519	10-25-1994	Grandjean					
	70	5,375,599	12-27-1994	Shimizu					
	71	5,375,604	12-27-1994	Kelly et al.					
	72	5,377,676	01-03-1995	Vari et al.					
	73	5,400,794	03-28-1995	Gorman					
	74	5,416,695	05-16-1995	Stutman et al.					
	75	5,431,170	07-11-1995	Mathews					
	76	5,434,611	07-18-1995	Tamura					
	77	5,452,717	09-26-1995	Branigan et al.					
	78	5,456,252	10-10-1995	Vari et al.					
	79	5,479,934	01-02-1996	Imran					
	80	5,482,036	01-09-1996	Diab et al.					
	81	5,483,968	01-16-1996	Adam et al.					
	82	5,490,505	02-13-1996	Diab et al.					
	83	5,494,041	02-27-1996	Wilk					
	84	5,494,043	02-27-1996	O'Sullivan et al.					
	85	5,503,149	04-02-1996	Beavin					
	86	5,505,202	04-09-1996	Mogi et al.					
	87	5,533,511	07-09-1996	Kaspari et al.					

Examiner Signature			Date Considered	
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*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Multiple sheets used when necessary)

SHEET 4 OF 45

Application No. Filing Date April 27, 2017 First Named Inventor Ammar Al-Ali Art Unit 2685 Examiner Unknown Attorney Docket No. MASIMO.317C9

15/499619

			U.S. PATENT	DOCUMENTS	
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	88	5,534,851	07-09-1996	Russek	
	89	5,537,289	07-16-1996	Dahl	
	90	5,544,649	08-13-1996	David et al.	
	91	5,553,609	09-10-1996	Chen et al.	
	92	5,558,638	09-24-1996	Evers et al.	
	93	5,561,275	10-01-1996	Savage et al.	
	94	5,562,002	10-08-1996	Lalin	
	95	5,566,676	10-22-1996	Rosenfeldt et al.	
	96	5,576,952	11-19-1996	Stutman et al.	
	97	5,579,001	11-26-1996	Dempsey et al.	
	98	5,590,649	01-07-1997	Caro et al.	
	99	5,602,924	02-11-1997	Durand et al.	
	100	5,619,991	04-15-1997	Sloane	
	101	5,632,272	05-27-1997	Diab et al.	
	102	5,638,816	06-17-1997	Kiani-Azarbayjany et al.	
	103	5,638,818	06-17-1997	Diab et al.	
	104	5,640,967	06-24-1997	Fine et al.	
	105	5,645,440	07-08-1997	Tobler et al.	
	106	5,685,299	11-11-1997	Diab et al.	
	107	5,685,314	11-11-1997	Geheb et al.	
	108	5,687,717	11-18-1997	Halpern et al.	
	109	5,694,020	12-02-1997	Lang et al.	
	110	5,724,580	03-03-1998	Levin et al.	
	111	5,724,983	03-10-1998	Selker et al.	
	112	5,725,308	03-10-1998	Smith et al.	
	113	5,734,739	03-31-1998	Sheehan et al.	
	114	5,743,262	04-28-1998	Lepper, Jr. et al.	
	115	5,758,079	05-26-1998	Ludwig et al.	
	116	5,758,644	06-02-1998	Diab et al.	

Examiner Signature	Date Considered
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Multiple sheets used when necessary) SHEET 5 OF 45

Application No.	15/499619
Filing Date	April 27, 2017
First Named Inventor	Ammar Al-Ali
Art Unit	2685
Examiner	Unknown
Attorney Docket No.	MASIMO.317C9

U.S. PATENT DOCUMENTS							
Examiner Initials	No Number - Kind Code (If Known)		Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear		
	117	5,760,910	06-02-1998	Lepper, Jr. et al.			
	118	5,769,785	06-23-1998	Diab et al.			
	119	5,772,585	06-30-1998	Lavin et al.			
	120	5,782,757	07-21-1998	Diab et al.			
	121	5,782,805	07-21-1998	Meinzer			
	122	5,785,659	07-28-1998	Caro et al.			
	123	5,791,347	08-11-1998	Flaherty et al.			
	124	5,801,637	09-01-1998	Lomholt Ole			
	125	5,810,734	09-22-1998	Caro et al.			
	126	5,813,403	09-29-1998	Soller et al.			
	127	5,822,544	10-13-1998	Chaco et al.			
	128	5,822,546	10-13-1998	George			
	129	5,823,950	10-20-1998	Diab et al.			
	130	5,829,723	11-03-1998	Brunner			
	131	5,830,131	11-03-1998	Caro et al.			
	132	5,833,618	11-10-1998	Caro et al.			
	133	5,855,550	01-05-1999	Lai et al.			
	134	5,860,919	01-19-1999	Kiani-Azarbayjany et al.			
	135	5,876,351	03-02-1999	Rohde			
	136	5,890,929	04-06-1999	Mills et al.			
	137	5,904,654	05-18-1999	Wohltmann et al.			
	138	5,910,139	06-08-1999	Cochran et al.			
	139	5,919,134	07-06-1999	Diab			
	140	5,921,920	07-13-1999	Marshall et al.			
	141	5,924,074	07-13-1999	Evans			
	142	5,931,160	08-03-1999	Gilmore et al.			
	143	5,931,791	08-03-1999	Saltzstein et al.			
	144	5,934,925	08-10-1999	Tobler et al.			
	145	5,940,182	08-17-1999	Lepper, Jr. et al.			

Examiner Signature	Date Considered		
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Multiple sheets used when necessary) SHEET 6 OF 45

Application No.	15/499619
Filing Date	April 27, 2017
First Named Inventor	Ammar Al-Ali
Art Unit	2685
Examiner	Unknown
Attorney Docket No.	MASIMO.317C9

U.S. PATENT DOCUMENTS						
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	
	146	5,942,986	08-24-1999	Shabot et al.		
	147	5,987,519	11-16-1999	Peifer et al.		
	148	5,995,855	11-30-1999	Kiani et al.		
	149	5,997,343	12-07-1999	Mills et al.		
	150	6,002,952	12-14-1999	Diab et al.		
	151	6,006,119	12-21-1999	Soller et al.		
	152	6,011,986	01-04-2000	Diab et al.		
	153	6,014,346	01-11-2000	Malone		
	154	6,018,673	01-25-2000	Chin et al.		
	155	6,024,699	02-15-2000	Surwit et al.		
	156	6,027,452	02-22-2000	Flaherty et al.		
	157	6,032,678	03-07-2000	Rottem		
	158	6,035,230	03-07-2000	Kang et al.		
	159	6,036,642	03-14-2000	Diab et al.		
	160	6,036,718	03-14-2000	Ledford et al.		
	161	6,045,509	04-04-2000	Caro et al.		
	162	6,045,527	04-04-2000	Appelbaum et al.		
	163	6,057,758	05-02-2000	Dempsey et al.		
	164	6,067,462	05-23-2000	Diab et al.		
	165	6,081,735	06-27-2000	Diab et al.		
	166	6,088,607	07-11-2000	Diab et al.		
	167	6,093,146	07-25-2000	Filangeri		
	168	6,101,478	08-08-2000	Brown		
	169	6,106,463	08-22-2000	Wilk		
	170	6,110,522	08-29-2000	Lepper, Jr. et al.		
	171	6,124,597	09-26-2000	Shehada		
	172	6,128,521	10-03-2000	Marro et al.		
	173	6,129,675	10-10-2000	Jay		
	174	6,132,218	10-17-2000	Benja-Athon		

Examiner Signature	Date Considered

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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT BT ATTEICANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown

SHEET 7 OF 45

 Attorney Docket No.
 MASIMO.317C9

U.S. PATENT DOCUMENTS						
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	
	175	6,139,494	10-31-2000	Cairnes		
	176	6,144,868	11-07-2000	Parker		
	177	6,151,516	11-21-2000	Kiani-Azarbayjany et al.		
	178	6,152,754	11-28-2000	Gerhardt et al.		
	179	6,157,850	12-05-2000	Diab et al.		
	180	6,165,005	12-26-2000	Mills et al.		
	181	6,167,258	12-26-2000	Schmidt et al.		
	182	6,168,563	01-02-2001	Brown		
	183	6,171,237	01-09-2001	Avitall et al.		
	184	6,175,752	01-16-2001	Say et al.		
	185	6,183,417	02-06-2001	Gehab et al.		
	186	6,184,521	02-06-2001	Coffin, IV et al.		
	187	6,185,448	02-06-2001	Borovsky		
	188	6,195,576	02-27-2001	John		
	189	6,206,830	03-27-2001	Diab et al.		
	190	6,221,012	04-24-2001	Maschke et al.		
	191	6,224,553	05-01-2001	Nevo		
	192	6,229,856	05-08-2001	Diab et al.		
	193	6,230,142	05-08-2001	Benigno et al.		
	194	6,232,609	05-15-2001	Snyder et al.		
	195	6,236,872	05-22-2001	Diab et al.		
	196	6,241,683	06-05-2001	Macklem, et al.		
	197	6,251,113	06-26-2001	Appelbaum		
	198	6,253,097	06-26-2001	Aronow et al.		
	199	6,256,523	07-03-2001	Diab et al.		
	200	6,263,222	07-17-2001	Diab et al.		
	201	6,267,723	07-31-2001	Matsumura et al.		
	202	6,269,262	07-31-2001	Kandori et al.		
	203	6,278,522	08-21-2001	Lepper, Jr. et al.		

Examiner Signature	Date Considered		
*Examinar: Initial if reference considered, whether or not citation is in conform	ance with MPER 609. Draw line through citation if not		

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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI ALLEGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown

SHEET 8 OF 45

Attorney Docket No. MASIMO.317C9

U.S. PATENT DOCUMENTS							
Examiner Initials			Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear		
	204	6,280,213	08-28-2001	Tobler et al.			
	205	6,285,896	09-04-2001	Tobler et al.			
	206	6,301,493	10-09-2001	Marro et al.			
	207	6,304,767	10-16-2001	Soller et al.			
	208	6,312,378	11-06-2001	Bardy			
	209	6,317,627	11-13-2001	Ennen et al.			
	210	6,321,100	11-20-2001	Parker			
	211	6,322,502	11-27-2001	Schoenberg et al.			
	212	6,325,761	12-04-2001	Jay			
	213	6,329,139	12-11-2001	Nova et al.			
	214	6,334,065	12-25-2001	Al-Ali et al.			
	215	6,338,039	01-08-2002	Lonski et al.			
	216	6,343,224	01-29-2002	Parker			
	217	6,349,228	02-19-2002	Kiani et al.			
	218	6,352,504	03-05-2002	lse			
	219	6,354,235	03-12-2002	Davies, Roberty C.			
	220	6,360,114	03-19-2002	Diab et al.			
	221	6,364,834	04-02-2002	Reuss et al.			
	222	6,364,839	04-02-2002	Little et al.			
	223	6,368,283	04-09-2002	Xu et al.			
	224	6,371,921	04-16-2002	Caro et al.			
	225	6,377,829	04-23-2002	Al-Ali			
	226	6,385,476	05-07-2002	Osadchy et al.			
	227	6,385,589	05-07-2002	Trusheim et al.			
	228	6,388,240	05-14-2002	Schulz et al.			
	229	6,397,091	05-28-2002	Diab et al.			
	230	6,407,335	06-18-2002	Franklin-Lees			
	231	6,430,437	08-06-2002	Marro			
	232	6,430,525	08-06-2002	Weber et al.			

Examiner	Signature		Date Considered				

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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI ALLEGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown

SHEET 9 OF 45

 Examiner
 Unknown

 Attorney Docket No.
 MASIMO.317C9

U.S. PATENT DOCUMENTS								
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear			
	233	6,463,311	10-08-2002	Diab				
	234	6,470,199	10-22-2002	Kopotic et al.				
	235	6,470,893	10-29-2002	Boesen, Peter V.				
	236	6,501,975	12-31-2002	Diab et al.				
	237	6,505,059	01-07-2003	Kollias, et al.				
	238	6,515,273	02-04-2003	Al-Ali				
	239	6,519,487	02-11-2003	Parker				
	240	6,524,240	02-25-2003	Thede, Roger C.				
	241	6,525,386	02-25-2003	Mills et al.				
	242	6,526,300	02-25-2003	Kiani et al.				
	243	6,541,756	04-01-2003	Schulz et al.				
	244	6,542,764	04-01-2003	Al-Ali et al.				
	245	6,544,173	04-08-2003	West et al.				
	246	6,544,174	04-08-2003	West et al.				
	247	6,551,243	04-22-2003	Bocionek et al.				
	248	6,578,428	06-17-2003	Dromms et al.				
	249	6,580,086	06-17-2003	Schulz et al.				
	250	6,584,336	06-24-2003	Ali et al.				
	251	6,595,316	07-22-2003	Cybulski et al.				
	252	6,597,932	07-22-2003	Tian et al.				
	253	6,597,933	07-22-2003	Kiani et al.				
	254	6,606,511	08-12-2003	Ali et al.				
	255	6,616,606	09-09-2003	Peterson et al.				
	256	6,632,181	10-14-2003	Flaherty et al.				
	257	6,639,668	10-28-2003	Trepagnier, Pierre				
	258	6,640,116	10-28-2003	Diab				
	259	6,641,533	11-04-2003	Causey et al.				
	260	6,643,530	11-04-2003	Diab et al.				
	261	6,646,556	11-11-2003	Smith et al.				

Examiner Signature							Date Considered												

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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT BT AT LIGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 10 OF 45	Attorney Docket No.	MASIMO.317C9

	-	-	U.S. PATENT	DOCUMENTS	
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	262	6,650,917	11-18-2003	Diab et al.	
	263	6,650,939	11-18-2003	Takpke, II et al.	
	264	6,654,624	11-25-2003	Diab et al.	
	265	6,658,276	12-02-2003	Kianl et al.	
	266	6,661,161	12-09-2003	Lanzo et al.	
	267	6,663,570	12-16-2003	Mott et al.	
	268	6,671,531	12-30-2003	Al-Ali et al.	
	269	6,678,543	01-13-2004	Diab et al.	
	270	6,684,090	01-27-2004	Ali et al.	
	271	6,684,091	01-27-2004	Parker	
	272	6,694,180	02-17-2004	Boesen, Peter V.	
	273	6,697,656	02-24-2004	Al-Ali	
	274	6,697,657	02-24-2004	Shehada, et al.	
	275	6,697,658	02-24-2004	Al-Ali	
	276	6,699,194	03-02-2004	Diab et al.	
	277	6,714,804	03-30-2004	Al-Ali et al.	
	278	6,719,694	04-13-2004	Weng et al.	
	279	6,721,582	04-13-2004	Trepagnier, et al.	
	280	6,721,585	04-13-2004	Parker	
	281	6,725,075	04-20-2004	Al-Ali	
	282	6,725,086	04-20-2004	Marinello	
	283	6,728,560	04-27-2004	Kollias, et al.	
	284	6,735,459	05-11-2004	Parker	
	285	6,745,060	06-01-2004	Diab et al.	
	286	6,746,406	07-07-2015	Wawro	
	287	6,750,463	06-15-2004	Riley	
	288	6,751,492	06-15-2004	Ben-haim, Shlomo	
	289	6,760,607	07-06-2004	Al-Ali	
	290	6,766,188	07-20-2004	Soller	

Examiner Signature	Date Considered
* Examiner: Initial if reference considered, whether or not citation is in conform	ance with MPEP 609 Draw line through citation if not

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Multiple sheets used when necessary) SHEET 11 OF 45

Application No.	15/499619
Filing Date	April 27, 2017
First Named Inventor	Ammar Al-Ali
Art Unit	2685
Examiner	Unknown
Attorney Docket No.	MASIMO.317C9

U.S. PATENT DOCUMENTS								
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear			
	291	6,770,028	08-03-2004	Ali et al.				
	292	6,771,994	08-03-2004	Kiani et al.				
	293	6,783,492	08-31-2004	Dominguez				
	294	6,790,178	09-14-2004	Mault et al.				
	295	6,792,300	09-14-2004	Diab et al.				
	296	6,795,724	09-21-2004	Hogan				
	297	6,796,186	09-28-2004	Lia et al.				
	298	6,804,656	10-12-2004	Rosenfeld				
	299	6,807,050	10-19-2004	Whitehorn et al.				
	300	6,813,511	11-02-2004	Diab et al.				
	301	6,816,741	11-09-2004	Diab				
	302	6,817,979	11-16-2004	Nihtila et al.				
	303	6,822,564	11-23-2004	Al-Ali				
	304	6,826,419	11-30-2004	Diab et al.				
	305	6,830,711	12-14-2004	Mills et al.				
	306	6,837,848	01-04-2005	Bonner et al.				
	307	6,841,535	01-11-2005	Divita et al.				
	308	6,850,787	02-01-2005	Weber et al.				
	309	6,850,788	02-01-2005	Al-Ali				
	310	6,852,083	02-08-2005	Caro et al.				
	311	6,855,112	02-15-2005	Kao et al.				
	312	6,860,266	03-01-2005	Blike				
	313	6,861,639	03-01-2005	Al-Ali				
	314	6,897,788	05-24-2005	Khair et al.				
	315	6,898,452	05-24-2005	Al-Ali et al.				
	316	6,907,237	06-14-2005	Dorenbosch et al.				
	317	6,915,149	07-05-2005	Ben-haim				
	318	6,920,345	07-19-2005	Al-Ali et al.				
	319	6,931,268	08-16-2005	Kiani-Azarbayjany et al.				

Examiner Signature		Date Considered				

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

	Application No.	15/499619	
INFORMATION DISCLOSURE	Filing Date	April 27, 2017	
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali	
STATEMENT BT ATTEIOANT	Art Unit	2685	
(Multiple sheets used when necessary)	Examiner	Unknown	
SHEET 12 OF 45	Attorney Docket No.	MASIMO.317C9	

	U.S. PATENT DOCUMENTS								
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear				
	320	6,934,570	08-23-2005	Kiani et al.					
	321	6,939,305	09-06-2005	Flaherty et al.					
	322	6,943,348	09-13-2005	Coffin IV					
	323	6,950,687	09-27-2005	Al-Ali					
	324	6,952,340	10-04-2005	Kyoung Sun Son					
	325	6,961,598	11-01-2005	Diab					
	326	6,970,792	11-29-2005	Diab					
	327	6,979,812	12-27-2005	Al-Ali					
	328	6,980,419	12-27-2005	Smith et al.					
	329	6,983,179	01-03-2006	Ben-haim					
	330	6,985,764	01-10-2006	Mason et al.					
	331	6,988,989	01-24-2006	Weiner et al.					
	332	6,990,087	01-24-2006	Rao et al					
	333	6,993,371	01-31-2006	Kiani et al.					
	334	6,996,427	02-07-2006	Ali et al.					
	335	6,997,884	02-14-2006	Ulmsten					
	336	6,999,904	02-14-2006	Weber et al.					
	337	7,003,338	02-21-2006	Weber et al.					
	338	7,003,339	02-21-2006	Diab et al.					
	339	7,015,451	03-21-2006	Dalke et al.					
	340	7,024,233	04-04-2006	Ali et al.					
	341	7,025,729	04-11-2006	De Chazal et al.					
	342	7,027,849	04-11-2006	Al-Ali					
	343	7,030,749	04-18-2006	Al-Ali					
	344	7,033,761	04-25-2006	Shafer					
	345	7,035,686	04-25-2006	Hogan					
	346	7,039,449	05-02-2006	Al-Ali					
	347	7,041,060	05-09-2006	Flaherty et al					
	348	7,044,918	05-16-2006	Diab					

Examiner Signature	Date Considered
* Examiner: Initial if reference considered, whether or not citation is in conform	ance with MPEP 609 Draw line through citation if not

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

	Application No.	15/499619
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Filing Date	April 27, 2017
	First Named Inventor	Ammar Al-Ali
	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 13 OF 45	Attorney Docket No.	MASIMO.317C9

			U.S. PATENT	DOCUMENTS	
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	349	7,044,930	05-16-2006	Stromberg	
	350	7,063,666	06-20-2006	Weng et al.	
	351	7,067,893	06-27-2006	Mills et al.	
	352	7,079,035	07-18-2006	Bock et al.	
	353	7,096,052	08-22-2006	Mason et al.	
	354	7,096,054	08-22-2006	Abdul-Hafiz et al.	
	355	7,132,641	11-07-2006	Schulz et al.	
	356	7,142,901	11-28-2006	Kiani et al.	
	357	7,149,561	12-12-2006	Diab	
	358	7,186,966	03-06-2007	Al-Ali	
	359	7,188,621	03-13-2007	DeVries et al.	
	360	7,190,261	03-13-2007	Al-Ali	
	361	7,208,119	04-24-2007	Kurtock et al.	
	362	7,215,984	05-08-2007	Diab	
	363	7,215,986	05-08-2007	Diab	
	364	7,221,971	05-22-2007	Diab	
	365	7,225,006	05-29-2007	Al-Ali et al.	
	366	7,225,007	05-29-2007	Al-Ali	
	367	7,229,415	06-12-2007	Schwartz	
	368	7,239,905	07-03-2007	Kiani-Azarbayjany et al.	
	369	7,241,287	07-10-2007	Shehada et al.	
	370	7,244,251	07-17-2007	Shehada et al.	
	371	7,245,373	07-17-2007	Soller et al.	
	372	7,245,953	07-17-2007	Parker	
	373	7,252,659	08-17-2007	Shehada et al.	
	374	7,254,429	08-07-2007	Schurman et al.	
	375	7,254,431	08-07-2007	Al-Ali	
	376	7,254,433	08-07-2007	Diab et al.	
	377	7,254,434	08-07-2007	Schulz et al.	

Examiner Signature	Date Considered
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	Application No.	15
INFORMATION DISCLOSURE	Filing Date	Ap
STATEMENT BY APPLICANT	First Named Inventor	Ap
STATEMENT BI ALLEIOANT	Art Unit	26
(Multiple sheets used when peeessan)	Examinor	Ur

(Multiple sheets used when necessary) SHEET 14 OF 45

Application No.	15/499619
Filing Date	April 27, 2017
First Named Inventor	Ammar Al-Ali
Art Unit	2685
Examiner	Unknown
Attorney Docket No.	MASIMO.317C9

U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number <i>Number - Kind Code (if known)</i> Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	378	7,256,708	08-14-2007	Rosenfeld	
	379	7,261,697	08-28-2007	Berstein	
	380	7,264,616	09-04-2007	Shehada et al.	
	381	7,267,671	09-11-2007	Shehada et al.	
	382	7,272,425	09-18-2007	Al-Ali	
	383	7,274,955	09-25-2007	Kiani et al.	
	384	7,280,858	10-09-2007	Al-Ali et al.	
	385	7,285,090	10-23-2007	Stivoric	
	386	7,289,835	10-30-2007	Mansfield et al.	
	387	7,292,883	11-06-2007	De Felice et al.	
	388	7,295,866	11-13-2007	Al-Ali	
	389	7,307,543	12-11-2007	Rosenfeld	
	390	7,313,423	12-25-2007	Griffin et al.	
	391	7,314,446	01-01-2008	Byrd et al.	
	392	7,315,825	01-01-2008	Rosenfeld	
	393	7,321,862	01-22-2008	Rosenfeld	
	394	7,322,971	01-29-2008	Shehada et al.	
	395	7,328,053	02-05-2008	Diab et al.	
	396	7,332,784	02-19-2008	Mills et al.	
	397	7,340,287	03-04-2008	Mason et al.	
	398	7,341,559	03-11-2008	Schulz et al.	
	399	7,343,186	03-11-2008	Lamego et al.	
	400	7,355,512	04-08-2008	Al-Ali	
	401	7,356,178	04-08-2008	Ziel et al.	
	402	7,356,365	04-08-2008	Schurman	
	403	7,371,981	05-13-2008	Abdul-Hafiz	
	404	7,373,193	05-13-2008	Al-Ali et al.	
	405	7,373,194	05-13-2008	Weber et al.	
	406	7,376,453	05-20-2008	Diab et al.	

Examiner Signature	Date Considered
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Αβ	pplication No.	15/499619
INFORMATION DISCLOSURE	iling Date	April 27, 2017
STATEMENT BY APPLICANT	irst Named Inventor	Ammar Al-Ali
	art Unit	2685
(Multiple sheets used when necessary) Ex	xaminer	Unknown
SHEET 15 OF 45 At	ttorney Docket No.	MASIMO.317C9

U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	407	7,377,794	05-27-2008	Al Ali et al.	
	408	7,377,899	05-27-2008	Weber et al.	
	409	7,378,975	05-27-2008	Smith et al.	
	410	7,382,247	06-03-2008	Welch et al.	
	411	7,383,070	06-03-2008	Diab et al.	
	412	7,390,299	06-24-2008	Weiner et al.	
	413	7,395,216	07-01-2008	Rosenfeld	
	414	7,411,509	08-12-2008	Rosenfeld	
	415	7,413,546	08-19-2008	Agutter et al.	
	416	7,415,297	08-19-2008	Al-Ali et al.	
	417	7,419,483	09-02-2008	Shehada	
	418	7,428,432	09-23-2008	Ali et al.	
	419	7,433,827	10-07-2008	Rosenfeld	
	420	7,438,683	10-21-2008	Al-Ali et al.	
	421	7,439,856	10-21-2008	Weiner et al.	
	422	7,440,787	10-21-2008	Diab	
	423	7,454,240	11-18-2008	Diab et al.	
	424	7,454,359	11-18-2008	Rosenfeld	
	425	7,454,360	11-18-2008	Rosenfeld	
	426	7,462,151	12-09-2008	Childre et al.	
	427	7,467,002	12-16-2008	Weber et al.	
	428	7,467,094	12-16-2008	Rosenfeld	
	429	7,469,157	12-23-2008	Diab et al.	
	430	7,471,969	12-30-2008	Diab et al.	
	431	7,471,971	12-30-2008	Diab et al.	
	432	7,475,019	01-06-2009	Rosenfeld	
	433	7,483,729	01-27-2009	Al-Ali et al.	
	434	7,483,730	01-27-2009	Diab et al.	
	435	7,489,250	02-10-2009	Bock et al.	

Examiner Signature	Date Considered
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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT BT ATTEIOANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 16 OF 45	Attorney Docket No.	MASIMO.317C9

U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	436	7,489,958	02-10-2009	Diab et al.	
	437	7,496,391	02-24-2009	Diab et al.	
	438	7,496,393	02-24-2009	Diab et al.	
	439	7,497,828	03-03-2009	Wilk et al.	
	440	7,499,741	03-03-2009	Diab et al.	
	441	7,499,835	03-03-2009	Weber et al.	
	442	7,500,950	03-10-2009	Al-Ali et al.	
	443	7,509,154	03-24-2009	Diab et al.	
	444	7,509,494	03-24-2009	Al-Ali	
	445	7,510,849	03-31-2009	Schurman et al.	
	446	7,515,043	04-07-2009	Welch et al.	
	447	7,515,044	04-07-2009	Welch et al.	
	448	7,526,328	04-28-2009	Diab et al.	
	449	7,530,942	05-12-2009	Diab	
	450	7,530,949	05-12-2009	Al Ali et al.	
	451	7,530,955	05-12-2009	Diab et al.	
	452	7,532,919	05-12-2009	Soyemi et al.	
	453	7,549,961	06-23-2009	Hwang	
	454	7,551,717	06-23-2009	Tome et al.	
	455	7,559,520	07-14-2009	Quijano et al.	
	456	7,563,110	07-21-2009	Al-Ali et al.	
	457	7,577,475	08-18-2009	Consentino et al	
	458	7,590,950	09-15-2009	Collins et al.	
	459	7,596,398	09-29-2009	Al-Ali et al.	
	460	7,597,665	10-06-2009	Wilk et al.	
	461	7,612,999	11-03-2009	Clark et al.	
	462	7,616,303	11-10-2009	Yang et al.	
	463	7,618,375	11-17-2009	Flaherty	
	464	7,639,145	12-29-2009	Lawson et al.	

Examiner Signature	Date Considered
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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT BT ATTEIOANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 17 OF 45	Attorney Docket No.	MASIMO.317C9

	U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number <i>Number - Kind Code (if known)</i> Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	
	465	7,647,083	01-12-2010	Al-Ali et al.		
	466	7,650,291	01-19-2010	Rosenfeld		
	467	7,654,966	02-02-2010	Westinskow et al.		
	468	7,684,845	03-23-2010	Juan		
	469	7,689,437	03-30-2010	Teller et al.		
	470	7,693,697	04-06-2010	Westinskow et al.		
	471	7,722,542	05-25-2010	Lia et al.		
	472	7,729,733	06-01-2010	Al-Ali et al.		
	473	7,734,320	06-08-2010	Al-Ali		
	474	7,736,318	06-15-2010	Consentino et al		
	475	7,740,590	06-22-2010	Bernstein		
	476	7,761,127	07-20-2010	Al-Ali et al.		
	477	7,761,128	07-20-2010	Al-Ali et al.		
	478	7,763,420	07-27-2010	Strizker et al.		
	479	7,764,982	07-27-2010	Dalke et al.		
	480	7,766,818	08-10-2010	lketani et al.		
	481	7,774,060	08-10-2012	Westenskow et al.		
	482	7,778,851	08-17-2010	Schoenberg et al.		
	483	7,791,155	09-07-2010	Diab		
	484	7,794,407	09-14-2010	Rothenberg		
	485	7,801,581	09-21-2010	Diab		
	486	7,806,830	10-05-2010	Bernstein		
	487	7,820,184	10-26-2010	Strizker et al.		
	488	7,822,452	10-26-2010	Schurman et al.		
	489	7,831,450	11-09-2010	Schoenberg		
	490	7,841,986	11-30-2010	He et al.		
	491	7,844,313	11-30-2010	Kiani et al.		
	492	7,844,314	11-30-2010	Al-Ali		
	493	7,844,315	11-30-2010	Al-Ali		

Examiner Signature	Date Considered	
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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT BT AT LIVANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 18 OF 45	Attorney Docket No.	MASIMO.317C9

U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	494	7,848,935	12-07-2010	Gotlib	
	495	7,858,322	12-28-2010	Tymianski et al.	
	496	7,865,222	01-04-2011	Weber et al.	
	497	7,865,232	01-04-2011	Krishnaswamy et al.	
	498	7,873,497	01-18-2011	Weber et al.	
	499	7,880,606	02-01-2011	Al-Ali	
	500	7,880,626	02-01-2011	Al-Ali et al.	
	501	7,881,892	02-01-2011	Soyemi et al.	
	502	7,884,314	02-08-2011	Hamada	
	503	7,890,156	02-15-2011	Ooi et al.	
	504	7,891,355	02-22-2011	Al-Ali et al.	
	505	7,894,868	02-22-2011	Al-Ali et al.	
	506	7,899,507	03-01-2011	Al-Ali et al.	
	507	7,899,518	03-01-2011	Trepagnier et al.	
	508	7,904,132	03-08-2011	Weber et al.	
	509	7,909,772	03-22-2011	Popov et al.	
	510	7,910,875	03-22-2011	Al-Ali	
	511	7,914,514	03-29-2011	Calderon	
	512	7,919,713	04-05-2011	Al-Ali et al.	
	513	7,937,128	05-03-2011	Al-Ali	
	514	7,937,129	05-03-2011	Mason et al.	
	515	7,937,130	05-03-2011	Diab et al.	
	516	7,941,199	05-10-2011	Kiani	
	517	7,951,086	05-31-2011	Flaherty et al.	
	518	7,957,780	06-07-2011	Lamego et al.	
	519	7,962,188	06-14-2011	Kiani et al.	
	520	7,962,190	06-14-2011	Diab et al.	
	521	7,963,927	06-21-2011	Kelleher et al.	
	522	7,967,749	06-28-2011	Hutchinson et al.	

Examiner Signature	Date Considered
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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT BT AT LIVANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 19 OF 45	Attorney Docket No.	MASIMO.317C9

	U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	
	523	7,976,472	07-12-2011	Kiani		
	524	7,988,637	08-02-2011	Diab		
	525	7,988,639	08-02-2011	Starks		
	526	7,990,382	08-02-2011	Kiani		
	527	7,991,446	08-02-2011	Al-Ali et al.		
	528	7,991,463	08-02-2011	Kelleher et al.		
	529	7,991,625	08-02-2011	Rosenfeld		
	530	8,000,761	08-16-2011	Al-Ali		
	531	8,008,088	08-30-2011	Bellott et al.		
	532	8,019,400	09-13-2011	Diab et al.		
	533	8,027,846	09-27-2011	Schoenberg		
	534	8,028,701	10-04-2011	Al-Ali et al.		
	535	8,029,765	10-04-2011	Bellott et al.		
	536	8,033,996	10-11-2011	Behar		
	537	8,036,727	10-11-2011	Schurman et al.		
	538	8,036,728	10-11-2011	Diab et al.		
	539	8,036,736	10-11-2011	Snyder et al.		
	540	8,038,625	10-18-2011	Afonso X et al.		
	541	8,046,040	10-25-2011	Ali et al.		
	542	8,046,041	10-25-2011	Diab et al.		
	543	8,046,042	10-25-2011	Diab et al.		
	544	8,048,040	11-01-2011	Kiani		
	545	8,050,728	11-01-2011	Al-Ali et al.		
	546	8,068,104	11-29-2011	Rampersad		
	547	8,073,707	12-06-2011	Teller et al.		
	548	8,094,013	01-10-2012	Lee et al.		
	549	8,118,620	02-21-2012	Al-Ali et al.		
	550	8,126,528	02-28-2012	Diab et al.		
	551	8,128,572	03-06-2012	Diab et al.		

Examiner Signature	Date Considered
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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT BT ATTEIOANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 20 OF 45	Attorney Docket No.	MASIMO.317C9

			U.S. PATENT	DOCUMENTS	-
Examiner Initials	Cite No.	Document Number <i>Number - Kind Code (if known)</i> Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	552	8,130,105	03-06-2012	Al-Ali et al.	
	553	8,145,287	03-27-2012	Diab et al.	
	554	8,150,487	04-03-2012	Diab et al.	
	555	8,170,887	05-01-2012	Rosenfeld	
	556	8,175,672	05-08-2012	Parker	
	557	8,175,895	05-08-2012	Rosenfeld	
	558	8,180,420	05-15-2012	Diab et al.	
	559	8,182,443	05-22-2012	Kiani	
	560	8,185,180	05-22-2012	Diab et al.	
	561	8,190,223	05-29-2012	Al-Ali et al.	
	562	8,190,227	05-29-2012	Diab et al.	
	563	8,200,308	06-12-2012	Zhang et al.	
	564	8,203,438	06-19-2012	Kiani et al.	
	565	8,203,704	06-19-2012	Merritt et al.	
	566	8,204,566	06-19-2012	Schurman et al.	
	567	8,206,312	06-26-2012	Farquhar	
	568	8,214,007	07-03-2012	Baker et al.	
	569	8,219,172	07-10-2012	Schurman et al.	
	570	8,224,411	07-17-2012	Al-Ali et al.	
	571	8,228,181	07-24-2012	Al-Ali	
	572	8,229,533	07-24-2012	Diab et al.	
	573	8,233,955	07-31-2012	Al-Ali et al.	
	574	8,235,907	08-07-2012	Wilk et al.	
	575	8,239,780	08-07-2012	Manetta et al.	
	576	8,241,213	08-14-2012	Lynn et al.	
	577	8,244,325	08-14-2012	Al-Ali et al.	
	578	8,249,815	08-21-2012	Taylor	
	579	8,255,026	08-28-2012	Al-Ali	
	580	8,255,027	08-28-2012	Al-Ali et al.	

Examiner Signature	Date Considered
*Examiner: Initial if reference considered, whether or not citation is in conform in conformance and not considered. Include copy of this form with next comm	0

INFORMATION DISCLOSURE

(Multiple sheets used when necessary) SHEET 21 OF 45

Application No.	15/499619
Filing Date	April 27, 2017
First Named Inventor	Ammar Al-Ali
Art Unit	2685
Examiner	Unknown
Attorney Docket No.	MASIMO.317C9

U.S. PATENT DOCUMENTS						
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	
	581	8,255,028	08-28-2012	Al-Ali et al.		
	582	8,260,577	09-04-2012	Weber et al.		
	583	8,265,723	09-11-2012	McHale et al.		
	584	8,274,360	09-25-2012	Sampath et al.		
	585	8,294,588	10-23-2012	Fisher et al.		
	586	8,294,716	10-23-2012	Lord et al.		
	587	8,301,217	10-30-2012	Al-Ali et al.		
	588	8,306,596	11-06-2012	Schurman et al.		
	589	8,310,336	11-13-2012	Muhsin et al.		
	590	8,311,747	11-13-2012	Taylor		
	591	8,311,748	11-13-2012	Taylor et al.		
	592	8,315,683	11-20-2012	Al-Ali et al.		
	593	8,315,812	11-20-2012	Taylor		
	594	8,315,813	11-20-2012	Taylor et al.		
	595	8,315,814	11-20-2012	Taylor et al.		
	596	8,321,150	11-27-2012	Taylor		
	597	8,326,649	12-04-2012	Rosenfeld		
	598	8,328,793	12-11-2012	Birkenbach et al.		
	599	8,337,403	12-25-2012	Al-Ali et al.		
	600	8,346,330	01-01-2013	Lamego		
	601	8,353,842	01-15-2013	Al-Ali et al.		
	602	8,355,766	01-15-2013	MacNeish, III et al.		
	603	8,359,080	01-22-2013	Diab et al.		
	604	8,360,936	01-29-2013	Dibenedetto et al.		
	605	8,364,223	01-29-2013	Al-Ali et al.		
	606	8,364,226	01-29-2013	Diab et al.		
	607	8,374,665	02-12-2013	Lamego		
	608	8,385,995	02-26-2013	Al-ali et al.		
	609	8,385,996	02-26-2013	Smith et al.		

Examiner Signature			Date Considered				

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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT BT ATTEIOANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 22 OF 45	Attorney Docket No.	MASIMO.317C9

		Document Number	U.S. PATENT Publication		Pages, Columns, Lines Where
Examiner Initials	Cite No.	Number - Kind Code (if known) Example: 1,234,567 B1	Date MM-DD-YYYY	Name	Relevant Figures Appear
	610	8,388,353	03-05-2013	Kiani et la.	
	611	8,399,822	03-19-2013	Al-Ali	
	612	8,401,602	03-19-2013	Kiani	
	613	8,401,874	03-19-2013	Rosenfeld	
	614	8,405,608	03-26-2013	Al-Ali et al.	
	615	8,414,499	04-09-2013	Al-Ali et al.	
	616	8,418,524	04-16-2013	Al-Ali	
	617	8,423,106	04-16-2013	Lamego et al.	
	618	8,428,967	04-23-2013	Olsen et al.	
	619	8,430,817	04-30-2013	Al-Ali et al.	
	620	8,437,825	05-07-2013	Dalvi et al.	
	621	8,455,290	06-04-2013	Siskavich	
	622	8,457,703	06-04-2013	Al-Ali	
	623	8,457,707	06-04-2013	Kiani	
	624	8,463,349	06-11-2013	Diab et al.	
	625	8,466,286	06-18-2013	Bellot et al.	
	626	8,471,713	06-25-2013	Poeze et al.	
	627	8,473,020	06-25-2013	Kiani et al.	
	628	8,483,787	07-09-2013	Al-Ali et al.	
	629	8,489,167	07-16-2013	Buxton et al.	
	630	8,489,364	07-16-2013	Weber et al.	
	631	8,498,684	07-30-2013	Weber et al.	
	632	8,504,128	08-06-2013	Blank et al.	
	633	8,509,867	08-13-2013	Workman et al.	
	634	8,515,509	08-20-2013	Bruinsma et al.	
	635	8,523,781	09-03-2013	Al-Ali	
	636	8,529,301	09-10-2013	Al-Ali et al.	
	637	8,532,727	09-10-2013	Ali et al.	
	638	8,532,728	09-10-2013	Diab et al.	

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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT BT AT LIVANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 23 OF 45	Attorney Docket No.	MASIMO.317C9

			U.S. PATENT	DOCUMENTS	D
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	639	8,547,209	10-01-2013	Kiani et al.	
	640	8,548,548	10-01-2013	Al-Ali	
	641	8,548,549	10-01-2013	Schurman et al.	
	642	8,548,550	10-01-2013	Al-Ali et al.	
	643	8,560,032	10-15-2013	Al-Ali et al.	
	644	8,560,034	10-15-2013	Diab et al.	
	645	8,565,847	10-22-2013	Buxton et al.	
	646	8,570,167	10-29-2013	Al-Ali	
	647	8,570,503	10-29-2013	Vo et al.	
	648	8,571,617	10-29-2013	Reichgott et al.	
	649	8,571,618	10-29-2013	Lamego et al.	
	650	8,571,619	10-29-2013	Al-Ali et al.	
	651	8,577,431	11-05-2013	Lamego et al.	
	652	8,578,082	11-05-2013	Medina et al.	
	653	8,579,813	11-12-2013	Causey, III et al.	
	654	8,581,732	11-12-2013	Al-Ali et al.	
	655	8,584,345	11-19-2013	Al-Ali et al.	
	656	8,588,880	11-19-2013	Abdul-Hafiz et al.	
	657	8,588,924	11-19-2013	Dion	
	658	8,597,287	12-03-2013	Benamou et al.	
	659	8,600,467	12-03-2013	Al-Ali et al.	
	660	8,600,777	12-03-2013	Schoenberg	
	661	8,606,342	12-10-2013	Diab	
	662	8,620,678	12-31-2013	Gotlib	
	663	8,626,255	01-07-2014	Al-Ali et al.	
	664	8,630,691	01-14-2014	Lamego et al.	
	665	8,634,889	01-21-2014	Al-Ali et al.	
	666	8,641,631	02-04-2014	Sierra et al.	
	667	8,652,060	02-18-2014	Al-Ali	

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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT BT ATTEIOANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 24 OF 45	Attorney Docket No.	MASIMO.317C9

			U.S. PATENT	DOCUMENTS	
Examiner Initials	Cite No.	Document Number <i>Number - Kind Code (if known)</i> Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	668	8,663,107	03-04-2014	Kiani	
	669	8,666,468	03-04-2014	Al-Ali	
	670	8,667,967	03-11-2014	Al- Ali et al.	
	671	8,670,811	03-11-2014	O'Reilly	
	672	8,670,814	03-11-2014	Diab et al.	
	673	8,676,286	03-18-2014	Weber et al.	
	674	8,682,407	03-25-2014	Al-Ali	
	675	8,690,771	04-08-2014	Wekell et al.	
	676	8,690,799	04-08-2014	Telfort et al.	
	677	8,700,112	04-15-2014	Kiani	
	678	8,702,627	04-22-2014	Telfort et al.	
	679	8,706,179	04-22-2014	Parker	
	680	8,712,494	04-29-2014	MacNeish, III et al.	
	681	8,715,206	05-06-2014	Telfort et al.	
	682	8,718,735	05-06-2014	Lamego et al.	
	683	8,718,737	05-06-2014	Diab et al.	
	684	8,718,738	05-06-2014	Blank et al.	
	685	8,720,249	05-13-2014	Al-Ali	
	686	8,721,541	05-13-2014	Al-Ali et al.	
	687	8,721,542	05-13-2014	Al-Ali et al.	
	688	8,723,677	05-13-2014	Kiani	
	689	8,740,792	06-03-2014	Kiani et al.	
	690	8,754,776	06-17-2014	Poeze et al.	
	691	8,755,535	06-17-2014	Telfort et al.	
	692	8,755,856	06-17-2014	Diab et al.	
	693	8,755,872	06-17-2014	Marinow	
	694	8,761,850	06-24-2014	Lamego	
	695	8,764,671	07-01-2014	Kiani	
	696	8,768,423	07-01-2014	Shakespeare et al.	

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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT BI ALLEIOANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 25 OF 45	Attorney Docket No.	MASIMO.317C9

_ ·	0.1	Document Number	U.S. PATENT Publication		Pages, Columns, Lines Where
Examiner Initials	Cite No.	Number - Kind Code (if known) Example: 1,234,567 B1		Name	Relevant Passages or Relevant Figures Appear
	697	8,771,204	07-08-2014	Telfort et al.	
	698	8,777,634	07-15-2014	Kiani et al.	
	699	8,781,543	07-15-2014	Diab et al.	
	700	8,781,544	07-15-2014	Al-Ali et al.	
	701	8,781,549	07-15-2014	Al-Ali et al.	
	702	8,788,003	07-22-2014	Schurman et al.	
	703	8,790,268	07-29-2014	Al-Ali	
	704	8,801,613	08-12-2014	Al-Ali et al.	
	705	8,818,477	08-26-2014	Soller	
	706	8,821,397	09-02-2014	Al-Ali et al.	
	707	8,821,415	09-02-2014	Al-Ali et al.	
	708	8,830,449	09-09-2014	Lamego et al.	
	709	8,831,700	09-09-2014	Schurman et al.	
	710	8,840,549	09-23-2014	Al-Ali et al.	
	711	8,845,543	09-30-2014	Diab et al.	
	712	8,847,740	09-30-2014	Kiani et al.	
	713	8,849,365	09-30-2014	Smith et al.	
	714	8,852,094	10-07-2014	Al-Ali et al.	
	715	8,852,994	10-07-2014	Wojtczuk et al.	
	716	8,866,620	10-21-2014	Amir	
	717	8,868,147	10-21-2014	Stippick et al.	
	718	8,868,150	10-21-2014	Al-Ali et al.	
	719	8,870,792	10-28-2014	Al-Ali et al.	
	720	8,873,035	10-28-2014	Yang et al.	
	721	8,878,888	11-04-2014	Rosenfeld	
	722	8,886,271	11-11-2014	Kiani et al.	
	723	8,888,539	11-18-2014	Al-Ali et al.	
	724	8,888,708	11-18-2014	Diab et al.	
	725	8,892,180	11-18-2014	Weber et al.	

Examiner Signature	Date Considered
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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT BT AT LIVANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 26 OF 45	Attorney Docket No.	MASIMO.317C9

Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	726	8,897,847	11-25-2014	Al-Ali	
	727	8,907,287	12-09-2014	Vanderpohl	
	728	8,909,310	12-09-2014	Lamego et al.	
	729	8,911,377	12-16-2014	Al-Ali	
	730	8,912,909	12-16-2014	Al-Ali et al.	
	731	8,920,317	12-30-2014	Al-Ali et al.	
	732	8,921,699	12-30-2014	Al-Ali et al.	
	733	8,922,382	12-30-2014	Al-Ali et al.	
	734	8,929,964	01-06-2015	Al-Ali et al.	
	735	8,942,777	01-27-2015	Diab et al.	
	736	8,948,834	02-03-2015	Diab et al.	
	737	8,948,835	02-03-2015	Diab	
	738	8,951,248	02-10-2015	Messerly et al.	
	739	8,956,292	02-17-2015	Wekell et al.	
	740	8,965,471	02-24-2015	Lamego	
	741	8,983,564	03-17-2015	Al-Ali	
	742	8,989,831	03-24-2015	Al-Ali et al.	
	743	8,996,085	03-31-2015	Kiani et al.	
	744	8,998,809	04-07-2015	Kiani	
	745	9,028,429	05-12-2015	Telfort et al.	
	746	9,037,207	05-19-2015	Al-Ali et al.	
	747	9,057,689	06-16-2015	Soller	
	748	9,060,721	06-23-2015	Reichgott et al.	
	749	9,066,666	06-30-2015	Kiani	
	750	9,066,680	06-30-2015	Al-Ali et al.	
	751	9,072,474	07-07-2015	Al-Ali et al.	
	752	9,078,560	07-14-2015	Schurman et al.	
	753	9,084,569	07-21-2015	Weber et al.	
	754	9,095,291	08-04-2015	Soller	

Examiner Signature	Date Considered
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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT BT ATTEIOANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 27 OF 45	Attorney Docket No.	MASIMO.317C9

U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	755	9,095,316	08-04-2015	Welch et al.	
	756	9,106,038	08-11-2015	Telfort et al.	
	757	9,107,625	08-18-2015	Telfort et al.	
	758	9,107,626	08-18-2015	Al-Ali et al.	
	759	9,113,831	08-25-2015	Al-Ali	
	760	9,113,832	08-25-2015	Al-Ali	
	761	9,119,595	09-01-2015	Lamego	
	762	9,131,881	09-15-2015	Diab et al.	
	763	9,131,882	09-15-2015	Al-Ali et al.	
	764	9,131,883	09-15-2015	Al-Ali	
	765	9,131,917	09-15-2015	Telfort et al.	
	766	9,138,180	09-22-2015	Coverston et al.	
	767	9,138,182	09-22-2015	Al-Ali et al.	
	768	9,138,192	09-22-2015	Weber et al.	
	769	9,142,117	09-22-2015	Muhsin et al.	
	770	9,153,112	10-06-2015	Kiani et al.	
	771	9,153,121	10-06-2015	Kiani et al.	
	772	9,161,696	10-20-2015	Al- Ali et al.	
	773	9,161,713	10-20-2015	Al-Ali et al.	
	774	9,167,995	10-27-2015	Lamego et al.	
	775	9,176,141	11-03-2015	Al-Ali et al.	
	776	9,186,102	11-17-2015	Bruinsma et al.	
	777	9,192,312	11-24-2015	Al-Ali	
	778	9,192,329	11-24-2015	Al-Ali	
	779	9,192,351	11-24-2015	Telfort et al.	
	780	9,195,385	11-24-2015	Al-Ali et al.	
	781	9,211,072	12-15-2015	Kiani	
	782	9,211,095	12-15-2015	Al-Ali	
	783	9,218,454	12-22-2015	Kiani et al.	

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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 28 OF 45	Attorney Docket No.	MASIMO.317C9

	U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	
	784	9,226,696	01-05-2016	Kiani		
	785	9,241,662	01-26-2016	Al-Ali et al.		
	786	9,245,668	01-26-2016	Vo et al.		
	787	9,259,185	02-16-2016	Abdul-Hafiz et al.		
	788	9,262,586	02-16-2016	Steiger et al.		
	789	9,267,572	02-23-2016	Barker et al.		
	790	9,277,880	03-08-2016	Poeze et al.		
	791	9,289,167	03-22-2016	Diab et al.		
	792	9,295,421	03-29-2016	Kiani et al.		
	793	9,307,928	04-12-2016	Al-Ali et al.		
	794	9,323,894	04-26-2016	Kiani		
	795	9,326,712	05-03-2016	Kiani		
	796	9,333,316	05-10-2016	Kiani		
	797	9,339,220	05-17-2016	Lamego et al.		
	798	9,341,565	05-17-2016	Lamego et al.		
	799	9,351,673	05-31-2016	Diab et al.		
	800	9,351,675	05-31-2016	Al-Ali et al.		
	801	9,364,181	06-14-2016	Kiani et al.		
	802	9,368,671	06-14-2016	Wojtczuk et al.		
	803	9,370,325	06-21-2016	Al-Ali et al.		
	804	9,370,326	06-21-2016	McHale et al.		
	805	9,370,335	06-21-2016	Al-ali et al.		
	806	9,375,185	06-28-2016	Ali et al.		
	807	9,386,953	07-12-2016	Al-Ali		
	808	9,386,961	07-12-2016	Al-Ali et al.		
	809	9,392,945	07-19-2016	Al-Ali et al.		
	810	9,397,448	07-19-2016	Al-Ali et al.		
	811	9,436,645	09-06-2016	Al-Ali et al.		
	812	9,529,762	12-27-2016	Gisler et al.		

Examiner Signature	Date Considered
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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI ALLEOANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 29 OF 45	Attorney Docket No.	MASIMO.317C9

			U.S. PATENT	DOCUMENTS	
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	813	2001/0011355	08-02-2001	Kawai	
	814	2001/0031922	10-18-2001	Weng et al.	
	815	2001/0046366	11-26-2001	Susskind	
	816	2002/0045836	04-18-2002	Alkawwas	
	817	2002/0052311	05-02-2002	Solomon et al.	
	818	2002/0063690	05-30-2002	Chung et al.	
	819	2002/0140675	10-03-2002	Ali et al.	
	820	2002/0177758	11-28-2002	Schoenberg	
	821	2002/0198445	12-26-2002	Dominguez et al.	
	822	2003/0027326	02-06-2003	Ulmsten et al.	
	823	2003/0052787	03-20-2003	Zerhusen et al.	
	824	2003/0058838	03-27-2003	Wengrovitz	
	825	2003/0158466	08-21-2003	Lynn et al.	
	826	2003/0216670	11-20-2003	Beggs	
	827	2004/0013647	01-22-2004	Solomon et al.	
	828	2004/0122787	06-24-2004	Avinash et al.	
	829	2004/0126007	07-01-2004	Ziel et al.	
	830	2004/0139571	07-22-2004	Chang et al.	
	831	2004/0147818	07-29-2004	Levy et al.	
	832	2004/0186357	09-23-2004	Soderberg et al.	
	833	2004/0230118	11-18-2004	Shehada et al.	
	834	2004/0230132	11-18-2004	Shehada et al.	
	835	2004/0230179	11-18-2004	Shehada et al.	
	836	2004/0243017	12-02-2004	Causevic	
	837	2004/0249670	12-09-2004	Noguchi et al.	
	838	2004/0254431	12-16-2004	Shehada et al.	
	839	2004/0254432	12-16-2004	Shehada et al.	
	840	2004/0267103	12-30-2004	Li et al.	
	841	2005/0020918	01-27-2005	Wilk et al.	

Examiner Signature	Date Considered	
*Examiner: Initial if reference considered, whether or not citation is in conform	ance with MPEP 609. Draw line through citation if not	

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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT BT ATTEIOANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 30 OF 45	Attorney Docket No.	MASIMO.317C9

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Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	
	842	2005/0038332	02-17-2005	Saidara et al.		
	843	2005/0038680	02-17-2005	McMahon		
	844	2005/0080336	04-14-2005	Byrd et al.		
	845	2005/0096542	05-05-2005	Weng et al.		
	846	2005/0113653	05-26-2005	Fox et al.		
	847	2005/0124864	06-09-2005	Mack et al.		
	848	2005/0125256	06-09-2005	Schoenberg		
	849	2005/0164933	07-28-2005	Tymianski et al.		
	850	2005/0191294	09-01-2005	Arap et al.		
	851	2005/0268401	12-08-2005	Dixon et al.		
	852	2005/0277872	12-15-2005	Colby, Jr. et al.		
	853	2006/0049936	03-09-2006	Collins, Jr. et al.		
	854	2006/0058647	03-16-2006	Strommer et al.		
	855	2006/0089543	04-27-2006	Kim et al.		
	856	2006/0094936	05-04-2006	Russ		
	857	2006/0149393	07-06-2006	Calderon		
	858	2006/0155175	07-13-2006	Ogino et al.		
	859	2006/0217684	09-28-2006	Shehada et al.		
	860	2006/0217685	09-28-2006	Shehada et al.		
	861	2006/0224413	10-05-2006	Kim et al.		
	862	2006/0235300	10-19-2006	Weng et al.		
	863	2006/0253042	11-09-2006	Stahmann et al.		
	864	2007/0000490	01-04-2007	DeVries et al.		
	865	2007/0002533	01-04-2007	Kogan et al.		
	866	2007/0021675	01-25-2007	Childre et al.		
	867	2007/0027368	02-01-2007	Collins et al.		
	868	2007/0032733	02-08-2007	Burton et al.		
	869	2007/0055116	03-08-2007	Clark et al.		
	870	2007/0055544	03-08-2007	Jung et al.		

Examiner Signature	Date Considered
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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT BT AT LIOANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 31 OF 45	Attorney Docket No.	MASIMO.317C9

	U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	
	871	2007/0060798	03-15-2007	Krupnik et al.		
	872	2007/0088406	04-19-2007	Bennett et al.		
	873	2007/0096897	05-03-2007	Weiner Herbert S		
	874	2007/0100222	05-03-2007	Mastrototaro et al.		
	875	2007/0118399	05-24-2007	Avinash et al.		
	876	2007/0140475	06-21-2007	Kurtock et al.		
	877	2007/0156033	07-05-2007	Causey et al.		
	878	2007/0157285	07-05-2007	Frank et al.		
	879	2007/0159332	07-12-2007	Koblasz		
	880	2007/0163589	07-19-2007	DeVries et al.		
	881	2007/0185390	08-09-2007	Perkins et al.		
	882	2007/0232941	10-04-2007	Rabinovich		
	883	2007/0244724	10-18-2007	Pendergast et al.		
	884	2007/0254593	11-01-2007	Jollota et al.		
	885	2007/0255114	11-01-2007	Ackermann et al.		
	886	2007/0255116	11-01-2007	Mehta et al.		
	887	2007/0255250	11-01-2007	Moberg Sheldon B		
	888	2007/0282478	12-06-2007	Al-Ali et al.		
	889	2008/0000479	01-03-2008	Elaz et al.		
	890	2008/0003200	01-03-2008	Arap et al.		
	891	2008/0021854	01-24-2008	Jung et al.		
	892	2008/0033661	02-07-2008	Syroid et al.		
	893	2008/0039701	02-14-2008	Ali et al.		
	894	2008/0053438	03-06-2008	DeVries et al.		
	895	2008/0058657	03-06-2008	Schwartz et al.		
	896	2008/0090626	04-17-2008	Griffin et al.		
	897	2008/0091089	04-17-2008	Guillory et al.		
	898	2008/0091090	04-17-2008	Guillory et al.		
	899	2008/0091471	04-17-2008	Michon et al.		

Examiner Signature	Date Considered	
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First Named Inventor	Ammar Al-Ali
Art Unit	2685
Examiner	Unknown
Attorney Docket No.	MASIMO.317C9
	Filing Date First Named Inventor Art Unit Examiner

U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	900	2008/0097167	04-24-2008	Yudkovitch et al.	
	901	2008/0099366	05-01-2008	Niemiec et al.	
	902	2008/0119412	05-22-2008	Tymianski et al.	
	903	2008/0138278	06-12-2008	Scherz et al.	
	904	2008/0169922	07-17-2008	Issokson	
	905	2008/0171919	07-01-2008	Stivoric et al.	
	906	2008/0188795	08-07-2008	Katz et al.	
	907	2008/0194918	08-14-2008	Kulik et al.	
	908	2008/0208912	08-28-2008	Garibaldi	
	909	2008/0221396	09-11-2008	Garces et al.	
	910	2008/0228077	09-18-2008	Wilk et al.	
	911	2008/0275309	11-06-2008	Stivoric et al.	
	912	2008/0281167	11-13-2008	Soderberg et al.	
	913	2008/0281168	11-13-2008	Gibson et al.	
	914	2008/0281181	11-13-2008	Manzione et al.	
	915	2008/0287751	11-01-2008	Stivoric et al.	
	916	2008/0292172	11-27-2008	Assmann et al.	
	917	2008/0300020	12-04-2008	Nishizawa et al.	
	918	2008/0319275	12-25-2008	Chiu et al.	
	919	2008/0319354	12-25-2008	Bell et al.	
	920	2009/0005651	01-01-2009	Ward et al.	
	921	2009/0018808	01-15-2009	Bronstein et al.	
	922	2009/0024008	01-22-2009	Brunner et al.	
	923	2009/0043172	02-12-2009	Zagorchev et al.	
	924	2009/0052623	02-26-2009	Tome et al.	
	925	2009/0054735	02-26-2009	Higgins et al.	
	926	2009/0062682	03-05-2009	Bland et al.	
	927	2009/0069642	03-12-2009	Gao et al.	
	928	2009/0099480	04-16-2009	Salgo et al.	

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STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT BT ATTEICANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 33 OF 45	Attorney Docket No.	MASIMO.317C9

	U.S. PATENT DOCUMENTS				
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	929	2009/0119330	05-01-2009	Sampath et al.	
	930	2009/0119843	05-14-2009	Rodgers et al.	
	931	2009/0124867	05-14-2009	Hirsch et al.	
	932	2009/0131759	05-21-2009	Sims et al.	
	933	2009/0143832	06-04-2009	Saba	
	934	2009/0157058	06-18-2009	Ferren et al.	
	935	2009/0171170	07-02-2009	Li et al.	
	936	2009/0171225	07-02-2009	Gadodia et al.	
	937	2009/0177090	07-09-2009	Grunwald et al.	
	938	2009/0182287	07-16-2009	Kassab	
	939	2009/0226372	09-10-2009	Ruoslahti et al.	
	940	2009/0247984	10-01-2009	Lamego et al.	
	941	2009/0264778	10-22-2009	Markowitz et al.	
	942	2009/0275813	11-05-2009	Davis	
	943	2009/0275844	11-05-2009	Al-Ali	
	944	2009/0281462	11-12-2009	Heliot et al.	
	945	2009/0299157	12-03-2009	Telfort et al.	
	946	2009/0309755	12-17-2009	Williamson er al.	
	947	2009/0322540	12-31-2009	Richardson et al.	
	948	2010/0004518	01-07-2010	Vo et al.	
	949	2010/0030040	02-04-2010	Poeze et al.	
	950	2010/0030094	02-04-2010	Lundback	
	951	2010/0036209	02-11-2010	Ferren et al.	
	952	2010/0069725	03-18-2010	Al-Ali	
	953	2010/0125217	05-20-2010	Kuo et al.	
	954	2010/0144627	06-10-2010	Vitek et al.	
	955	2010/0185101	07-22-2010		
	956	2010/0198622	08-05-2010	Gajic et al.	
	957	2010/0210958	08-19-2010	Manwaring et al.	

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STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT BT ATTEIOANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 34 OF 45	Attorney Docket No.	MASIMO.317C9

	U.S. PATENT DOCUMENTS				
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	958	2010/0298659	11-25-2010	McCombie et al.	
	959	2010/0298660	11-25-2010	McCombie et al.	
	960	2010/0298661	11-25-2010	McCombie et al.	
	961	2010/0298742	11-25-2010	Perlman et al.	
	962	2010/0305412	12-02-2010	Darrah et al.	
	963	2010/0312103	12-09-2010	Gorek et al.	
	964	2010/0317936	12-16-2010	Al-Ali et al.	
	965	2010/0317951	12-16-2010	Rutkowski et al.	
	966	2011/0021930	01-27-2011	Mazzeo et al.	
	967	2011/0023130	01-27-2011	Gudgel et al.	
	968	2011/0028809	02-03-2011	Goodman	
	969	2011/0046495	02-24-2011	Osypka	
	970	2011/0066051	03-17-2011	Moon et al.	
	971	2011/0077473	03-31-2011	Lisogurski	
	972	2011/0078596	03-31-2011	Rawlins et al.	
	973	2011/0080294	04-07-2011	Tanishima et al.	
	974	2011/0082711	04-07-2011	Poeze et al.	
	975	2011/0087083	04-14-2011	Poeze et al.	
	976	2011/0087084	04-14-2011	Jeong et al.	
	977	2011/0087117	04-14-2011	Tremper et al.	
	978	2011/0087756	04-14-2011	Biondi James W	
	979	2011/0098583	04-28-2011	Pandia et al.	
	980	2011/0105854	05-05-2011	Kiani et al.	
	981	2011/0105956	05-05-2011	Hirth	
	982	2011/0118573	05-19-2011	Mckenna	
	983	2011/0125060	05-26-2011	Telfort et al.	
	984	2011/0152629	06-23-2011	Eaton et al.	
	985	2011/0172967	07-14-2011	Al-Ali et al.	
	986	2011/0184252	07-28-2011	Archer et al.	

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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT BI ALLEGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 35 OF 45	Attorney Docket No.	MASIMO.317C9

U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number <i>Number - Kind Code (if known)</i> Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	987	2011/0184253	07-28-2011	Archer et al.	
	988	2011/0208015	08-25-2011	Welch et al.	
	989	2011/0208018	08-25-2011	Kiani	
	990	2011/0208073	08-25-2011	Matsukawa et al.	
	991	2011/0209915	09-01-2011	Telfort et al.	
	992	2011/0212090	09-01-2011	Pedersen et al.	
	993	2011/0213212	09-01-2011	Al-Ali	
	994	2011/0227739	09-22-2011	Gilham et al.	
	995	2011/0230733	09-22-2011	Al-Ali	
	996	2011/0237911	09-29-2011	Lamego et al.	
	997	2011/0237969	09-29-2011	Eckerbom et al.	
	998	2011/0257544	10-20-2011	Kaasinenet al.	
	999	2011/0288383	11-24-2011	Diab	
	1000	2011/0295094	12-01-2011	Doyle et al.	
	1001	2011/0301444	12-08-2011	Al-Ali	
	1002	2012/0004579	01-05-2012	Luo et al.	
	1003	2012/0029300	02-02-2012	Paquet	
	1004	2012/0029879	02-02-2012	Sing et al.	
	1005	2012/0041316	02-16-2012	Al-Ali et al.	
	1006	2012/0046557	02-23-2012	Kiani	
	1007	2012/0059230	03-08-2012	Teller et al.	
	1008	2012/0059267	03-01-2012	Lamego et al.	
	1009	2012/0071771	03-22-2012	Behar	
	1010	2012/0075464	03-29-2012	Derenne et al.	
	1011	2012/0088984	04-12-2012	Al-Ali et al.	
	1012	2012/0095778	04-19-2012	Gross et al.	
	1013	2012/0101353	04-26-2012	Reggiardo et al.	
	1014	2012/0116175	05-10-2012	Al-Ali et al.	
	1015	2012/0123799	05-17-2012	Nolen et al.	

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Art Unit	2685
Examiner	Unknown
Attorney Docket No.	MASIMO.317C9
	Filing Date First Named Inventor Art Unit Examiner

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	1016	2012/0136221	05-31-2012	Killen et al.	
	1017	2012/0165629	06-28-2012	Merritt et al.	
	1018	2012/0179006	07-12-2012	Jansen et al.	
	1019	2012/0184120	07-19-2012	Basta et al.	
	1020	2012/0197619	08-02-2012	Namer Yelin et al.	
	1021	2012/0203078	08-09-2012	Sze et al.	
	1022	2012/0209082	08-01-2012	Al-Ali	
	1023	2012/0209084	08-01-2012	Olsen et al.	
	1024	2012/0226160	09-06-2012	Kudoh	
	1025	2012/0227739	09-01-2012	Kiani	
	1026	2012/0239434	09-20-2012	Breslow et al.	
	1027	2012/0242501	09-27-2012	Tran et al.	
	1028	2012/0265039	10-01-2012	Kiani	
	1029	2012/0282583	11-08-2012	Thaler et al.	
	1030	2012/0283524	11-01-2012	Kiani et al.	
	1031	2012/0284053	11-08-2012	Rosenfeld	
	1032	2012/0286955	11-01-2012	Welch et al.	
	1033	2012/0294801	11-22-2012	Scherz et al.	
	1034	2012/0296178	11-01-2012	Lamego et al.	
	1035	2012/0302894	11-01-2012	Diab et al.	
	1036	2012/0303476	11-29-2012	Krzyzanowski et al.	
	1037	2012/0319816	12-01-2012	Al-Ali	
	1038	2012/0330112	12-01-2012	Lamego et al.	
	1039	2013/0006131	01-03-2013	Narayan et al.	
	1040	2013/0006151	01-03-2013	Main et al.	
	1041	2013/0023775	01-01-2013	Lamego et al.	
	1042	2013/0035603	02-07-2013	Jarausch et al.	
	1043	2013/0041591	02-14-2013	Lamego	
	1044	2013/0046197	02-21-2013	Dlugos, Jr. et al.	

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STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT BT ATTEIOANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 37 OF 45	Attorney Docket No.	MASIMO.317C9

	U.S. PATENT DOCUMENTS				
Examiner Initials	Cite No.	Document Number <i>Number - Kind Code (if known)</i> Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	1045	2013/0046204	02-01-2013	Lamego et al.	
	1046	2013/0060108	03-01-2013	Schurman et al.	
	1047	2013/0060147	03-01-2013	Welch et al.	
	1048	2013/0079610	03-01-2013	Al-Ali	
	1049	2013/0092805	04-18-2013	Funk et al.	
	1050	2013/0096405	04-01-2013	Garfio	
	1051	2013/0096936	04-01-2013	Sampath et al.	
	1052	2013/0109929	05-02-2013	Menzel	
	1053	2013/0109935	05-01-2013	Al-Ali et al.	
	1054	2013/0123616	05-16-2013	Merritt et al.	
	1055	2013/0162433	06-01-2013	Muhsin et al.	
	1056	2013/0178749	07-01-2013	Lamego	
	1057	2013/0190581	07-01-2013	Al-Ali et al.	
	1058	2013/0197328	08-01-2013	Diab et al.	
	1059	2013/0197364	08-01-2013	Han	
	1060	2013/0211214	08-01-2013	Olsen	
	1061	2013/0243021	09-01-2013	Siskavich	
	1062	2013/0253334	09-26-2013	Al-Ali et al.	
	1063	2013/0261494	10-03-2013	Bloom et al.	
	1064	2013/0267804	10-10-2013	Al-Ali	
	1065	2013/0274571	10-01-2013	Diab et al.	
	1066	2013/0274572	10-17-2013	Al-Ali et al.	
	1067	2013/0279109	10-24-2013	Lindblad et al.	
	1068	2013/0296672	11-01-2013	O'Neil et al.	
	1069	2013/0296713	11-07-2013	Al-Ali et al.	
	1070	2013/0317327	11-01-2013	Al-Ali et al.	
	1071	2013/0317370	11-01-2013	Dalvi et al.	
	1072	2013/0317393	11-28-2013	Weiss et al.	
	1073	2013/0324804	12-05-2013	McKeown et al.	

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STATEMENT BT ATTEIOANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 38 OF 45	Attorney Docket No.	MASIMO.317C9

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Examiner Initials	Cite No.	Document Number <i>Number - Kind Code (if known)</i> Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	1074	2013/0324808	12-01-2013	Al-Ali et al.	
	1075	2013/0324817	12-01-2013	Diab	
	1076	2013/0331660	12-12-2013	Al-Ali et al.	
	1077	2013/0331670	12-01-2013	Kiani	
	1078	2013/0338461	12-01-2013	Lamego et al.	
	1079	2013/0340176	12-26-2013	Stevens et al.	
	1080	2014/0012100	01-01-2014	Al-Ali et al.	
	1081	2014/0022081	01-23-2014	Ribble et al.	
	1082	2014/0025306	01-01-2014	Weber et al.	
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	1096	2014/0094667	04-01-2014	Schurman et al.	
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	1102	2014/0127137	05-01-2014	Bellott et al.	

Examiner Signature	Date Considered
*Examiner: Initial if reference considered, whether or not citation is in conform	ance with MPEP 609. Draw line through citation if not

in conformance and not considered. Include copy of this form with next communication to applicant.

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 39 OF 45	Attorney Docket No.	MASIMO.317C9

	U.S. PATENT DOCUMENTS				
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	1103	2014/0128696	05-01-2014	Al-Ali	
	1104	2014/0128699	05-01-2014	Al-Ali et al.	
	1105	2014/0129702	05-01-2014	Lamego et al.	
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	1108	2014/0142401	05-01-2014	Al-Ali et al.	
	1109	2014/0142402	05-01-2014	Al-Ali et al.	
	1110	2014/0152673	06-05-2014	Lynn et al.	
	1111	2014/0155712	06-01-2014	Lamego et al.	
	1112	2014/0163344	06-12-2014	Al-Ali	
	1113	2014/0163402	06-12-2014	Lamego et al.	
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	1116	2014/0180038	06-26-2014	Kiani	
	1117	2014/0180154	06-26-2014	Sierra et al.	
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	1119	2014/0187973	07-03-2014	Brown et al.	
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	1121	2014/0194709	07-10-2014	Al-Ali et al.	
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	1123	2014/0194766	07-10-2014	Al-Ali et al.	
	1124	2014/0200422	07-17-2014	Weber et al.	
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	1126	2014/0213864	07-31-2014	Abdul-Hafiz et al.	
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Examiner Signature	Date Considered
*Examiner: Initial if reference considered, whether or not citation is in conform	ance with MPEP 609. Draw line through citation if not

in conformance and not considered. Include copy of this form with next communication to applicant.

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT BT ATTEIOANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 40 OF 45	Attorney Docket No.	MASIMO.317C9

	U.S. PATENT DOCUMENTS				
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	1132	2014/0275835	09-18-2014	Lamego et al.	
	1133	2014/0275871	09-18-2014	Lamego et al.	
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	1135	2014/0275881	09-18-2014	Lamego et al.	
	1136	2014/0276115	09-18-2014	Dalvi et al.	
	1137	2014/0288400	09-25-2014	Diab et al.	
	1138	2014/0296664	10-02-2014	Bruinsma et al.	
	1139	2014/0303520	10-09-2014	Telfort et al.	
	1140	2014/0309506	10-16-2014	Lamego et al.	
	1141	2014/0309559	10-16-2014	Telfort et al.	
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	1159	2015/0005600	01-01-2015	Blank et al.	
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Examiner Signature	Date Considered
*Examiner: Initial if reference considered, whether or not citation is in conform in conformance and not considered. Include copy of this form with next commu	5

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT BT ATTEIOANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 41 OF 45	Attorney Docket No.	MASIMO.317C9

	U.S. PATENT DOCUMENTS				
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	1161	2015/0012231	01-08-2015	Poeze et al.	
	1162	2015/0018650	01-15-2015	Al-Ali et al.	
	1163	2015/0025406	01-22-2015	Al-Ali	
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Examiner Signature	Date Considered	
*Examiner: Initial if reference considered, whether or not citation is in conform	ance with MPEP 609. Draw line through citation if not	

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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT BT ATTEIOANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 42 OF 45	Attorney Docket No.	MASIMO.317C9

	U.S. PATENT DOCUMENTS U.S. PATENT DOCUMENTS Document Number Publication Pages, Columns, Lines Where				
Examiner Initials	Cite No.	Number - Kind Code (if known) Example: 1,234,567 B1	Date MM-DD-YYYY	Name	Relevant Figures Appear
	1190	2015/0238722	08-27-2015	Al-Ali	
	1191	2015/0245773	09-03-2015	Lamego et al.	
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Examiner Signature	Date Considered
*Examiner: Initial if reference considered, whether or not situation is in conform	ance with MPEP 609. Draw line through citation if not

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT BT ATTEICANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 43 OF 45	Attorney Docket No.	MASIMO.317C9

	U.S. PATENT DOCUMENTS				
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	1219	2016/0113527	04-28-2016	Al-Ali	
	1220	2016/0143548	05-26-2016	Al-Ali	
	1221	2016/0166183	06-16-2016	Poeze et al.	
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Examiner Signature	Date Considered
*Examiner: Initial if reference considered, whether or not citation is in conform in conformance and not considered. Include copy of this form with next commu	5

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Multiple sheets used when necessary)

SHEET 44 OF 45

Application No.15/499619Filing DateApril 27, 2017First Named InventorAmmar Al-AliArt Unit2685ExaminerUnknownAttorney Docket No.MASIMO.317C9

			FOREIGN PAT	ENT DOCUMENTS		
Examiner Initials	Cite No.	Foreign Patent Document Country Code-Number-Kind Code Example: JP 1234567 A1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T1
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	1244	JP 2009-017959	01-29-2009	Fukuda Denshi Co., Ltd.		Х
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NON PATENT LITERATURE DOCUMENTS Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the Examiner Cite T^1 item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue Initials No. number(s), publisher, city and/or country where published. CAPUANO et al., "Remote Telemetry - New Twists for Old Technology", Nursing Management, July 1264 1995, Vol. 26, No. 7, pp. 26-32. ELMER-DEWITT, Philip, "Apple's iWatch: The killer apps may be in hospitals, not health clubs", Fortune.com, February 3, 2014, http://fortune.com/2014/02/03/apples-iwatch-the-killer-apps-may-be-1265 in-hospitals-not-health-clubs/, 4 pages.

Examiner Signature	Date Considered
*Examiner: Initial if reference considered, whether or not citation is in conform	ance with MPEP 609. Draw line through citation if not

 T^1 - Place a check mark in this area when an English language Translation is attached.

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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI ALLEIOANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 45 OF 45	Attorney Docket No.	MASIMO.317C9

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T1
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Examiner Signature	Date Considered
*Examiner: Initial if reference considered, whether or not citation is in conform	ance with MPEP 609. Draw line through citation if not
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Electronic Acknowledgement Receipt			
EFS ID:	29092250		
Application Number:	15499619		
International Application Number:			
Confirmation Number:	3723		
Title of Invention:	BODY WORN MOBILE MEDICAL PATIENT MONITOR		
First Named Inventor/Applicant Name:	Ammar Al-Ali		
Customer Number:	64735		
Filer:	Scott Cromar/Frances Tsai		
Filer Authorized By:	Scott Cromar		
Attorney Docket Number:	MASIMO.317C9		
Receipt Date:	02-MAY-2017		
Filing Date:			
Time Stamp:	17:22:44		
Application Type:	Utility under 35 USC 111(a)		

Payment information:

Submitted wi	th Payment	no			
File Listin	g:				
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Document Description		
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Transmittal Letter	1	1
Disclosure Statement (IDS) Form (SB08)	2	48
Total Files Size (in bytes):	391	502
<u>11</u> nd the application includes the necessary com Receipt (37 CFR 1.54) will be issued in due cou		
ablish the filing date of the application. Application under 35 U.S.C. 371 national stage of an international application i		
uirements a Form PCT/DO/EO/903 indicating a 5 U.S.C. 371 will be issued in addition to the Fil <u>1 with the USPTO as a Receiving Office</u>	ing Receipt, in due	course.
being filed and the international application i		
S	TAuticle 11 and MDED 1910) a Natification of t	T Article 11 and MPEP 1810), a Notification of the International A

First Inventor	:	Ammar Al-Ali			
App. No.	:	15/499619			
Filed	:	April 27, 2017			
For	:	BODY WORN MOBILE MEDICAL PATIENT MONITOR			
Examiner	:	Unknown			
Art Unit	:	2685			
Conf. No.	:	3723			

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

References and Listing

Pursuant to 37 CFR 1.56, an Information Disclosure Statement listing references is provided herewith. Listed references are of record in U.S. patent application No. 15/448989, filed March 3, 2017, which is the parent of this continuation application, and is relied upon for an earlier filing date under 35 USC 120. Copies of the references are not submitted pursuant to 37 CFR 1.98(d).

Pursuant to 37 CFR 1.97(g) and (h), Applicants make no representation that the information is considered to be material to patentability. Additionally, inclusion on this list is not an admission that any of the cited documents are prior art in this application. Further, Applicants make no representation regarding the completeness of this list, or that better art does not exist.

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT BT ATTEIOANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 1 OF 7	Attorney Docket No.	MASIMO.317C9

	U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	
	1	4,013,067	03-22-1977	Kresse et al.		
	2	4,773,422	09-27-1988	Isaacson et al.		
	3	5,090,410	02-25-1992	Saper et al.		
	4	5,203,342	04-20-1993	Sakai		
	5	5,392,777	02-28-1995	Swedlow et al.		
	6	5,417,222	05-23-1995	Dempsey et al.		
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	13	5,779,631	07-14-1998	Chance		
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	16	5,830,137	11-03-1998	Scharf		
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	18	5,879,292	03-09-1999	Sternberg et al.		
	19	5,957,854	09-28-1999	Besson et al.		
	20	6,011,985	01-04-2000	Athan et al.		
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	29	6,405,083	06-11-2002	Rockwell et al.		

Examiner Signature	Date Considered
*Examiner: Initial if reference considered, whether or not citation is in conform in conformance and not considered. Include copy of this form with next comm	8

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT BI ALLEGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 2 OF 7	Attorney Docket No.	MASIMO.317C9

Evominor	Cite	Document Number	Publication		Pages, Columns, Lines Where
Examiner Initials	No.	Number - Kind Code (if known) Example: 1,234,567 B1	Date MM-DD-YYYY	Name	Relevant Passages or Relevant Figures Appear
	30	6,440,067	08-27-2002	Deluca et al.	
	31	6,454,708	09-24-2002	Ferguson et al.	
	32	6,491,647	12-10-2002	Bridger et al.	
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	36	6,694,160	02-17-2004	Chin	
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	41	7,125,382	10-24-2006	Zhou et al.	
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	44	7,392,074	06-24-2008	Isaacson et al.	
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Examiner Signature	Date Considered
*Examinar: Initial if reference considered, whether or not citation is in conform	ance with MPEP 600 Draw line through citation if not

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT BT ATTEIOANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 3 OF 7	Attorney Docket No.	MASIMO.317C9

			U.S. PATENT	DOCUMENTS	
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	59	8,670,810	03-11-2014	Isaacson	
	60	8,695,206	04-15-2014	Isaacson et al.	
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Examiner Signature	Date Considered
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*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT BI AT LIGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 4 OF 7	Attorney Docket No.	MASIMO.317C9

			U.S. PATENT	DOCUMENTS	
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	88	2003/0033102	02-13-2003	Dietiker	
	89	2003/0149349	08-07-2003	Jensen	
	90	2003/0181798	09-25-2003	Al-Ali	
	91	2003/0181817	09-25-2003	Mori	
	92	2003/0214408	11-20-2003	Grajales et al.	
	93	2003/0229276	12-11-2003	Sarussi et al.	
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	95	2004/0097797	05-20-2004	Porges	
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	115	2006/0167351	07-27-2006	Isaacson et al.	
	116	2006/0276714	12-07-2006	Holt et al.	

Examiner Signature	Date Considered
*Examiner: Initial if reference considered, whether or not citation is in conform in conformance and not considered. Include copy of this form with next commu	

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT BI AT LIGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 5 OF 7	Attorney Docket No.	MASIMO.317C9

U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	117	2008/0113621	05-15-2008	Parthasarathy	
	118	2008/0208009	08-28-2008	Shklarski	
	119	2008/0208023	08-28-2008	Grubac et al.	
	120	2008/0221420	09-11-2008	Grubac et al.	
	121	2008/0222251	09-11-2008	Parthasarathy	
	122	2009/0043180	02-12-2009	Tschautscher et al.	
	123	2009/0259114	10-15-2009	Johnson et al.	
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	135	2012/0304784	12-06-2012	Isaacson et al.	
	136	2013/0310667	11-21-2013	Grubac et al.	
	137	2014/0066880	03-06-2014	Prince et al.	
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Examiner Signature	Date Considered
*Examiner: Initial if reference considered, whether or not citation is in conform in conformance and not considered. Include copy of this form with next comm	5

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT BT ATTEICANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 6 OF 7	Attorney Docket No.	MASIMO.317C9

	U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	
	146	2014/0343389	11-20-2014	Goldstein et al.		
	147	2014/0357970	12-04-2014	Larsen et al.		
	148	2014/0364705	12-11-2014	Parthasarathy et al.		
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Examiner Initials	Cite No.	Foreign Patent Document Country Code-Number-Kind Code Example: JP 1234567 A1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T ¹
	165	EP 0602459	06-22-1994	Siemens Medical Systems, Inc		
	166	EP 1408823	05-12-2010	Datascope Investment Corp		
	167	JP 2001-501847	02-13-2001	Nellcor Puritan Bennett Inc		X-Abs
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	169	JP 2004-024551	01-29-2004	Renesas Tech Corp		X-Abs

Examiner Signature	Date Considered
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	Application No.	15/499619
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STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT BI ALLEGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 7 OF 7	Attorney Docket No.	MASIMO.317C9

	FOREIGN PATENT DOCUMENTS						
Examiner Initials	Cite No.	Foreign Patent Document Country Code-Number-Kind Code Example: JP 1234567 A1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T ¹	
	170	RU 2199723	02-27-2003	Masimo Corporation		X-Abs	
	171	WO 1996/016591	06-06-1996	Aihonen et al.			
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	173	WO 1998/039749	09-11-1998	Kail			
	174	WO 1998/015224	04-16-1998	Nellcor Puritan Bennett Inc			
	175	WO 2000/062665	10-26-2000	Nexan Telemed Limited			
	176	WO 2000/069328	11-23-2000	Phiscience Gmbh, Entwicklung Von Sensoren			
	177	WO 2001/041634	06-14-2001	Masimo Corporation			
	178	WO 2003/065926	08-14-2003	Irvine Sensors Corporation			
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	180	WO 2005/092177	10-06-2005	Bodymedia, Inc.			

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T1
	181	CRILLY et al., "An Integrated Pulse Oximeter System for Telemedicine Applications", IEEE Instrumentation and Measurement Technology Conference, Ottawa, Canada, May 19-21, 1997, in 3 pages.	
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	184	European Search Report in EP Application No. 02 748 235.5, dated 4 October 2006.	
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Examiner Signature	Date Considered
*Examiner: Initial if reference considered, whether or not citation is in conform in conformance and not considered. Include copy of this form with next commu	-

Electronic Acknowledgement Receipt			
EFS ID:	29092391		
Application Number:	15499619		
International Application Number:			
Confirmation Number:	3723		
Title of Invention:	BODY WORN MOBILE MEDICAL PATIENT MONITOR		
First Named Inventor/Applicant Name:	Ammar Al-Ali		
Customer Number:	64735		
Filer:	Scott Cromar/Frances Tsai		
Filer Authorized By:	Scott Cromar		
Attorney Docket Number:	MASIMO.317C9		
Receipt Date:	02-MAY-2017		
Filing Date:			
Time Stamp:	17:24:34		
Application Type:	Utility under 35 USC 111(a)		

Payment information:

Submitted wi					
File Listin	g:				
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
			99454		
1		IDS-1121_MASIMO317C9.pdf	3a4a944d90047a7a060b3e04715af64d76a 1437b	yes	9

	Multipart Description/PDF files in .zip description					
	Document Description	Start	End			
	Transmittal Letter	1	2			
	Information Disclosure Statement (IDS) Form (SB08)	3	9			
Warnings:						
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characterize	Total Files Size (in bytes): redgement Receipt evidences receipt on the noted date by the USPT d by the applicant, and including page counts, where applicable. It se s described in MPEP 503.	O of the indicated o	documents,			
characterized Post Card, as <u>New Applica</u> If a new appl 1.53(b)-(d) aı	ledgement Receipt evidences receipt on the noted date by the USPT d by the applicant, and including page counts, where applicable. It se described in MPEP 503. <u>tions Under 35 U.S.C. 111</u> lication is being filed and the application includes the necessary com nd MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due cou	D of the indicated o erves as evidence o ponents for a filing	documents, of receipt similar t J date (see 37 CFR			
characterized Post Card, as <u>New Applica</u> If a new appl 1.53(b)-(d) an Acknowledg <u>National Stag</u> If a timely su	ledgement Receipt evidences receipt on the noted date by the USPT d by the applicant, and including page counts, where applicable. It se described in MPEP 503. <u>tions Under 35 U.S.C. 111</u> lication is being filed and the application includes the necessary com nd MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due cour ement Receipt will establish the filing date of the application. <u>ge of an International Application under 35 U.S.C. 371</u> bmission to enter the national stage of an international application i	D of the indicated of erves as evidence of ponents for a filing rse and the date sh s compliant with tl	documents, of receipt similar t date (see 37 CFR down on this he conditions of 3			
characterized Post Card, as <u>New Applica</u> If a new appl 1.53(b)-(d) an Acknowledg <u>National Stag</u> If a timely su U.S.C. 371 an national stag <u>New Interna</u>	ledgement Receipt evidences receipt on the noted date by the USPT d by the applicant, and including page counts, where applicable. It se described in MPEP 503. <u>tions Under 35 U.S.C. 111</u> lication is being filed and the application includes the necessary com nd MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due cour ement Receipt will establish the filing date of the application. <u>ge of an International Application under 35 U.S.C. 371</u>	D of the indicated of erves as evidence of ponents for a filing rse and the date sh s compliant with the acceptance of the a ing Receipt, in due	documents, of receipt similar to date (see 37 CFR down on this he conditions of 3 application as a course.			

First Inventor	• :	Ammar Al-Ali				
App. No.	:	15/499619				
Filed	:	April 27, 2017				
For	:	BODY WORN MOBILE MEDICAL PATIENT MONITOR				
Examiner	:	Unknown				
Art Unit	:	2685				
Conf. No.	:	3723				

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

References and Listing

Pursuant to 37 CFR 1.56, an Information Disclosure Statement listing references is provided herewith. Listed references are of record in U.S. patent application No. 15/448989, filed March 3, 2017, which is the parent of this continuation application, and is relied upon for an earlier filing date under 35 USC 120. Copies of the references are not submitted pursuant to 37 CFR 1.98(d).

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No Disclaimers

To the extent that anything in the Information Disclosure Statement or the listed references could be construed as a disclaimer of any subject matter supported by the present application, Applicant hereby rescinds and retracts such disclaimer. Application No.:15/499619Filing Date:April 27, 2017

Timing of Disclosure

This Information Disclosure Statement is being filed within three months of the filing date, and no fee is believed to be required.

The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment, to Account No. 11-1410.

Respectfully submitted, KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: May 2, 2017

By: /Scott Cromar/_____

Scott A. Cromar Registration No. 65,066 Attorney of Record Customer No. 64735 (949) 760-0404

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	United State	<u>s Patent</u>	and Tradema	UNITED STATES D	
APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS IND CLAIMS
15/499,619	04/27/2017	2685	1600	MASIMO.317C9	20 2
15/499,619 04/2//2017 2685 1600 MASIMO.317C9 20 2 64735 CONFIRMATION NO. 372 64735 FILING RECEIPT KNOBBE, MARTENS, OLSON & BEAR, LLP Image: Constraint of the second sec					EIPT

Date Mailed: 05/04/2017

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections

Inventor(s)

Ammar Al-Ali, San Juan Capistrano, CA;

Applicant(s)

MASIMO CORPORATION, Irvine, CA;

Power of Attorney: The patent practitioners associated with Customer Number 64735

Domestic Priority data as claimed by applicant

This application is a CON of 15/448,989 03/03/2017 which is a CON of 14/815,232 07/31/2015 ABN which is a CON of 14/217,788 03/18/2014 PAT 9113832 which is a CON of 14/037,137 09/25/2013 PAT 9113831 which is a CON of 12/955,826 11/29/2010 PAT 8548548 which is a CON of 11/417,006 05/03/2006 PAT 7844315 which is a CON of 11/048,330 02/01/2005 PAT 7844314 which is a CON of 10/377,933 02/28/2003 PAT 6850788 which claims benefit of 60/367,428 03/25/2002

Foreign Applications for which priority is claimed (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see <u>http://www.uspto.gov</u> for more information.) - None. *Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.*

Permission to Access Application via Priority Document Exchange: Yes

Permission to Access Search Results: Yes

Applicant may provide or rescind an authorization for access using Form PTO/SB/39 or Form PTO/SB/69 as appropriate.

If Required, Foreign Filing License Granted: 05/03/2017

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 15/499,619**

Projected Publication Date: 08/10/2017

Non-Publication Request: No

Early Publication Request: No

Title

BODY WORN MOBILE MEDICAL PATIENT MONITOR

Preliminary Class

340

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

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Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

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page 4 of 4

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875								Application or Docket Number 15/499,619		
APPLICATION AS FILED - PART I (Column 1) (Column 2) SMALL ENTITY								OTHER THAN OR SMALL ENTITY		
	FOR	NUMBE	R FILE	D NUMBE	REXTRA	RATE(\$)	FEE(\$)		RATE(\$)	FEE(\$)
	SIC FEE FR 1.16(a), (b), or (c))	N	/A	Ν	J/A	N/A			N/A	280
	ARCH FEE FR 1.16(k), (i), or (m))	N	/A	Ν	J/A	N/A		1	N/A	600
EXA	MINATION FEE FR 1.16(0), (p), or (q))	N	/A	Ν	J/A	N/A		1	N/A	720
TOT	AL CLAIMS FR 1.16(i))	20	minus	20= *				OR	× 80 =	0.00
IND	EPENDENT CLAI	^{MS} 2	minus	3 = *				1	× 420 =	0.00
API FEE	PLICATION SIZ	E sheets of p \$310 (\$15 50 sheets	aper, th 5 for sm or fractio	and drawings e le application si all entity) for ea on thereof. See ' CFR 1.16(s).	ze fee due is ch additional					0.00
MUI	TIPLE DEPEND	ENT CLAIM PRE	SENT (3	7 CFR 1.16(j))				1		0.00
*lft	he difference in c	olumn 1 is less th	an zero,	enter "0" in colur	mn 2.	TOTAL		1	TOTAL	1600
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		(Column 1)		(Column 2)	(Column 3)	SMALL	ENTITY	OR	OTHEF SMALL	
NT A		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE(\$)	ADDITIONAL FEE(\$)		RATE(\$)	ADDITIONAL FEE(\$)
ΜË	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
AMENDMENT	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
AM	Application Size F	ee (37 CFR 1.16(s))		L						
	FIRST PRESENT	ATION OF MULTIPL	E DEPEN	IDENT CLAIM (37 C	CFR 1.16(j))			OR		
	1					TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	
		(Column 1)		(Column 2)	(Column 3)			-		
LT B		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE(\$)	ADDITIONAL FEE(\$)		RATE(\$)	ADDITIONAL FEE(\$)
μ	Total (37 CFR 1.16(i))	*	Minus	**	=	X =		OR	x =	
AMENDMENT	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
AM		ee (37 CFR 1.16(s))						1		
	FIRST PRESENT	ATION OF MULTIPL	E DEPEN	IDENT CLAIM (37 C	CFR 1.16(j))			OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	
	 If the entry in cc If the "Highest N If the "Highest Num The "Highest Num 	Number Previous umber Previously I	y Paid F Paid For"	or" IN THIS SPA IN THIS SPACE is	CE is less than s less than 3, en	20, enter "20".	in column 1.			

	ed States Paten	T AND TRADEMARK OFFICE	UNITED STATES DEPAR United States Patent and Address: COMMISSIONER F P.O. Box 1450 Alexandria, Virginia 22. www.uspto.gov	FOR PATENTS		
APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
15/499,619	15/499,619 04/27/2017 Ammar Al-Ali MASIMO.317C9 3723					
	7590 05/17/201 RTENS OLSON & B		EXAMINER			
MASIMO COR	KNOBBE, MARTENS, OLSON & BEAR, LLP MASIMO CORPORATION (MASIMO) 2040 MAIN STREET					
FOURTEENTH			ART UNIT	PAPER NUMBER		
IRVINE, CA 92	2614	2685				
			NOTIFICATION DATE	DELIVERY MODE		
			05/17/2017	ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

jayna.cartee@knobbe.com efiling@knobbe.com UNITED STATES PATENT AND TRADEMARK OFFICE



Commissioner for Patents United States Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450 www.uspto.gov

Doc Code: TRACK1.GRANT

	Prio	n Granting Request for ritized Examination ack I or After RCE)	Application No.: 15/499,619			
1.	THE REQUEST FILED <u>04/27/17</u> IS GRANTED .					
	The above-identified application has met the requirements for prioritized examination A. X for an original nonprovisional application (Track I). B. I for an application undergoing continued examination (RCE).					
2.			ergo prioritized examination. The application will be course of prosecution until one of the following occurs:			
	Α.	filing a petition for extension o	f time to extend the time period for filing a reply;			
	В.	filing an amendment to amend	the application to contain more than four independent			
		<u>claims, more than thirty total c</u>	claims , or a multiple dependent claim;			
	C.	filing a request for continued e	xamination;			
	D.	filing a notice of appeal;				
	E.	filing a request for suspension of	faction;			
	F.	mailing of a notice of allowance;				
	G.	mailing of a final Office action;				
	Н.	completion of examination as de	fined in 37 CFR 41.102; or			
	Ι.	abandonment of the application.				
	Telephone inquiries with regard to this decision should be directed to Terri Johnson at 571-272-2991. In his/her absence, calls may be directed to Brian Brown at 571-272-5338.					
	/Terri Jo	hnson/	Paralegal Specialist			
	[Signatur	[e]	(Title)			

U.S. Patent and Trademark Office PTO-2298 (Rev. 02-2012)

Office of Petitions: Dec	cision Count Sheet	Mailing Month 5
Application No.	15499619	* 1 5 4 9 9 6 1 9 *
For US serial numbers: enter nur For PCT: enter "51+single digit o	-	e. Ex: 10123456 x. for PCT/US05/12345, enter 51512345
Deciding Official:	Johnson, Terri	
Count (1) - Palm Credit Decision: GRANT	15499619 FINANCE WORK NEEDED	
Decision Type: 643 - Track Or		
Notes:		
Count (2)		
Decision: n/a	FINANCE WORK NEEDED	
Decision Type: NONE		
Notes:		
Count (3)		
Decision: n/a	Select Check Box for YE	
Decision Type: NONE		-
Notes:		
Initials of Approving C	Official (if required)	If more than 3 decisions, attach 2nd count sheet & mark this box
Printed on: 5/14/2017	C	Office of Petitions Internal Document - Ver. 5.0

Office of Petitions: Routing Sheet



Application No. 15499619

This application is being forwarded to your office for further processing. A decision has been rendered on a petition filed in this application, as indicated below. For details of this decision, please see the document PET.OP.DEC filed on the same date as this document.



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Inventor	:	Ammar Al-Ali
App. No.	:	15/499619
Filed	:	April 27, 2017
For	:	BODY WORN MOBILE MEDICAL PATIENT MONITOR
Examiner	:	Unknown
Art Unit	:	2685
Conf. No.	:	3723

PRELIMINARY AMENDMENT

Mail Stop Amendment

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

Prior to examination on the merits, please consider the following:

Amendments to the Claims are reflected in the listing of claims which begins on page 2

of this paper.

Remarks begin on page 9 of this paper.

AMENDMENTS TO THE CLAIMS

1. (Canceled)

2. (**Previously Presented**) A body worn mobile medical monitoring device configured to minimize cable wiring from a sensor by placement of one or more sensor communication ports, the mobile medical monitoring device comprising:

a housing configured to be secured on a lower arm of a patient being monitored via a strap extending around the lower arm of the patient;

a display positioned on a face of the housing, opposite the strap, so as to be visible to a user;

a first sensor communication port positioned on a side of the housing and configured to face a hand of the lower arm of the patient when the mobile medical monitoring device is mounted to the lower arm of the patient, wherein:

the first sensor communication port is configured to provide wired communication with a pulse oximetry sensor attached to a digit of the hand of the patient, and

the first sensor communication port is positioned on the side of the housing such that a path from the first sensor communication port on the side of the housing to the digit of the patient is shorter than any other path from any other side of the housing to the digit of the patient.

3. (**Previously Presented**) The mobile medical monitoring device of Claim 2, wherein the wired communication with the pulse oximetry sensor is provided via a tail extending from the pulse oximetry sensor.

4. (**Previously Presented**) The mobile medical monitoring device of Claim 3, wherein the tail comprises a cable that is configured to be removably attachable to the first sensor communication port.

5. (**Previously Presented**) The mobile medical monitoring device of Claim 4, wherein a length of the cable corresponds to the path from the sensor communication port on the side of the housing to the digit of the patient.

-2-
6. (**Previously Presented**) The mobile medical monitoring device of Claim 4, wherein the cable is appropriately sized based on the path from the sensor communication port on the side of the housing to the digit of the patient.

7. (**Previously Presented**) The mobile medical monitoring device of Claim 4, wherein the path from the sensor communication port on the side of the housing to the digit of the patient runs at least partly along a backside of the hand of the patient.

8. (**Previously Presented**) The mobile medical monitoring device of Claim 2, wherein the face of the housing comprises a single user interface.

9. (**Previously Presented**) The mobile medical monitoring device of Claim 8, wherein the single user interface comprises the display.

10. (**Previously Presented**) The mobile medical monitoring device of Claim 9, wherein:

the housing comprises a back side that is opposite the face of the housing,

the strap is mountable to the back side of the housing, and

the face of the housing is raised from the strap and the lower arm of the patient to enable positioning of the first sensor communication port on the side of the housing between the lower arm of the patient and the face of the housing.

11. (**Previously Presented**) The mobile medical monitoring device of Claim 10, wherein:

the front side of the housing comprises a bezel and the display, and

a top of the first sensor communication port is located below the face of the housing.

12. (**Previously Presented**) The mobile medical monitoring device of Claim 11, wherein the display is positioned centrally on the face of the housing.

13. (**Currently Amended**) The mobile medical monitoring device of Claim 12, wherein the display positioned on the face of the housing is sized such that the display covers most of a length of a shortest dimension of the face of the housing, and wherein the mobile medical monitoring device further comprises:

-3-

second and third sensor communication ports positioned on the housing and configured to provide wired communication with one or more additional physiological sensors.

14. (Canceled)

15. (**Previously Presented**) A body worn, battery-powered medical monitoring device configured to provide on-patient and remote monitoring of patient physiological parameters, the medical monitoring device comprising:

a battery configured to provide power to the medical monitoring device such that the medical monitoring device may operate without a wired power connection;

a case configured to house the battery;

a strap configured to attach the case to an arm of a patient and be mountable to the case;

a first communications port positioned on a side of the case configured to be nearest to a hand of the arm of the patient when the case is mounted to the arm of the patient, the first communications port configured to removably couple with a cable of a finger- or thumb-type pulse oximetry sensor and positioned on the case to provide a path from the first communications port to a digit of the hand of the patient that avoids tangling of the cable;

a second communications port configured to provide communications with a second physiological sensor arrangement;

a third communications port configured to provide communications with a third physiological sensor arrangement;

a display configured to provide real time measurements of patient physiological parameters based at least in part on data obtained from at least the pulse oximetry sensor via the first communications port; and

a transmitter configured to wirelessly transmit information indicative of real time measurements of patient physiological parameters based at least in part on data obtained from the pulse oximetry sensor via the first communications port.

16. (**Previously Presented**) The medical monitoring device of Claim 15, wherein the path from the first communications port to a digit of the hand is shorter than any path from any communications port located on any other side of the case to the digit of the hand.

17. (**Previously Presented**) The medical monitoring device of Claim 15 further comprising:

one or more hardware processors configured to:

process the data obtained from the pulse oximetry sensor; and

determine, based at least in part on the data, the real time measurements of patient physiological parameters.

18. (Previously Presented) The medical monitoring device of Claim 17, wherein: the one or more hardware processors are further configured to:

receive additional data from at least the second physiological sensor arrangement and the third physiological sensor arrangement;

determine, based at least in part on the additional data, real time measurements of additional patient physiological parameters; and

cause to be displayed, on the display, the real time measurements of additional patient physiological parameters; and

the transmitter is further configured to:

wirelessly transmit information indicative of real time measurements of additional patient physiological parameters based at least in part on the additional data.

19. (**Previously Presented**) The medical monitoring device of Claim 18, wherein the display is positioned on a front, user-facing side of the case to enable a user to view the real time measurements of patient physiological parameters and the real time measurements of additional patient physiological parameters.

20. (**Previously Presented**) The medical monitoring device of Claim 19, wherein the second physiological sensor arrangement comprises an EKG sensor arrangement and the third physiological sensor arrangement comprises a blood pressure sensor arrangement.

21. (**Previously Presented**) The medical monitoring device of Claim 20, wherein:

the first, second, and third communication ports are communicatively coupled to respective first, second, and third sensor interfaces; and

the first, second, and third sensor interfaces are uniquely configured to receive signals from the respective pulse oximetry sensor, EKG sensor arrangement, and blood pressure sensor arrangement.

22. (New) An body worn portable patient monitoring device configured to provide on-patient and remote monitoring of patient physiological parameters, the portable patient monitoring device comprising:

a pulse oximetry sensor configured to be wrapped around a digit of a patient, the pulse oximetry sensor including at least:

a light emitter configured to emit light into a tissue site of the digit of the patient;

a light detector configured output a first signal responsive to at least a portion of the emitted light after attenuation by tissue of the tissue site; and

a cable extending from the pulse oximetry sensor and configured to electrically convey the first signal;

a blood pressure sensor configured to output a second signal responsive to at least a blood pressure parameter of the patient;

an additional sensor arrangement configured to output a third signal responsive to at least one additional physiological parameter of the patient other than blood pressure or oxygen saturation, the at least one additional physiological parameter including at least one of: temperature or respiration rate;

a housing configured to be secured to a lower arm of the patient, the housing having a size and shape configured to be secured to the lower arm of the patient;

a strap mountable to the back side of the housing, the strap configured to secure the housing to the lower arm of the patient;

a display positioned on a front side of the housing that is opposite a back side of the housing, the display configured to show a status of the portable patient monitoring device and one or more parameter measurements so as to be viewable by a user, wherein

-6-

the display is positioned centrally on the front side of the display and is sized such that the display spans most of a length of a shortest dimension of the front side of the housing, and wherein the front side of the housing comprises a single user interface and a bezel;

one or more user input mechanisms configured to control an operational mode of the portable patient monitoring device in response to inputs from a user;

a first sensor port positioned on a first side of the housing, wherein:

the first side of the housing is configured to face toward a hand having the digit of the patient under measurement when the housing is secured to the lower arm of the patient,

the first sensor port is configured to removably physically couple with the pulse oximetry sensor via the cable and to electrically receive the first signal from the pulse oximetry sensor,

the cable is configured to run from the first sensor port, at least part way along a path down the arm of the patient, and to the digit of the patient to which the pulse oximetry sensor is configured to be wrapped around,

the front side of the housing is raised from the strap and the lower arm of the patient to enable positioning of the first sensor port on the first side of the housing between the lower arm of the patient and the front side of the housing, and

a top of the first sensor port is located below the front of the housing;

a second sensor port positioned on the housing and configured to provide electrical communication with the blood pressure sensor arrangement and to electrically receive second signal from the blood pressure sensor arrangement;

a third sensor port positioned on the housing and configured to provide electrical communication with the additional sensor arrangement and to electrically receive the third signal from the additional sensor arrangement;

a rechargeable battery positioned within the housing and configured to power the portable patient monitoring device such that the portable patient monitoring device is portable and wearable by the patient;

-7-

one or more signal processing arrangements positioned within the housing and configured to:

receive the first signal from the pulse oximetry sensor via one or more sensor interfaces;

process the first signal from the pulse oximetry sensor to determine measurements of oxygen saturation and pulse rate;

receive the second signal from the blood pressure sensor arrangement via the one or more sensor interfaces, the second signal responsive to at least a blood pressure parameter of the patient;

receive the third signal from the additional sensor arrangement via the one or more sensor interfaces, the third signal responsive to the at least one additional physiological parameter of the patient including at least one of: temperature or respiration rate; and

cause the measurements of oxygen saturation, pulse rate, blood pressure, and the at least one additional physiological parameter to all be displayed on the display of the portable patient monitoring device; and

a transmitter positioned within the housing and configured to:

wirelessly transmit a transmit signal including the information indicating the measurements of oxygen saturation, pulse rate, blood pressure, and the at least one additional physiological parameter to a separate computing device configured to display, on a remote display, the measurements of oxygen saturation, pulse rate, blood pressure, and the at least one additional physiological parameter.

-8-

REMARKS

By way of summary, Claims 2-21 were pending in this application. In the present amendment, the Applicant has amended Claim 13, and canceled Claim 14, without prejudice or disclaimer of subject matter. Applicant has further added new Claim 22. Applicant reserves the right to pursue previously pending claims in this or another application. Accordingly, Claims 2-13 and 15-22 are pending for consideration.

No Disclaimers or Disavowals

Although the present communication may include alterations to the application or claims, or characterizations of claim scope or referenced art, Applicant is not conceding in this application that previously pending claims are not patentable over the cited references. Rather, any alterations or characterizations are being made to facilitate expeditious prosecution of this application. Applicant reserves the right to pursue at a later date any previously pending or other broader or narrower claims that capture any subject matter supported by the present disclosure, including subject matter found to be specifically disclaimed herein or by any prior prosecution. Accordingly, reviewers of this or any parent, child, or related prosecution history shall not reasonably infer that Applicant has made any disclaimers or disavowals of any subject matter supported by the present application.

Co-Pending Applications of Assignee

Applicant wishes to draw the Examiner's attention to the following co-pending applications of the present application's assignee.

Docket No.	Serial No.	Title	Filed
MASIMO.317C7	15/448989	ARM MOUNTABLE PORTABLE	3/3/2017
MASIMO.317C8	15/494967	PATIENT MONITORARMMOUNTABLEPORTABLE	4/24/2017
	15/494907	PATIENT MONITOR WEARABLE PORTABLE PATIENT	
MASIMO.317C10	15/499716	MONITOR	4/27/2017
MASIMO.584C1	14/464560	MODULAR PATIENT MONITOR	08/20/2014
MASIMO.785C2	14/733781	MODULAR PATIENT MONITOR	06/08/2015
MASIMO.899A	13/762270	WIRELESS PATIENT MONITORING DEVICE	02/07/2013

Application No.: 15/499619 Filing Date: A

April	27,	2017	
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Docket No.	Serial No.	Title	Filed
MASIMO.899P1	14/511974	PATIENT POSITION DETECTION SYSTEM	10/10/2014
MASIMO.899D1	14/834169	WIRELESS PATIENT MONITORING DEVICE	08/24/2015
MASIMO.899DA	29/537221	WIRELESS PATIENT MONITORING DEVICE	08/24/2015
MASIMO.930D1	15/214156	MEDICAL MONITORING HUB	07/19/2016
MASIMO.930D2	15/214276	MEDICAL MONITORING HUB	07/19/2016
MASIMO.930D3	15/214186	MEDICAL MONITORING HUB	07/19/2016
MASIMO.930P1	14/512237	SYSTEM FOR DISPLAYING MEDICAL MONITORING DATA	10/10/2014
MASIMO.963A	14/511972	ALARM NOTIFICATION SYSTEM	10/10/2014
MASIMO.1000A1	15/253567	WIRELESS PATIENT MONITORING SYSTEMS AND METHODS	08/31/2016
MASIMO.1000A2	15/253482	SYSTEMS AND METHODS TO MONITOR REPOSITIONING OF A PATIENT	08/31/2016
MASIMO.1000A3	15/253355	SYSTEMS AND METHODS FOR PATIENT FALL DETECTION	08/31/2016
MASIMO.1000A4	15/253536	PATIENT-WORN WIRELESS PHYSIOLOGICAL SENSOR	08/31/2016

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: May 22, 2017

By: /Scott Cromar/_____

Scott A. Cromar Registration No. 65,066 Attorney Customer No. 64735 (949) 760-0404

Electronic Acknowledgement Receipt				
EFS ID:	29271811			
Application Number:	15499619			
International Application Number:				
Confirmation Number:	3723			
Title of Invention:	BODY WORN MOBILE MEDICAL PATIENT MONITOR			
First Named Inventor/Applicant Name:	Ammar Al-Ali			
Customer Number:	64735			
Filer:	Scott Cromar/Gustavo Lopez			
Filer Authorized By:	Scott Cromar			
Attorney Docket Number:	MASIMO.317C9			
Receipt Date:	22-MAY-2017			
Filing Date:	27-APR-2017			
Time Stamp:	14:00:04			
Application Type:	Utility under 35 USC 111(a)			

Payment information:

Submitted with Payment no					
File Listin	g:				
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
			54014		
1		PreAmd_MASIMO317C9.pdf	1d4da141a999fc5a67e5b2c2e3b8ea921bb 9fde5	yes	10

	Multipart Description/PDF files in .zip description				
	Document Description	Start	End		
	Preliminary Amendment	1	1		
	Claims	2	8		
	Applicant Arguments/Remarks Made in an Amendment	9	10		
Warnings:					
Information:					
	Total Files Size (in bytes):	54	014		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Unit	ed States Paten	T AND TRADEMARK OFFICE	UNITED STATES DEPAR United States Patent and Address: COMMISSIONER F P.O. Box 1450 Alexandria, Virginia 22: www.uspto.gov	OR PATENTS
APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/499,619	04/27/2017	Ammar Al-Ali	MASIMO.317C9	3723
	7590 07/03/201 RTENS, OLSON & B		EXAM	INER
	RPORATION (MASIM		WINAKUR, E	ERIC FRANK
FOURTEENTH			ART UNIT	PAPER NUMBER
IRVINE, CA 92	2014		3735	
			NOTIFICATION DATE	DELIVERY MODE
			07/03/2017	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

jayna.cartee@knobbe.com efiling@knobbe.com

Notice of References Cited	Application/Control No. 15/499,619	Applicant(s)/Pa Reexamination AL-ALI, AMMAI		
	Examiner	Art Unit		
	Eric Winakur	3735	Page 1 of 1	
U.S. PATENT DOCUMENTS				

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-6,241,684 B1	06-2001	Amano; Kazuhiko	A61B5/02438	600/503
*	в	US-6,516,289 B2	02-2003	David; Daniel	A61B5/04085	600/300
	с	US-				
	D	US-				
	Е	US-				
	F	US-				
	G	US-				
	н	US-				
	I	US-				
	J	US-				
	к	US-				
	L	US-				
	м	US-				

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	Ν					
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NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
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*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).) Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

	Application No.	Applicant(s)	
First Action Interview Pilot Program	15/499,619	AL-ALI, AMM	AR
Pre-Interview Communication	Examiner	Art Unit AIA (First Inventor to Fil	
	Eric Winakur	3735	Status No

-The MAILING OR NOTIFICATION DATE of this communication appears on the cover sheet with the correspondence address -THE SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE **ONE MONTH OR THIRTY (30) DAYS**, WHICHEVER IS LONGER, FROM THE MAILING OR NOTIFICATION DATE OF THIS COMMUNICATION.

This time period for reply is extendable under 37 CFR 1.136(a) for only ONE additional MONTH.

This communication constitutes notice under 37 CFR 1.136(a)(1)(i).

Applicant must, within the time period for reply, file: (1) A letter requesting <u>not</u> to have a first action interview; (2) A reply under 37 CFR 1.111 waiving the first action interview and First Action Interview Office Action; or (3) An Applicant Initiated Interview Request Form (PTOL-413A) electronically via EFS-Web, accompanied by a proposed amendment or arguments, and schedule the interview within 2 months from the filing of the request. A failure to respond to this communication will be treated as a request not to have an interview. If applicant waives the First Action Interview Office Action, the instant Pre-Interview Communication is deemed the first Office Action on the Merits. The next subsequent Office action may be made final if appropriate. See MPEP 706.07(a).

Status

1)🖂	Responsive to	communication(s)	filed on	5/22/17
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A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on ______.

Disposition of Claims

2) Claim(s) <u>2-13 and 15-22</u> is/are pending in the application.

2a) Of the above claim(s) _____ is/are withdrawn from consideration.

- 3) Claim(s) is/are allowed.
- 4) Claim(s) 2-13 and 15-22 is/are rejected.
- 5) Claim(s) is/are objected to.
- 6) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 7) The specification is objected to by the Examiner.
- 8) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

9) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

- a) All b) Some * c) None of:
 - 1. Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No.
 - 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

Contact Information

Examiner's Telephone Number: (571)272-4736 Examiner's Typical Work Schedule: M-F; 9-5:30

Supervisor's Name: Patricia Mallari	Supervisor's Telephone Number:
 Attachment(s) 1) ⊠Notice of References Cited (PTO-892) 2) ⊠Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>5/2/17 (2 papers)</u>. 	3) Interview Summary (PTO-413) Paper No(s)/Mail Date 4) Other:
U.S.Patent and Trademark Office	

PTOL-413FP (Rev. 08-13)

First Action Interview Pilot Program - Pre-Interview Communication

Part of Paper No./Mail Date 20170621



	Application No.	Applicant(s)	
First Action Interview Pilot Program	15/499,619	AL-ALI, AMN	IAR
Pre-Interview Communication	Examiner	Art Unit	AIA (First Inventor to File)
	Eric Winakur	3735	Status No

	Notification of Rejection(s) and/or Objection(s)							
#	Claim(s)	Reference(s) (if applicable)	Rejection Statutory Basis	Brief Explanation of Rejection				
1	7, 10-12, 16		101	The claims improperly define the structure in positive relationship with a portion/body part of a living being.				
2	3-7		112, 2	The claims relate to details of the pulse oximetry sensor; however, the sensor is not a positively recited element of the invention, and thus the claims do not further limit any positively claimed structures.				
3	2-9	A	102(e)	Amano (Ref A) teaches a wearable measurement arrangement (Figures 5, 29 - 39 and the descriptions thereof), including a wrist worn processing element and sensor "configured to be" positioned on a finger or thumb				
4	10-12, 15- 22	A, 75, B, 314	103	A does not teach: 1) measurement and processing of oximetry data (as optical measurement of pulse data is taught), 2) measurement of additional physiological data with ECG, BP sensors, or				

	Expanded Discussion/Commentary						
3		of the subject. The sensor provides data to the processing element through a connector (70).					
4		3) wireless RF-based telemetry of the physiological information.					
4	4 With regard to item 1), Applicant cited reference 75 (Mathews - 5,431,170) at Figure 2 and Summary of the Invention, teaches that measurement of a second wavelength permits calculation of oxygen saturation in addition to heart rate data from a sensor positioned at the same location. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Amano to use the sensor of Mathews to obtain data for calculation of an additional parameter of interest.						
4		With regard to item 2), reference B (David) teaches an alternate wearable arrangement (Figures 2, 6 and the descriptions thereof) for measuring oxygen saturation and additional physiological parameters of interest, including ECG and blood pressure. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Amano and Mathews, to measure and process additional parameters of interest, consistent					
4		with David. Further, one of skill in the art would recognize that additional connectors of Amano could be included in the wrist wearable member to permit connection between the processor and the additional sensors.					
DAT	DATE:						
		I Trademark Office P (Rev. 08-13) First Action Interview Pilot Program - Pre-Interview Communication Part of Paper No./Mail Date 20170621					

	Application No.	Applicant(s)	
First Action Interview Pilot Program Pre-Interview Communication	15/499,619	AL-ALI, AMMAF	٦
	Examiner	Art Unit	AIA (First Inventor to
	Eric Winakur	3735	File) Status No

							NO	
			Notifica	tion of Rejection(s) and/or Objectio	on(s)			
#	Claim(s)	Reference(s) (if applicable)	Rejection Statutory Basis	Brief Explanation of Rejection				
5	2-9	Copending app 15/499,619	Prov Obv DP	Co-pending application claims 2, 6 - 9, 11, and 12 are directed to a parallel arrangement to that of claims 2 - 9 of the instant application.				
6	2-6, 15-22	Copending app 15/494,967	Prov Obv DP	Co-pending application claims 2, 5 - 8, and 22 are directed to a parallel arrangement to that of claims 2 - 6 and 15 - 22 of the instant application.				

	Expanded Discussion/Commentary						
4		With regard to item 3), Amano (Figure 29) indicates that data can be transmitted between the wrist worn element and a remote monitor, but does not teach the use of RF type telemetry. Applicant cited reference 314 (Khair - 6,897,788), Figures 3 - 5 and the descriptions thereof, teaches a manner to transmit physiological data to a remote monitor, including multiplexing and modulation of the data as part of the transmission. It would have been within the skill level of the art to further modify the combination to use the telemetry techniques of					
4		Khair to wirelessly send the physiological data to a remote location.					
4		Additionally, without a showing of unexpected results or criticality, it would have been within the skill level of the art to implement the combination using known elements such as rechargeable batteries.					
5		The claims of the instant application are broader than those of the copending application. Thus, any invention meeting the limitations of the claims of the copending application would necessarily meet those of the instant application as well.					
6	The claims of the instant application are broader than those of the copending application. Thus, any invention meeting the limitations of the claims of the copending application would necessarily meet those of the instant application as well.						
DA	DATE:						
U.S.	Patent ar	nd Trademark Office First Action Interview Pilot Program - Pre-Interview Communication Part of Paper No./Mail Date 20170621					

U.S. Patent and Trademark Office First Action Interview Pilot Program - Pre-Interview Communication Part of Paper No./Mail Date 2017(PTOL-413FP (Rev. 08-13)

	Application No.	Applicant(s)	
First Action Interview Pilot Program Pre-Interview Communication	15/499,619	AL-ALI, AMMAI	3
	Examiner	Art Unit	AIA (First Inventor to
	Eric Winakur	3735	File) Status

								NO		
			Notifica	tion of Rejection(s) and/or Ob	jection(s)					
#	Claim(s)	Reference(s) (if applicable)								
7	2-6	Copending app 15/499,716	Prov Obv DP	Co-pending application 15/499,716 claim 2 is directed to a parallel arrangement to that of claims 2 -6 of the instant application.			of			

	Expanded Discussion/Commentary						
7		The claims of the instant a limitations of the claims of t	application are generally broader than those of the copending he copending application would necessarily meet those of th	g application, and therefore any invention meeting the ne instant application as well.			
	DATE: /Eric Winakur/ 23 June, 2017 Primary Examiner, Art Unit 3735						
		nd Trademark Office First Action FP (Rev. 08-13)	n Interview Pilot Program - Pre-Interview Communicatior	n Part of Paper No./Mail Date 20170621			

Notice of References Cited	Application/Control No. 15/499,619	Reexamination				
Notice of References Cited	Examiner	Art Unit				
	Eric Winakur	3735	Page 1 of 1			

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-6,241,684 B1	06-2001	Amano; Kazuhiko	A61B5/02438	600/503
*	в	US-6,516,289 B2	02-2003	David; Daniel	A61B5/04085	600/300
	с	US-				
	D	US-				
	Е	US-				
	F	US-				
	G	US-				
	н	US-				
	I	US-				
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	к	US-				
	L	US-				
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FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	Ν					
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NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
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*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).) Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI ALLEIOANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 1 OF 45	Attorney Docket No.	MASIMO.317C9

Examiner Initials	Cite No.	Document Number Number - Kind Code (if known)	Publication Date	Name	Pages, Columns, Lines Where Relevant Passages or
	1	Example: 1,234,567 B1 RE38,476	MM-DD-YYYY 03-30-2004	Diab et al.	Relevant Figures Appear
	2	RE38,492	04-06-2004	Diab et al.	
	3	RE39,672	06-05-2007	Shehada et al.	
	4	RE41,236	04-20-2010	Seely	
	5	RE41,317	05-04-2010	Parker	
	6	RE41,912	11-02-2010	Parker	
	7	RE42,753	09-27-2011	Kiani-Azarbayjany et al.	
	8	RE43,169	02-07-2012	Parker	
	9	RE43,860	12-11-2012	Parker	
	9 10	RE44,823	04-01-2012	Parker	
	11	RE44,875	04-01-2014	Kiani et al.	
	12	-			
		D353,195	12-06-1994	Savage et al.	
	13	D353,196	12-06-1994	Savage et al.	
	14	D357,982	05-02-1995	Dahl et al.	
	15	D359,546	06-20-1995	Savage et al.	
	16	D361,840	08-29-1995	Savage et al.	
	17	D362,063	09-05-1995	Savage et al.	
	18	D363,120	10-10-1995	Savage et al.	
	19	D393,830	04-28-1998	Tobler et al.	
	20	D437,058	01-30-2001	Gozani	
	21	D483,872	12-16-2003	Cruz et al.	
	22	D554,263	10-30-2007	Al-Ali	
	23	D566,282	04-08-2008	Al-Ali et al.	
	24	D587,657	03-03-2009	Al-Ali et al.	
	25	D606,659	12-22-2009	Kiani et al.	
	26	D609,193	02-02-2010	Al-Ali et al.	
	27	D614,305	04-20-2010	Al-Ali et al.	
	28	D621,515	08-10-2010	Chua et al.	
	29	D621,516	08-10-2010	Kiani et al.	

Examiner	⁻ Signature		Date Considered				

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI ALL EIOANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 2 OF 45	Attorney Docket No.	MASIMO.317C9

	U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	
	30	D659,836	05-15-2012	Bensch et al.		
	31	D679,018	03-26-2013	Fullerton et al.		
	32	D692,145	10-22-2013	Al-Ali et al.		
	33	D709,846	07-29-2014	Oswaks		
	34	D745,167	12-08-2015	Canas et al.		
	35	D755,392	05-03-2016	Hwang et al.		
	36	3,646,606	02-29-1972	Buxton et al.		
	37	3,690,313	09-12-1972	Weppner et al.		
	38	3,810,102	05-07-1974	Parks III, et al.		
	39	3,815,583	06-11-1974	Scheidt		
	40	3,972,320	08-03-1976	Kalman		
	41	3,978,849	09-07-1976	Geneen		
	42	4,108,166	08-22-1978	Schmid		
	43	4,231,354	11-04-1980	Kurtz et al.		
	44	4,589,415	05-20-1986	Haaga		
	45	4,662,378	05-05-1987	Thomis		
	46	4,838,275	06-13-1989	Lee		
	47	4,852,570	08-01-1989	Levine		
	48	4,960,128	10-02-1990	Gordon et al.		
	49	4,964,408	10-23-1990	Hink et al.		
	50	5,041,187	08-20-1991	Hink et al.		
	51	5,069,213	12-03-1991	Polczynski		
	52	5,092,340	03-03-1992	Yamaguchi et al.		
	53	5,140,519	08-18-1992	Friesdorf et al.		
	54	5,159,932	11-03-1992	Zanetti et al.		
	55	5,161,539	11-10-1992	Evans et al.		
	56	5,163,438	11-17-1992	Gordon et al.		
	57	5,262,944	11-16-1993	Weisner et al.		
	58	5,277,189	01-11-1994	Jacobs		

Examiner Signature	Date Considered

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STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI AFFEIGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 3 OF 45	Attorney Docket No.	MASIMO.317C9

Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	59	5,278,627	01-11-1994	Aoyagi et al.	
	60	5,282,474	02-01-1994	Valdes Sosa et al.	
	61	5,296,688	03-22-1994	Hamilton et al.	
	62	5,318,037	06-07-1994	Evans et al.	
	63	5,319,355	06-07-1994	Russek	
	64	5,331,549	07-19-1994	Crawford, Jr.	
	65	5,333,106	07-26-1994	Lanpher et al.	
	66	5,337,744	08-16-1994	Branigan	
	67	5,341,805	08-30-1994	Stavridi et al.	
	68	5,348,008	09-20-1994	Bornn et al.	
	69	5,358,519	10-25-1994	Grandjean	
	70	5,375,599	12-27-1994	Shimizu	
	71	5,375,604	12-27-1994	Kelly et al.	
	72	5,377,676	01-03-1995	Vari et al.	
	73	5,400,794	03-28-1995	Gorman	
	74	5,416,695	05-16-1995	Stutman et al.	
	75	5,431,170	07-11-1995	Mathews	
	76	5,434,611	07-18-1995	Tamura	
	77	5,452,717	09-26-1995	Branigan et al.	
	78	5,456,252	10-10-1995	Vari et al.	
	79	5,479,934	01-02-1996	Imran	
	80	5,482,036	01-09-1996	Diab et al.	
	81	5,483,968	01-16-1996	Adam et al.	
	82	5,490,505	02-13-1996	Diab et al.	
	83	5,494,041	02-27-1996	Wilk	
	84	5,494,043	02-27-1996	O'Sullivan et al.	
	85	5,503,149	04-02-1996	Beavin	
	86	5,505,202	04-09-1996	Mogi et al.	
	87	5,533,511	07-09-1996	Kaspari et al.	

Examiner Signature	Date Considered

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

	Application No.	15/499619
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STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI AFFEIGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 4 OF 45	Attorney Docket No.	MASIMO.317C9

	-	Document Number	U.S. PATENT Publication		Pages, Columns, Lines Where
Examiner Initials	Cite No.	Number - Kind Code (if known) Example: 1,234,567 B1	Date MM-DD-YYYY	Name	Relevant Figures Appear
	88	5,534,851	07-09-1996	Russek	
	89	5,537,289	07-16-1996	Dahl	
	90	5,544,649	08-13-1996	David et al.	
	91	5,553,609	09-10-1996	Chen et al.	
	92	5,558,638	09-24-1996	Evers et al.	
	93	5,561,275	10-01-1996	Savage et al.	
	94	5,562,002	10-08-1996	Lalin	
	95	5,566,676	10-22-1996	Rosenfeldt et al.	
	96	5,576,952	11-19-1996	Stutman et al.	
	97	5,579,001	11-26-1996	Dempsey et al.	
	98	5,590,649	01-07-1997	Caro et al.	
	99	5,602,924	02-11-1997	Durand et al.	
	100	5,619,991	04-15-1997	Sloane	
	101	5,632,272	05-27-1997	Diab et al.	
	102	5,638,816	06-17-1997	Kiani-Azarbayjany et al.	
	103	5,638,818	06-17-1997	Diab et al.	
	104	5,640,967	06-24-1997	Fine et al.	
	105	5,645,440	07-08-1997	Tobler et al.	
	106	5,685,299	11-11-1997	Diab et al.	
	107	5,685,314	11-11-1997	Geheb et al.	
	108	5,687,717	11-18-1997	Halpern et al.	
	109	5,694,020	12-02-1997	Lang et al.	
	110	5,724,580	03-03-1998	Levin et al.	
	111	5,724,983	03-10-1998	Selker et al.	
	112	5,725,308	03-10-1998	Smith et al.	
	113	5,734,739	03-31-1998	Sheehan et al.	
	114	5,743,262	04-28-1998	Lepper, Jr. et al.	
	115	5,758,079	05-26-1998	Ludwig et al.	
	116	5,758,644	06-02-1998	Diab et al.	

Examiner Signature Date Considered

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI ALLEIOANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 5 OF 45	Attorney Docket No.	MASIMO.317C9

	U.S. PATENT DOCUMENTS							
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear			
	117	5,760,910	06-02-1998	Lepper, Jr. et al.				
	118	5,769,785	06-23-1998	Diab et al.				
	119	5,772,585	06-30-1998	Lavin et al.				
	120	5,782,757	07-21-1998	Diab et al.				
	121	5,782,805	07-21-1998	Meinzer				
	122	5,785,659	07-28-1998	Caro et al.				
	123	5,791,347	08-11-1998	Flaherty et al.				
	124	5,801,637	09-01-1998	Lomholt Ole				
	125	5,810,734	09-22-1998	Caro et al.				
	126	5,813,403	09-29-1998	Soller et al.				
	127	5,822,544	10-13-1998	Chaco et al.				
	128	5,822,546	10-13-1998	George				
	129	5,823,950	10-20-1998	Diab et al.				
	130	5,829,723	11-03-1998	Brunner				
	131	5,830,131	11-03-1998	Caro et al.				
	132	5,833,618	11-10-1998	Caro et al.				
	133	5,855,550	01-05-1999	Lai et al.				
	134	5,860,919	01-19-1999	Kiani-Azarbayjany et al.				
	135	5,876,351	03-02-1999	Rohde				
	136	5,890,929	04-06-1999	Mills et al.				
	137	5,904,654	05-18-1999	Wohltmann et al.				
	138	5,910,139	06-08-1999	Cochran et al.				
	139	5,919,134	07-06-1999	Diab				
	140	5,921,920	07-13-1999	Marshall et al.				
	141	5,924,074	07-13-1999	Evans				
	142	5,931,160	08-03-1999	Gilmore et al.				
	143	5,931,791	08-03-1999	Saltzstein et al.				
	144	5,934,925	08-10-1999	Tobler et al.				
	145	5,940,182	08-17-1999	Lepper, Jr. et al.				

Examiner Signature	Date Considered

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI AFFEIGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 6 OF 45	Attorney Docket No.	MASIMO.317C9

	U.S. PATENT DOCUMENTS						
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear		
	146	5,942,986	08-24-1999	Shabot et al.			
	147	5,987,519	11-16-1999	Peifer et al.			
	148	5,995,855	11-30-1999	Kiani et al.			
	149	5,997,343	12-07-1999	Mills et al.			
	150	6,002,952	12-14-1999	Diab et al.			
	151	6,006,119	12-21-1999	Soller et al.			
	152	6,011,986	01-04-2000	Diab et al.			
	153	6,014,346	01-11-2000	Malone			
	154	6,018,673	01-25-2000	Chin et al.			
	155	6,024,699	02-15-2000	Surwit et al.			
	156	6,027,452	02-22-2000	Flaherty et al.			
	157	6,032,678	03-07-2000	Rottem			
	158	6,035,230	03-07-2000	Kang et al.			
	159	6,036,642	03-14-2000	Diab et al.			
	160	6,036,718	03-14-2000	Ledford et al.			
	161	6,045,509	04-04-2000	Caro et al.			
	162	6,045,527	04-04-2000	Appelbaum et al.			
	163	6,057,758	05-02-2000	Dempsey et al.			
	164	6,067,462	05-23-2000	Diab et al.			
	165	6,081,735	06-27-2000	Diab et al.			
	166	6,088,607	07-11-2000	Diab et al.			
	167	6,093,146	07-25-2000	Filangeri			
	168	6,101,478	08-08-2000	Brown			
	169	6,106,463	08-22-2000	Wilk			
	170	6,110,522	08-29-2000	Lepper, Jr. et al.			
	171	6,124,597	09-26-2000	Shehada			
	172	6,128,521	10-03-2000	Marro et al.			
	173	6,129,675	10-10-2000	Jay			
	174	6,132,218	10-17-2000	Benja-Athon			

Examiner Signature Date Considered

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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI ALLEIOANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 7 OF 45	Attorney Docket No.	MASIMO.317C9

Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	175	6,139,494	10-31-2000	Cairnes	
	176	6,144,868	11-07-2000	Parker	
	177	6,151,516	11-21-2000	Kiani-Azarbayjany et al.	
	178	6,152,754	11-28-2000	Gerhardt et al.	
	179	6,157,850	12-05-2000	Diab et al.	
	180	6,165,005	12-26-2000	Mills et al.	
	181	6,167,258	12-26-2000	Schmidt et al.	
	182	6,168,563	01-02-2001	Brown	
	183	6,171,237	01-09-2001	Avitall et al.	
	184	6,175,752	01-16-2001	Say et al.	
	185	6,183,417	02-06-2001	Gehab et al.	
	186	6,184,521	02-06-2001	Coffin, IV et al.	
	187	6,185,448	02-06-2001	Borovsky	
	188	6,195,576	02-27-2001	John	
	189	6,206,830	03-27-2001	Diab et al.	
	190	6,221,012	04-24-2001	Maschke et al.	
	191	6,224,553	05-01-2001	Nevo	
	192	6,229,856	05-08-2001	Diab et al.	
	193	6,230,142	05-08-2001	Benigno et al.	
	194	6,232,609	05-15-2001	Snyder et al.	
	195	6,236,872	05-22-2001	Diab et al.	
	196	6,241,683	06-05-2001	Macklem, et al.	
	197	6,251,113	06-26-2001	Appelbaum	
	198	6,253,097	06-26-2001	Aronow et al.	
	199	6,256,523	07-03-2001	Diab et al.	
	200	6,263,222	07-17-2001	Diab et al.	
	201	6,267,723	07-31-2001	Matsumura et al.	
	202	6,269,262	07-31-2001	Kandori et al.	
	203	6,278,522	08-21-2001	Lepper, Jr. et al.	

Examir	ner Signature		Date Considered			

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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI AFFEIGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 8 OF 45	Attorney Docket No.	MASIMO.317C9

Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	204	6,280,213	08-28-2001	Tobler et al.	
	205	6,285,896	09-04-2001	Tobler et al.	
	206	6,301,493	10-09-2001	Marro et al.	
	207	6,304,767	10-16-2001	Soller et al.	
	208	6,312,378	11-06-2001	Bardy	
	209	6,317,627	11-13-2001	Ennen et al.	
	210	6,321,100	11-20-2001	Parker	
	211	6,322,502	11-27-2001	Schoenberg et al.	
	212	6,325,761	12-04-2001	Jay	
	213	6,329,139	12-11-2001	Nova et al.	
	214	6,334,065	12-25-2001	Al-Ali et al.	
	215	6,338,039	01-08-2002	Lonski et al.	
	216	6,343,224	01-29-2002	Parker	
	217	6,349,228	02-19-2002	Kiani et al.	
	218	6,352,504	03-05-2002	lse	
	219	6,354,235	03-12-2002	Davies, Roberty C.	
	220	6,360,114	03-19-2002	Diab et al.	
	221	6,364,834	04-02-2002	Reuss et al.	
	222	6,364,839	04-02-2002	Little et al.	
	223	6,368,283	04-09-2002	Xu et al.	
	224	6,371,921	04-16-2002	Caro et al.	
	225	6,377,829	04-23-2002	Al-Ali	
	226	6,385,476	05-07-2002	Osadchy et al.	
	227	6,385,589	05-07-2002	Trusheim et al.	
	228	6,388,240	05-14-2002	Schulz et al.	
	229	6,397,091	05-28-2002	Diab et al.	
	230	6,407,335	06-18-2002	Franklin-Lees	
	231	6,430,437	08-06-2002	Marro	
	232	6,430,525	08-06-2002	Weber et al.	

Examiner Signature Date Considered

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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI ALLEIOANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 9 OF 45	Attorney Docket No.	MASIMO.317C9

	U.S. PATENT DOCUMENTS				
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	233	6,463,311	10-08-2002	Diab	
	234	6,470,199	10-22-2002	Kopotic et al.	
	235	6,470,893	10-29-2002	Boesen, Peter V.	
	236	6,501,975	12-31-2002	Diab et al.	
	237	6,505,059	01-07-2003	Kollias, et al.	
	238	6,515,273	02-04-2003	Al-Ali	
	239	6,519,487	02-11-2003	Parker	
	240	6,524,240	02-25-2003	Thede, Roger C.	
	241	6,525,386	02-25-2003	Mills et al.	
	242	6,526,300	02-25-2003	Kiani et al.	
	243	6,541,756	04-01-2003	Schulz et al.	
	244	6,542,764	04-01-2003	Al-Ali et al.	
	245	6,544,173	04-08-2003	West et al.	
	246	6,544,174	04-08-2003	West et al.	
	247	6,551,243	04-22-2003	Bocionek et al.	
	248	6,578,428	06-17-2003	Dromms et al.	
	249	6,580,086	06-17-2003	Schulz et al.	
	250	6,584,336	06-24-2003	Ali et al.	
	251	6,595,316	07-22-2003	Cybulski et al.	
	252	6,597,932	07-22-2003	Tian et al.	
	253	6,597,933	07-22-2003	Kiani et al.	
	254	6,606,511	08-12-2003	Ali et al.	
	255	6,616,606	09-09-2003	Peterson et al.	
	256	6,632,181	10-14-2003	Flaherty et al.	
	257	6,639,668	10-28-2003	Trepagnier, Pierre	
	258	6,640,116	10-28-2003	Diab	
	259	6,641,533	11-04-2003	Causey et al.	
	260	6,643,530	11-04-2003	Diab et al.	
	261	6,646,556	11-11-2003	Smith et al.	

Examiner Signature	Date Considered

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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI AFFEIGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 10 OF 45	Attorney Docket No.	MASIMO.317C9

			U.S. PATENT	DOCUMENTS	
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	262	6,650,917	11-18-2003	Diab et al.	
	263	6,650,939	11-18-2003	Takpke, II et al.	
	264	6,654,624	11-25-2003	Diab et al.	
	265	6,658,276	12-02-2003	Kianl et al.	
	266	6,661,161	12-09-2003	Lanzo et al.	
	267	6,663,570	12-16-2003	Mott et al.	
	268	6,671,531	12-30-2003	Al-Ali et al.	
	269	6,678,543	01-13-2004	Diab et al.	
	270	6,684,090	01-27-2004	Ali et al.	
	271	6,684,091	01-27-2004	Parker	
	272	6,694,180	02-17-2004	Boesen, Peter V.	
	273	6,697,656	02-24-2004	Al-Ali	
	274	6,697,657	02-24-2004	Shehada, et al.	
	275	6,697,658	02-24-2004	Al-Ali	
	276	6,699,194	03-02-2004	Diab et al.	
	277	6,714,804	03-30-2004	Al-Ali et al.	
	278	6,719,694	04-13-2004	Weng et al.	
	279	6,721,582	04-13-2004	Trepagnier, et al.	
	280	6,721,585	04-13-2004	Parker	
	281	6,725,075	04-20-2004	Al-Ali	
	282	6,725,086	04-20-2004	Marinello	
	283	6,728,560	04-27-2004	Kollias, et al.	
	284	6,735,459	05-11-2004	Parker	
	285	6,745,060	06-01-2004	Diab et al.	
	286	6,746,406	07-07-2015	Wawro	
	287	6,750,463	06-15-2004	Riley	
	288	6,751,492	06-15-2004	Ben-haim, Shlomo	
	289	6,760,607	07-06-2004	Al-Ali	
	290	6,766,188	07-20-2004	Soller	

Examiner Signature Date Considered

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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI AFFEIGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 11 OF 45	Attorney Docket No.	MASIMO.317C9

Examiner Initials	Cite No.	Document Number Number - Kind Code (if known)	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or
	291	Example: 1,234,567 B1 6,770,028	08-03-2004	Ali et al.	Relevant Figures Appear
	292	6,771,994	08-03-2004	Kiani et al.	
	293	6,783,492	08-31-2004	Dominguez	
	294	6,790,178	09-14-2004	Mault et al.	
	295	6,792,300	09-14-2004	Diab et al.	
	296	6,795,724	09-21-2004	Hogan	
	297	6,796,186	09-28-2004	Lia et al.	
	298	6,804,656	10-12-2004	Rosenfeld	
	299	6,807,050	10-19-2004	Whitehorn et al.	
	300	6,813,511	11-02-2004	Diab et al.	
	301	6,816,741	11-02-2004	Diab et al.	
	302	6,817,979	11-16-2004	Nihtila et al.	
	302	6,822,564	11-23-2004	Al-Ali	
	303		11-30-2004	Diab et al.	
		6,826,419			
	305	6,830,711	12-14-2004	Mills et al.	
	306	6,837,848	01-04-2005	Bonner et al.	
	307	6,841,535	01-11-2005	Divita et al.	
	308	6,850,787	02-01-2005	Weber et al.	
	309	6,850,788	02-01-2005	Al-Ali	
	310	6,852,083	02-08-2005	Caro et al.	
	311	6,855,112	02-15-2005	Kao et al.	
	312	6,860,266	03-01-2005	Blike	
	313	6,861,639	03-01-2005	Al-Ali	
	314	6,897,788	05-24-2005	Khair et al.	
	315	6,898,452	05-24-2005	Al-Ali et al.	
	316	6,907,237	06-14-2005	Dorenbosch et al.	
	317	6,915,149	07-05-2005	Ben-haim	
	318	6,920,345	07-19-2005	Al-Ali et al.	
	319	6,931,268	08-16-2005	Kiani-Azarbayjany et al.	

Examiner Signature Date Considered

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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI AFFEIGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 12 OF 45	Attorney Docket No.	MASIMO.317C9

		Document Number	U.S. PATENT Publication		Pages, Columns, Lines Where
Examiner Initials	Cite No.	Number - Kind Code (if known) Example: 1,234,567 B1	Date MM-DD-YYYY	Name	Relevant Figures Appear
	320	6,934,570	08-23-2005	Kiani et al.	
	321	6,939,305	09-06-2005	Flaherty et al.	
	322	6,943,348	09-13-2005	Coffin IV	
	323	6,950,687	09-27-2005	Al-Ali	
	324	6,952,340	10-04-2005	Kyoung Sun Son	
	325	6,961,598	11-01-2005	Diab	
	326	6,970,792	11-29-2005	Diab	
	327	6,979,812	12-27-2005	Al-Ali	
	328	6,980,419	12-27-2005	Smith et al.	
	329	6,983,179	01-03-2006	Ben-haim	
	330	6,985,764	01-10-2006	Mason et al.	
	331	6,988,989	01-24-2006	Weiner et al.	
	332	6,990,087	01-24-2006	Rao et al	
	333	6,993,371	01-31-2006	Kiani et al.	
	334	6,996,427	02-07-2006	Ali et al.	
	335	6,997,884	02-14-2006	Ulmsten	
	336	6,999,904	02-14-2006	Weber et al.	
	337	7,003,338	02-21-2006	Weber et al.	
	338	7,003,339	02-21-2006	Diab et al.	
	339	7,015,451	03-21-2006	Dalke et al.	
	340	7,024,233	04-04-2006	Ali et al.	
	341	7,025,729	04-11-2006	De Chazal et al.	
	342	7,027,849	04-11-2006	Al-Ali	
	343	7,030,749	04-18-2006	Al-Ali	
	344	7,033,761	04-25-2006	Shafer	
	345	7,035,686	04-25-2006	Hogan	
	346	7,039,449	05-02-2006	Al-Ali	
	347	7,041,060	05-09-2006	Flaherty et al	
	348	7,044,918	05-16-2006	Diab	

Examiner Signature Date Considered

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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI AFFEIGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 13 OF 45	Attorney Docket No.	MASIMO.317C9

Examiner Initials	Cite No.	Document Number Number - Kind Code (if known)	Publication Date	Name	Pages, Columns, Lines Where Relevant Passages or
milais	_	Example: 1,234,567 B1	MM-DD-YYYY		Relevant Figures Appear
	349	7,044,930	05-16-2006	Stromberg	
	350	7,063,666	06-20-2006	Weng et al.	
	351	7,067,893	06-27-2006	Mills et al.	
	352	7,079,035	07-18-2006	Bock et al.	
	353	7,096,052	08-22-2006	Mason et al.	
	354	7,096,054	08-22-2006	Abdul-Hafiz et al.	
	355	7,132,641	11-07-2006	Schulz et al.	
	356	7,142,901	11-28-2006	Kiani et al.	
	357	7,149,561	12-12-2006	Diab	
	358	7,186,966	03-06-2007	Al-Ali	
	359	7,188,621	03-13-2007	DeVries et al.	
	360	7,190,261	03-13-2007	Al-Ali	
	361	7,208,119	04-24-2007	Kurtock et al.	
	362	7,215,984	05-08-2007	Diab	
	363	7,215,986	05-08-2007	Diab	
	364	7,221,971	05-22-2007	Diab	
	365	7,225,006	05-29-2007	Al-Ali et al.	
	366	7,225,007	05-29-2007	Al-Ali	
	367	7,229,415	06-12-2007	Schwartz	
	368	7,239,905	07-03-2007	Kiani-Azarbayjany et al.	
	369	7,241,287	07-10-2007	Shehada et al.	
	370	7,244,251	07-17-2007	Shehada et al.	
	371	7,245,373	07-17-2007	Soller et al.	
	372	7,245,953	07-17-2007	Parker	
	373	7,252,659	08-17-2007	Shehada et al.	
	374	7,254,429	08-07-2007	Schurman et al.	
	375	7,254,431	08-07-2007	Al-Ali	
	376	7,254,433	08-07-2007	Diab et al.	
	377	7,254,434	08-07-2007	Schulz et al.	

Examiner Signature Date Considered

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI ALLEIOANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 14 OF 45	Attorney Docket No.	MASIMO.317C9

		Document Number	U.S. PATENT Publication		Pages, Columns, Lines Where
Examiner Initials	Cite No.	Number - Kind Code (if known) Example: 1,234,567 B1	Date MM-DD-YYYY	Name	Relevant Passages or Relevant Figures Appear
	378	7,256,708	08-14-2007	Rosenfeld	
	379	7,261,697	08-28-2007	Berstein	
	380	7,264,616	09-04-2007	Shehada et al.	
	381	7,267,671	09-11-2007	Shehada et al.	
	382	7,272,425	09-18-2007	Al-Ali	
	383	7,274,955	09-25-2007	Kiani et al.	
	384	7,280,858	10-09-2007	Al-Ali et al.	
	385	7,285,090	10-23-2007	Stivoric	
	386	7,289,835	10-30-2007	Mansfield et al.	
	387	7,292,883	11-06-2007	De Felice et al.	
	388	7,295,866	11-13-2007	Al-Ali	
	389	7,307,543	12-11-2007	Rosenfeld	
	390	7,313,423	12-25-2007	Griffin et al.	
	391	7,314,446	01-01-2008	Byrd et al.	
	392	7,315,825	01-01-2008	Rosenfeld	
	393	7,321,862	01-22-2008	Rosenfeld	
	394	7,322,971	01-29-2008	Shehada et al.	
	395	7,328,053	02-05-2008	Diab et al.	
	396	7,332,784	02-19-2008	Mills et al.	
	397	7,340,287	03-04-2008	Mason et al.	
	398	7,341,559	03-11-2008	Schulz et al.	
	399	7,343,186	03-11-2008	Lamego et al.	
	400	7,355,512	04-08-2008	Al-Ali	
	401	7,356,178	04-08-2008	Ziel et al.	
	402	7,356,365	04-08-2008	Schurman	
	403	7,371,981	05-13-2008	Abdul-Hafiz	
	404	7,373,193	05-13-2008	Al-Ali et al.	
	405	7,373,194	05-13-2008	Weber et al.	
	406	7,376,453	05-20-2008	Diab et al.	

Examiner	Signature		Date Considered	Date Considered			

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI AFFEIGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 15 OF 45	Attorney Docket No.	MASIMO.317C9

Examiner	Cite	Document Number Number - Kind Code (if known)	Publication Date	Name	Pages, Columns, Lines Where Relevant Passages or
Initials	No.	Example: 1,234,567 B1	MM-DD-YYYY		Relevant Figures Appear
	407	7,377,794	05-27-2008	Al Ali et al.	
	408	7,377,899	05-27-2008	Weber et al.	
	409	7,378,975	05-27-2008	Smith et al.	
	410	7,382,247	06-03-2008	Welch et al.	
	411	7,383,070	06-03-2008	Diab et al.	
	412	7,390,299	06-24-2008	Weiner et al.	
	413	7,395,216	07-01-2008	Rosenfeld	
	414	7,411,509	08-12-2008	Rosenfeld	
	415	7,413,546	08-19-2008	Agutter et al.	
	416	7,415,297	08-19-2008	Al-Ali et al.	
	417	7,419,483	09-02-2008	Shehada	
	418	7,428,432	09-23-2008	Ali et al.	
	419	7,433,827	10-07-2008	Rosenfeld	
	420	7,438,683	10-21-2008	Al-Ali et al.	
	421	7,439,856	10-21-2008	Weiner et al.	
	422	7,440,787	10-21-2008	Diab	
	423	7,454,240	11-18-2008	Diab et al.	
	424	7,454,359	11-18-2008	Rosenfeld	
	425	7,454,360	11-18-2008	Rosenfeld	
	426	7,462,151	12-09-2008	Childre et al.	
	427	7,467,002	12-16-2008	Weber et al.	
	428	7,467,094	12-16-2008	Rosenfeld	
	429	7,469,157	12-23-2008	Diab et al.	
	430	7,471,969	12-30-2008	Diab et al.	
	431	7,471,971	12-30-2008	Diab et al.	
	432	7,475,019	01-06-2009	Rosenfeld	
	433	7,483,729	01-27-2009	Al-Ali et al.	
	434	7,483,730	01-27-2009	Diab et al.	
	435	7,489,250	02-10-2009	Bock et al.	

Examiner Signature Date Considered

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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI ALLEIOANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 16 OF 45	Attorney Docket No.	MASIMO.317C9

Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	436	7,489,958	02-10-2009	Diab et al.	
	437	7,496,391	02-24-2009	Diab et al.	
	438	7,496,393	02-24-2009	Diab et al.	
	439	7,497,828	03-03-2009	Wilk et al.	
	440	7,499,741	03-03-2009	Diab et al.	
	441	7,499,835	03-03-2009	Weber et al.	
	442	7,500,950	03-10-2009	Al-Ali et al.	
	443	7,509,154	03-24-2009	Diab et al.	
	444	7,509,494	03-24-2009	Al-Ali	
	445	7,510,849	03-31-2009	Schurman et al.	
	446	7,515,043	04-07-2009	Welch et al.	
	447	7,515,044	04-07-2009	Welch et al.	
	448	7,526,328	04-28-2009	Diab et al.	
	449	7,530,942	05-12-2009	Diab	
	450	7,530,949	05-12-2009	Al Ali et al.	
	451	7,530,955	05-12-2009	Diab et al.	
	452	7,532,919	05-12-2009	Soyemi et al.	
	453	7,549,961	06-23-2009	Hwang	
	454	7,551,717	06-23-2009	Tome et al.	
	455	7,559,520	07-14-2009	Quijano et al.	
	456	7,563,110	07-21-2009	Al-Ali et al.	
	457	7,577,475	08-18-2009	Consentino et al	
	458	7,590,950	09-15-2009	Collins et al.	
	459	7,596,398	09-29-2009	Al-Ali et al.	
	460	7,597,665	10-06-2009	Wilk et al.	
	461	7,612,999	11-03-2009	Clark et al.	
	462	7,616,303	11-10-2009	Yang et al.	
	463	7,618,375	11-17-2009	Flaherty	
	464	7,639,145	12-29-2009	Lawson et al.	

Examiner Signature	Date Considered

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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI AFFEIGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 17 OF 45	Attorney Docket No.	MASIMO.317C9

Examiner Initials	Cite No.	Document Number Number - Kind Code (if known)	Publication Date	Name	Pages, Columns, Lines Where Relevant Passages or
IIIIIais		Example: 1,234,567 B1	MM-DD-YYYY		Relevant Figures Appear
	465	7,647,083	01-12-2010	Al-Ali et al.	
	466	7,650,291	01-19-2010	Rosenfeld	
	467	7,654,966	02-02-2010	Westinskow et al.	
	468	7,684,845	03-23-2010	Juan	
	469	7,689,437	03-30-2010	Teller et al.	
	470	7,693,697	04-06-2010	Westinskow et al.	
	471	7,722,542	05-25-2010	Lia et al.	
	472	7,729,733	06-01-2010	Al-Ali et al.	
	473	7,734,320	06-08-2010	Al-Ali	
	474	7,736,318	06-15-2010	Consentino et al	
	475	7,740,590	06-22-2010	Bernstein	
	476	7,761,127	07-20-2010	Al-Ali et al.	
	477	7,761,128	07-20-2010	Al-Ali et al.	
	478	7,763,420	07-27-2010	Strizker et al.	
	479	7,764,982	07-27-2010	Dalke et al.	
	480	7,766,818	08-10-2010	lketani et al.	
	481	7,774,060	08-10-2012	Westenskow et al.	
	482	7,778,851	08-17-2010	Schoenberg et al.	
	483	7,791,155	09-07-2010	Diab	
	484	7,794,407	09-14-2010	Rothenberg	
	485	7,801,581	09-21-2010	Diab	
	486	7,806,830	10-05-2010	Bernstein	
	487	7,820,184	10-26-2010	Strizker et al.	
	488	7,822,452	10-26-2010	Schurman et al.	
	489	7,831,450	11-09-2010	Schoenberg	
	490	7,841,986	11-30-2010	He et al.	
	491	7,844,313	11-30-2010	Kiani et al.	
	492	7,844,314	11-30-2010	Al-Ali	
	493	7,844,315	11-30-2010	Al-Ali	

Examiner Signature Date Considered

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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI AFFEIGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 18 OF 45	Attorney Docket No.	MASIMO.317C9

		Document Number	U.S. PATENT Publication		Pages, Columns, Lines Where
Examiner Initials	Cite No.	Number - Kind Code (if known) Example: 1,234,567 B1	Date MM-DD-YYYY	Name	Relevant Figures Appear
	494	7,848,935	12-07-2010	Gotlib	
	495	7,858,322	12-28-2010	Tymianski et al.	
	496	7,865,222	01-04-2011	Weber et al.	
	497	7,865,232	01-04-2011	Krishnaswamy et al.	
	498	7,873,497	01-18-2011	Weber et al.	
	499	7,880,606	02-01-2011	Al-Ali	
	500	7,880,626	02-01-2011	Al-Ali et al.	
	501	7,881,892	02-01-2011	Soyemi et al.	
	502	7,884,314	02-08-2011	Hamada	
	503	7,890,156	02-15-2011	Ooi et al.	
	504	7,891,355	02-22-2011	Al-Ali et al.	
	505	7,894,868	02-22-2011	Al-Ali et al.	
	506	7,899,507	03-01-2011	Al-Ali et al.	
	507	7,899,518	03-01-2011	Trepagnier et al.	
	508	7,904,132	03-08-2011	Weber et al.	
	509	7,909,772	03-22-2011	Popov et al.	
	510	7,910,875	03-22-2011	Al-Ali	
	511	7,914,514	03-29-2011	Calderon	
	512	7,919,713	04-05-2011	Al-Ali et al.	
	513	7,937,128	05-03-2011	Al-Ali	
	514	7,937,129	05-03-2011	Mason et al.	
	515	7,937,130	05-03-2011	Diab et al.	
	516	7,941,199	05-10-2011	Kiani	
	517	7,951,086	05-31-2011	Flaherty et al.	
	518	7,957,780	06-07-2011	Lamego et al.	
	519	7,962,188	06-14-2011	Kiani et al.	
	520	7,962,190	06-14-2011	Diab et al.	
	521	7,963,927	06-21-2011	Kelleher et al.	
	522	7,967,749	06-28-2011	Hutchinson et al.	

Examiner Signature Date Considered

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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI ALLEIOANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 19 OF 45	Attorney Docket No.	MASIMO.317C9

Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	523	7,976,472	07-12-2011	Kiani	Jan State State Photo
	524	7,988,637	08-02-2011	Diab	
	525	7,988,639	08-02-2011	Starks	
	526	7,990,382	08-02-2011	Kiani	
	527	7,991,446	08-02-2011	Al-Ali et al.	
	528	7,991,463	08-02-2011	Kelleher et al.	
	529	7,991,625	08-02-2011	Rosenfeld	
	530	8,000,761	08-16-2011	Al-Ali	
	531	8,008,088	08-30-2011	Bellott et al.	
	532	8,019,400	09-13-2011	Diab et al.	
	533	8,027,846	09-27-2011	Schoenberg	
	534	8,028,701	10-04-2011	Al-Ali et al.	
	535	8,029,765	10-04-2011	Bellott et al.	
	536	8,033,996	10-11-2011	Behar	
	537	8,036,727	10-11-2011	Schurman et al.	
	538	8,036,728	10-11-2011	Diab et al.	
	539	8,036,736	10-11-2011	Snyder et al.	
	540	8,038,625	10-18-2011	Afonso X et al.	
	541	8,046,040	10-25-2011	Ali et al.	
	542	8,046,041	10-25-2011	Diab et al.	
	543	8,046,042	10-25-2011	Diab et al.	
	544	8,048,040	11-01-2011	Kiani	
	545	8,050,728	11-01-2011	Al-Ali et al.	
	546	8,068,104	11-29-2011	Rampersad	
	547	8,073,707	12-06-2011	Teller et al.	
	548	8,094,013	01-10-2012	Lee et al.	
	549	8,118,620	02-21-2012	Al-Ali et al.	
	550	8,126,528	02-28-2012	Diab et al.	
	551	8,128,572	03-06-2012	Diab et al.	

Examiner Signature	Date Considered	
*Eveninen Initial if veference considered whether or not situation is in conferm	ence with MREP (00). Drew line through citation if not	

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. T¹ - Place a check mark in this area when an English language Translation is attached.

ALL REFERENCES CONSIDERED EX (30) T WHERE LINED THROUGH. /E.F.W/
	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI ALLEIOANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 20 OF 45	Attorney Docket No.	MASIMO.317C9

Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	552	8,130,105	03-06-2012	Al-Ali et al.	
	553	8,145,287	03-27-2012	Diab et al.	
	554	8,150,487	04-03-2012	Diab et al.	
	555	8,170,887	05-01-2012	Rosenfeld	
	556	8,175,672	05-08-2012	Parker	
	557	8,175,895	05-08-2012	Rosenfeld	
	558	8,180,420	05-15-2012	Diab et al.	
	559	8,182,443	05-22-2012	Kiani	
	560	8,185,180	05-22-2012	Diab et al.	
	561	8,190,223	05-29-2012	Al-Ali et al.	
	562	8,190,227	05-29-2012	Diab et al.	
	563	8,200,308	06-12-2012	Zhang et al.	
	564	8,203,438	06-19-2012	Kiani et al.	
	565	8,203,704	06-19-2012	Merritt et al.	
	566	8,204,566	06-19-2012	Schurman et al.	
	567	8,206,312	06-26-2012	Farquhar	
	568	8,214,007	07-03-2012	Baker et al.	
	569	8,219,172	07-10-2012	Schurman et al.	
	570	8,224,411	07-17-2012	Al-Ali et al.	
	571	8,228,181	07-24-2012	Al-Ali	
	572	8,229,533	07-24-2012	Diab et al.	
	573	8,233,955	07-31-2012	Al-Ali et al.	
	574	8,235,907	08-07-2012	Wilk et al.	
	575	8,239,780	08-07-2012	Manetta et al.	
	576	8,241,213	08-14-2012	Lynn et al.	
	577	8,244,325	08-14-2012	Al-Ali et al.	
	578	8,249,815	08-21-2012	Taylor	
	579	8,255,026	08-28-2012	Al-Ali	
	580	8,255,027	08-28-2012	Al-Ali et al.	

Examiner Signature	Date Considered

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

T¹ - Place a check mark in this area when an English language Translation is attached. ALL REFERENCES CONSIDERED EXTREPT WHERE LINED THROUGH. /E.F.W/

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI AFFEIGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 21 OF 45	Attorney Docket No.	MASIMO.317C9

		Document Number	U.S. PATENT Publication		Pages, Columns, Lines Where
Examiner Initials	Cite No.	Number - Kind Code (if known) Example: 1,234,567 B1	Date MM-DD-YYYY	Name	Relevant Figures Appear
	581	8,255,028	08-28-2012	Al-Ali et al.	
	582	8,260,577	09-04-2012	Weber et al.	
	583	8,265,723	09-11-2012	McHale et al.	
	584	8,274,360	09-25-2012	Sampath et al.	
	585	8,294,588	10-23-2012	Fisher et al.	
	586	8,294,716	10-23-2012	Lord et al.	
	587	8,301,217	10-30-2012	Al-Ali et al.	
	588	8,306,596	11-06-2012	Schurman et al.	
	589	8,310,336	11-13-2012	Muhsin et al.	
	590	8,311,747	11-13-2012	Taylor	
	591	8,311,748	11-13-2012	Taylor et al.	
	592	8,315,683	11-20-2012	Al-Ali et al.	
	593	8,315,812	11-20-2012	Taylor	
	594	8,315,813	11-20-2012	Taylor et al.	
	595	8,315,814	11-20-2012	Taylor et al.	
	596	8,321,150	11-27-2012	Taylor	
	597	8,326,649	12-04-2012	Rosenfeld	
	598	8,328,793	12-11-2012	Birkenbach et al.	
	599	8,337,403	12-25-2012	Al-Ali et al.	
	600	8,346,330	01-01-2013	Lamego	
	601	8,353,842	01-15-2013	Al-Ali et al.	
	602	8,355,766	01-15-2013	MacNeish, III et al.	
	603	8,359,080	01-22-2013	Diab et al.	
	604	8,360,936	01-29-2013	Dibenedetto et al.	
	605	8,364,223	01-29-2013	Al-Ali et al.	
	606	8,364,226	01-29-2013	Diab et al.	
	607	8,374,665	02-12-2013	Lamego	
	608	8,385,995	02-26-2013	Al-ali et al.	
	609	8,385,996	02-26-2013	Smith et al.	

Examiner Signature Date Considered

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI ALL EIOANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 22 OF 45	Attorney Docket No.	MASIMO.317C9

Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	610	8,388,353	03-05-2013	Kiani et la.	
	611	8,399,822	03-19-2013	Al-Ali	
	612	8,401,602	03-19-2013	Kiani	
	613	8,401,874	03-19-2013	Rosenfeld	
	614	8,405,608	03-26-2013	Al-Ali et al.	
	615	8,414,499	04-09-2013	Al-Ali et al.	
	616	8,418,524	04-16-2013	Al-Ali	
	617	8,423,106	04-16-2013	Lamego et al.	
	618	8,428,967	04-23-2013	Olsen et al.	
	619	8,430,817	04-30-2013	Al-Ali et al.	
	620	8,437,825	05-07-2013	Dalvi et al.	
	621	8,455,290	06-04-2013	Siskavich	
	622	8,457,703	06-04-2013	Al-Ali	
	623	8,457,707	06-04-2013	Kiani	
	624	8,463,349	06-11-2013	Diab et al.	
	625	8,466,286	06-18-2013	Bellot et al.	
	626	8,471,713	06-25-2013	Poeze et al.	
	627	8,473,020	06-25-2013	Kiani et al.	
	628	8,483,787	07-09-2013	Al-Ali et al.	
	629	8,489,167	07-16-2013	Buxton et al.	
	630	8,489,364	07-16-2013	Weber et al.	
	631	8,498,684	07-30-2013	Weber et al.	
	632	8,504,128	08-06-2013	Blank et al.	
	633	8,509,867	08-13-2013	Workman et al.	
	634	8,515,509	08-20-2013	Bruinsma et al.	
	635	8,523,781	09-03-2013	Al-Ali	
	636	8,529,301	09-10-2013	Al-Ali et al.	
	637	8,532,727	09-10-2013	Ali et al.	
	638	8,532,728	09-10-2013	Diab et al.	

Examiner Signature		Date Considered	

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI AFFEIGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 23 OF 45	Attorney Docket No.	MASIMO.317C9

Examiner	Cite	Document Number	U.S. PATENT Publication		Pages, Columns, Lines Where
Initials	No.	Number - Kind Code (if known) Example: 1,234,567 B1	Date MM-DD-YYYY	Name	Relevant Passages or Relevant Figures Appear
	639	8,547,209	10-01-2013	Kiani et al.	
	640	8,548,548	10-01-2013	Al-Ali	
	641	8,548,549	10-01-2013	Schurman et al.	
	642	8,548,550	10-01-2013	Al-Ali et al.	
	643	8,560,032	10-15-2013	Al-Ali et al.	
	644	8,560,034	10-15-2013	Diab et al.	
	645	8,565,847	10-22-2013	Buxton et al.	
	646	8,570,167	10-29-2013	Al-Ali	
	647	8,570,503	10-29-2013	Vo et al.	
	648	8,571,617	10-29-2013	Reichgott et al.	
	649	8,571,618	10-29-2013	Lamego et al.	
	650	8,571,619	10-29-2013	Al-Ali et al.	
	651	8,577,431	11-05-2013	Lamego et al.	
	652	8,578,082	11-05-2013	Medina et al.	
	653	8,579,813	11-12-2013	Causey, III et al.	
	654	8,581,732	11-12-2013	Al-Ali et al.	
	655	8,584,345	11-19-2013	Al-Ali et al.	
	656	8,588,880	11-19-2013	Abdul-Hafiz et al.	
	657	8,588,924	11-19-2013	Dion	
	658	8,597,287	12-03-2013	Benamou et al.	
	659	8,600,467	12-03-2013	Al-Ali et al.	
	660	8,600,777	12-03-2013	Schoenberg	
	661	8,606,342	12-10-2013	Diab	
	662	8,620,678	12-31-2013	Gotlib	
	663	8,626,255	01-07-2014	Al-Ali et al.	
	664	8,630,691	01-14-2014	Lamego et al.	
	665	8,634,889	01-21-2014	Al-Ali et al.	
	666	8,641,631	02-04-2014	Sierra et al.	
	667	8,652,060	02-18-2014	Al-Ali	

Examiner Signature Date Considered

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI AFFEIGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 24 OF 45	Attorney Docket No.	MASIMO.317C9

Examiner	Cite	Document Number	Publication		Pages, Columns, Lines Where
Initials	No.	Number - Kind Code (if known) Example: 1,234,567 B1	Date MM-DD-YYYY	Name	Relevant Passages or Relevant Figures Appear
	668	8,663,107	03-04-2014	Kiani	
	669	8,666,468	03-04-2014	Al-Ali	
	670	8,667,967	03-11-2014	Al- Ali et al.	
	671	8,670,811	03-11-2014	O'Reilly	
	672	8,670,814	03-11-2014	Diab et al.	
	673	8,676,286	03-18-2014	Weber et al.	
	674	8,682,407	03-25-2014	Al-Ali	
	675	8,690,771	04-08-2014	Wekell et al.	
	676	8,690,799	04-08-2014	Telfort et al.	
	677	8,700,112	04-15-2014	Kiani	
	678	8,702,627	04-22-2014	Telfort et al.	
	679	8,706,179	04-22-2014	Parker	
	680	8,712,494	04-29-2014	MacNeish, III et al.	
	681	8,715,206	05-06-2014	Telfort et al.	
	682	8,718,735	05-06-2014	Lamego et al.	
	683	8,718,737	05-06-2014	Diab et al.	
	684	8,718,738	05-06-2014	Blank et al.	
	685	8,720,249	05-13-2014	Al-Ali	
	686	8,721,541	05-13-2014	Al-Ali et al.	
	687	8,721,542	05-13-2014	Al-Ali et al.	
	688	8,723,677	05-13-2014	Kiani	
	689	8,740,792	06-03-2014	Kiani et al.	
	690	8,754,776	06-17-2014	Poeze et al.	
	691	8,755,535	06-17-2014	Telfort et al.	
	692	8,755,856	06-17-2014	Diab et al.	
	693	8,755,872	06-17-2014	Marinow	
	694	8,761,850	06-24-2014	Lamego	
	695	8,764,671	07-01-2014	Kiani	
	696	8,768,423	07-01-2014	Shakespeare et al.	

Examiner Signature Date Considered

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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI ALLEIOANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 25 OF 45	Attorney Docket No.	MASIMO.317C9

Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	697	8,771,204	07-08-2014	Telfort et al.	
	698	8,777,634	07-15-2014	Kiani et al.	
	699	8,781,543	07-15-2014	Diab et al.	
	700	8,781,544	07-15-2014	Al-Ali et al.	
	701	8,781,549	07-15-2014	Al-Ali et al.	
	702	8,788,003	07-22-2014	Schurman et al.	
	703	8,790,268	07-29-2014	Al-Ali	
	704	8,801,613	08-12-2014	Al-Ali et al.	
	705	8,818,477	08-26-2014	Soller	
	706	8,821,397	09-02-2014	Al-Ali et al.	
	707	8,821,415	09-02-2014	Al-Ali et al.	
	708	8,830,449	09-09-2014	Lamego et al.	
	709	8,831,700	09-09-2014	Schurman et al.	
	710	8,840,549	09-23-2014	Al-Ali et al.	
	711	8,845,543	09-30-2014	Diab et al.	
	712	8,847,740	09-30-2014	Kiani et al.	
	713	8,849,365	09-30-2014	Smith et al.	
	714	8,852,094	10-07-2014	Al-Ali et al.	
	715	8,852,994	10-07-2014	Wojtczuk et al.	
	716	8,866,620	10-21-2014	Amir	
	717	8,868,147	10-21-2014	Stippick et al.	
	718	8,868,150	10-21-2014	Al-Ali et al.	
	719	8,870,792	10-28-2014	Al-Ali et al.	
	720	8,873,035	10-28-2014	Yang et al.	
	721	8,878,888	11-04-2014	Rosenfeld	
	722	8,886,271	11-11-2014	Kiani et al.	
	723	8,888,539	11-18-2014	Al-Ali et al.	
	724	8,888,708	11-18-2014	Diab et al.	
	725	8,892,180	11-18-2014	Weber et al.	

Examiner Signature	Date Considered	
*Examiner: Initial if reference considered, whether or not citation is in conform	ance with MPEP 609. Draw line through citation if not	

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T¹ - Place a check mark in this area when an English language Translation is attached. ALL REFERENCES CONSIDERED EX**136**T WHERE LINED THROUGH. /E.F.W/

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI ALLEIOANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 26 OF 45	Attorney Docket No.	MASIMO.317C9

Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	726	8,897,847	11-25-2014	Al-Ali	
	727	8,907,287	12-09-2014	Vanderpohl	
	728	8,909,310	12-09-2014	Lamego et al.	
	729	8,911,377	12-16-2014	Al-Ali	
	730	8,912,909	12-16-2014	Al-Ali et al.	
	731	8,920,317	12-30-2014	Al-Ali et al.	
	732	8,921,699	12-30-2014	Al-Ali et al.	
	733	8,922,382	12-30-2014	Al-Ali et al.	
	734	8,929,964	01-06-2015	Al-Ali et al.	
	735	8,942,777	01-27-2015	Diab et al.	
	736	8,948,834	02-03-2015	Diab et al.	
	737	8,948,835	02-03-2015	Diab	
	738	8,951,248	02-10-2015	Messerly et al.	
	739	8,956,292	02-17-2015	Wekell et al.	
	740	8,965,471	02-24-2015	Lamego	
	741	8,983,564	03-17-2015	Al-Ali	
	742	8,989,831	03-24-2015	Al-Ali et al.	
	743	8,996,085	03-31-2015	Kiani et al.	
	744	8,998,809	04-07-2015	Kiani	
	745	9,028,429	05-12-2015	Telfort et al.	
	746	9,037,207	05-19-2015	Al-Ali et al.	
	747	9,057,689	06-16-2015	Soller	
	748	9,060,721	06-23-2015	Reichgott et al.	
	749	9,066,666	06-30-2015	Kiani	
	750	9,066,680	06-30-2015	Al-Ali et al.	
	751	9,072,474	07-07-2015	Al-Ali et al.	
	752	9,078,560	07-14-2015	Schurman et al.	
	753	9,084,569	07-21-2015	Weber et al.	
	754	9,095,291	08-04-2015	Soller	

Examiner Signature	Date Considered

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI ALLEIOANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 27 OF 45	Attorney Docket No.	MASIMO.317C9

	U.S. PATENT DOCUMENTS				
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	755	9,095,316	08-04-2015	Welch et al.	
	756	9,106,038	08-11-2015	Telfort et al.	
	757	9,107,625	08-18-2015	Telfort et al.	
	758	9,107,626	08-18-2015	Al-Ali et al.	
	759	9,113,831	08-25-2015	Al-Ali	
	760	9,113,832	08-25-2015	Al-Ali	
	761	9,119,595	09-01-2015	Lamego	
	762	9,131,881	09-15-2015	Diab et al.	
	763	9,131,882	09-15-2015	Al-Ali et al.	
	764	9,131,883	09-15-2015	Al-Ali	
	765	9,131,917	09-15-2015	Telfort et al.	
	766	9,138,180	09-22-2015	Coverston et al.	
	767	9,138,182	09-22-2015	Al-Ali et al.	
	768	9,138,192	09-22-2015	Weber et al.	
	769	9,142,117	09-22-2015	Muhsin et al.	
	770	9,153,112	10-06-2015	Kiani et al.	
	771	9,153,121	10-06-2015	Kiani et al.	
	772	9,161,696	10-20-2015	Al- Ali et al.	
	773	9,161,713	10-20-2015	Al-Ali et al.	
	774	9,167,995	10-27-2015	Lamego et al.	
	775	9,176,141	11-03-2015	Al-Ali et al.	
	776	9,186,102	11-17-2015	Bruinsma et al.	
	777	9,192,312	11-24-2015	Al-Ali	
	778	9,192,329	11-24-2015	Al-Ali	
	779	9,192,351	11-24-2015	Telfort et al.	
	780	9,195,385	11-24-2015	Al-Ali et al.	
	781	9,211,072	12-15-2015	Kiani	
	782	9,211,095	12-15-2015	Al-Ali	
	783	9,218,454	12-22-2015	Kiani et al.	

Examiner Signature	Date Considered

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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 28 OF 45	Attorney Docket No.	MASIMO.317C9

			U.S. PATENT	DOCUMENTS	
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	784	9,226,696	01-05-2016	Kiani	
	785	9,241,662	01-26-2016	Al-Ali et al.	
	786	9,245,668	01-26-2016	Vo et al.	
	787	9,259,185	02-16-2016	Abdul-Hafiz et al.	
	788	9,262,586	02-16-2016	Steiger et al.	
	789	9,267,572	02-23-2016	Barker et al.	
	790	9,277,880	03-08-2016	Poeze et al.	
	791	9,289,167	03-22-2016	Diab et al.	
	792	9,295,421	03-29-2016	Kiani et al.	
	793	9,307,928	04-12-2016	Al-Ali et al.	
	794	9,323,894	04-26-2016	Kiani	
	795	9,326,712	05-03-2016	Kiani	
	796	9,333,316	05-10-2016	Kiani	
	797	9,339,220	05-17-2016	Lamego et al.	
	798	9,341,565	05-17-2016	Lamego et al.	
	799	9,351,673	05-31-2016	Diab et al.	
	800	9,351,675	05-31-2016	Al-Ali et al.	
	801	9,364,181	06-14-2016	Kiani et al.	
	802	9,368,671	06-14-2016	Wojtczuk et al.	
	803	9,370,325	06-21-2016	Al-Ali et al.	
	804	9,370,326	06-21-2016	McHale et al.	
	805	9,370,335	06-21-2016	Al-ali et al.	
	806	9,375,185	06-28-2016	Ali et al.	
	807	9,386,953	07-12-2016	Al-Ali	
	808	9,386,961	07-12-2016	Al-Ali et al.	
	809	9,392,945	07-19-2016	Al-Ali et al.	
	810	9,397,448	07-19-2016	Al-Ali et al.	
	811	9,436,645	09-06-2016	Al-Ali et al.	
	812	9,529,762	12-27-2016	Gisler et al.	

Examiner Signature Date Considered

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T¹ - Place a check mark in this area when an English language Translation is attached. ALL REFERENCES CONSIDERED EX**[39**]T WHERE LINED THROUGH. /E.F.W/

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 29 OF 45	Attorney Docket No.	MASIMO.317C9

Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	813	2001/0011355	08-02-2001	Kawai	
	814	2001/0031922	10-18-2001	Weng et al.	
	815	2001/0046366	11-26-2001	Susskind	
	816	2002/0045836	04-18-2002	Alkawwas	
	817	2002/0052311	05-02-2002	Solomon et al.	
	818	2002/0063690	05-30-2002	Chung et al.	
	819	2002/0140675	10-03-2002	Ali et al.	
	820	2002/0177758	11-28-2002	Schoenberg	
	821	2002/0198445	12-26-2002	Dominguez et al.	
	822	2003/0027326	02-06-2003	Ulmsten et al.	
	823	2003/0052787	03-20-2003	Zerhusen et al.	
	824	2003/0058838	03-27-2003	Wengrovitz	
	825	2003/0158466	08-21-2003	Lynn et al.	
	826	2003/0216670	11-20-2003	Beggs	
	827	2004/0013647	01-22-2004	Solomon et al.	
	828	2004/0122787	06-24-2004	Avinash et al.	
	829	2004/0126007	07-01-2004	Ziel et al.	
	830	2004/0139571	07-22-2004	Chang et al.	
	831	2004/0147818	07-29-2004	Levy et al.	
	832	2004/0186357	09-23-2004	Soderberg et al.	
	833	2004/0230118	11-18-2004	Shehada et al.	
	834	2004/0230132	11-18-2004	Shehada et al.	
	835	2004/0230179	11-18-2004	Shehada et al.	
	836	2004/0243017	12-02-2004	Causevic	
	837	2004/0249670	12-09-2004	Noguchi et al.	
	838	2004/0254431	12-16-2004	Shehada et al.	
	839	2004/0254432	12-16-2004	Shehada et al.	
	840	2004/0267103	12-30-2004	Li et al.	
	841	2005/0020918	01-27-2005	Wilk et al.	

Examiner Signature	Date Considered		

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

T¹ - Place a check mark in this area when an English language Translation is attached.

ALL REFERENCES CONSIDERED EX DOT WHERE LINED THROUGH. /E.F.W/

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI AFFEIGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 30 OF 45	Attorney Docket No.	MASIMO.317C9

	U.S. PATENT DOCUMENTS						
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear		
	842	2005/0038332	02-17-2005	Saidara et al.			
	843	2005/0038680	02-17-2005	McMahon			
	844	2005/0080336	04-14-2005	Byrd et al.			
	845	2005/0096542	05-05-2005	Weng et al.			
	846	2005/0113653	05-26-2005	Fox et al.			
	847	2005/0124864	06-09-2005	Mack et al.			
	848	2005/0125256	06-09-2005	Schoenberg			
	849	2005/0164933	07-28-2005	Tymianski et al.			
	850	2005/0191294	09-01-2005	Arap et al.			
	851	2005/0268401	12-08-2005	Dixon et al.			
	852	2005/0277872	12-15-2005	Colby, Jr. et al.			
	853	2006/0049936	03-09-2006	Collins, Jr. et al.			
	854	2006/0058647	03-16-2006	Strommer et al.			
	855	2006/0089543	04-27-2006	Kim et al.			
	856	2006/0094936	05-04-2006	Russ			
	857	2006/0149393	07-06-2006	Calderon			
	858	2006/0155175	07-13-2006	Ogino et al.			
	859	2006/0217684	09-28-2006	Shehada et al.			
	860	2006/0217685	09-28-2006	Shehada et al.			
	861	2006/0224413	10-05-2006	Kim et al.			
	862	2006/0235300	10-19-2006	Weng et al.			
	863	2006/0253042	11-09-2006	Stahmann et al.			
	864	2007/0000490	01-04-2007	DeVries et al.			
	865	2007/0002533	01-04-2007	Kogan et al.			
	866	2007/0021675	01-25-2007	Childre et al.			
	867	2007/0027368	02-01-2007	Collins et al.			
	868	2007/0032733	02-08-2007	Burton et al.			
	869	2007/0055116	03-08-2007	Clark et al.			
	870	2007/0055544	03-08-2007	Jung et al.			

Examiner Signature Date Considered

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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI AFFEIGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 31 OF 45	Attorney Docket No.	MASIMO.317C9

			U.S. PATENT	DOCUMENTS	
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	871	2007/0060798	03-15-2007	Krupnik et al.	
	872	2007/0088406	04-19-2007	Bennett et al.	
	873	2007/0096897	05-03-2007	Weiner Herbert S	
	874	2007/0100222	05-03-2007	Mastrototaro et al.	
	875	2007/0118399	05-24-2007	Avinash et al.	
	876	2007/0140475	06-21-2007	Kurtock et al.	
	877	2007/0156033	07-05-2007	Causey et al.	
	878	2007/0157285	07-05-2007	Frank et al.	
	879	2007/0159332	07-12-2007	Koblasz	
	880	2007/0163589	07-19-2007	DeVries et al.	
	881	2007/0185390	08-09-2007	Perkins et al.	
	882	2007/0232941	10-04-2007	Rabinovich	
	883	2007/0244724	10-18-2007	Pendergast et al.	
	884	2007/0254593	11-01-2007	Jollota et al.	
	885	2007/0255114	11-01-2007	Ackermann et al.	
	886	2007/0255116	11-01-2007	Mehta et al.	
	887	2007/0255250	11-01-2007	Moberg Sheldon B	
	888	2007/0282478	12-06-2007	Al-Ali et al.	
	889	2008/0000479	01-03-2008	Elaz et al.	
	890	2008/0003200	01-03-2008	Arap et al.	
	891	2008/0021854	01-24-2008	Jung et al.	
	892	2008/0033661	02-07-2008	Syroid et al.	
	893	2008/0039701	02-14-2008	Ali et al.	
	894	2008/0053438	03-06-2008	DeVries et al.	
	895	2008/0058657	03-06-2008	Schwartz et al.	
	896	2008/0090626	04-17-2008	Griffin et al.	
	897	2008/0091089	04-17-2008	Guillory et al.	
	898	2008/0091090	04-17-2008	Guillory et al.	
	899	2008/0091471	04-17-2008	Michon et al.	

Examiner Signature	Date Considered

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

T¹ - Place a check mark in this area when an English language Translation is attached. ALL REFERENCES CONSIDERED EX**192**T WHERE LINED THROUGH. /E.F.W/

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI AFFEIGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 32 OF 45	Attorney Docket No.	MASIMO.317C9

	U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	
	900	2008/0097167	04-24-2008	Yudkovitch et al.		
	901	2008/0099366	05-01-2008	Niemiec et al.		
	902	2008/0119412	05-22-2008	Tymianski et al.		
	903	2008/0138278	06-12-2008	Scherz et al.		
	904	2008/0169922	07-17-2008	Issokson		
	905	2008/0171919	07-01-2008	Stivoric et al.		
	906	2008/0188795	08-07-2008	Katz et al.		
	907	2008/0194918	08-14-2008	Kulik et al.		
	908	2008/0208912	08-28-2008	Garibaldi		
	909	2008/0221396	09-11-2008	Garces et al.		
	910	2008/0228077	09-18-2008	Wilk et al.		
	911	2008/0275309	11-06-2008	Stivoric et al.		
	912	2008/0281167	11-13-2008	Soderberg et al.		
	913	2008/0281168	11-13-2008	Gibson et al.		
	914	2008/0281181	11-13-2008	Manzione et al.		
	915	2008/0287751	11-01-2008	Stivoric et al.		
	916	2008/0292172	11-27-2008	Assmann et al.		
	917	2008/0300020	12-04-2008	Nishizawa et al.		
	918	2008/0319275	12-25-2008	Chiu et al.		
	919	2008/0319354	12-25-2008	Bell et al.		
	920	2009/0005651	01-01-2009	Ward et al.		
	921	2009/0018808	01-15-2009	Bronstein et al.		
	922	2009/0024008	01-22-2009	Brunner et al.		
	923	2009/0043172	02-12-2009	Zagorchev et al.		
	924	2009/0052623	02-26-2009	Tome et al.		
	925	2009/0054735	02-26-2009	Higgins et al.		
	926	2009/0062682	03-05-2009	Bland et al.		
	927	2009/0069642	03-12-2009	Gao et al.		
	928	2009/0099480	04-16-2009	Salgo et al.		

Examiner Signature	Date Considered

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

T¹ - Place a check mark in this area when an English language Translation is attached. ALL REFERENCES CONSIDERED EXCONT WHERE LINED THROUGH. /E.F.W/

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI AFFEIGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 33 OF 45	Attorney Docket No.	MASIMO.317C9

		Document Number	U.S. PATENT Publication		Pages, Columns, Lines Where
Examiner Initials	Cite No.	Number - Kind Code (if known) Example: 1,234,567 B1	Date MM-DD-YYYY	Name	Relevant Figures Appear
	929	2009/0119330	05-01-2009	Sampath et al.	
	930	2009/0119843	05-14-2009	Rodgers et al.	
	931	2009/0124867	05-14-2009	Hirsch et al.	
	932	2009/0131759	05-21-2009	Sims et al.	
	933	2009/0143832	06-04-2009	Saba	
	934	2009/0157058	06-18-2009	Ferren et al.	
	935	2009/0171170	07-02-2009	Li et al.	
	936	2009/0171225	07-02-2009	Gadodia et al.	
	937	2009/0177090	07-09-2009	Grunwald et al.	
	938	2009/0182287	07-16-2009	Kassab	
	939	2009/0226372	09-10-2009	Ruoslahti et al.	
	940	2009/0247984	10-01-2009	Lamego et al.	
	941	2009/0264778	10-22-2009	Markowitz et al.	
	942	2009/0275813	11-05-2009	Davis	
	943	2009/0275844	11-05-2009	Al-Ali	
	944	2009/0281462	11-12-2009	Heliot et al.	
	945	2009/0299157	12-03-2009	Telfort et al.	
	946	2009/0309755	12-17-2009	Williamson er al.	
	947	2009/0322540	12-31-2009	Richardson et al.	
	948	2010/0004518	01-07-2010	Vo et al.	
	949	2010/0030040	02-04-2010	Poeze et al.	
	950	2010/0030094	02-04-2010	Lundback	
	951	2010/0036209	02-11-2010	Ferren et al.	
	952	2010/0069725	03-18-2010	Al-Ali	
	953	2010/0125217	05-20-2010	Kuo et al.	
	954	2010/0144627	06-10-2010	Vitek et al.	
	955	2010/0185101	07-22-2010		
	956	2010/0198622	08-05-2010	Gajic et al.	
	957	2010/0210958	08-19-2010	Manwaring et al.	

Examiner Signature	Date Considered	

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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI AFFEIGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 34 OF 45	Attorney Docket No.	MASIMO.317C9

	U.S. PATENT DOCUMENTS									
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear					
	958	2010/0298659	11-25-2010	McCombie et al.						
	959	2010/0298660	11-25-2010	McCombie et al.						
	960	2010/0298661	11-25-2010	McCombie et al.						
	961	2010/0298742	11-25-2010	Perlman et al.						
	962	2010/0305412	12-02-2010	Darrah et al.						
	963	2010/0312103	12-09-2010	Gorek et al.						
	964	2010/0317936	12-16-2010	Al-Ali et al.						
	965	2010/0317951	12-16-2010	Rutkowski et al.						
	966	2011/0021930	01-27-2011	Mazzeo et al.						
	967	2011/0023130	01-27-2011	Gudgel et al.						
	968	2011/0028809	02-03-2011	Goodman						
	969	2011/0046495	02-24-2011	Osypka						
	970	2011/0066051	03-17-2011	Moon et al.						
	971	2011/0077473	03-31-2011	Lisogurski						
	972	2011/0078596	03-31-2011	Rawlins et al.						
	973	2011/0080294	04-07-2011	Tanishima et al.						
	974	2011/0082711	04-07-2011	Poeze et al.						
	975	2011/0087083	04-14-2011	Poeze et al.						
	976	2011/0087084	04-14-2011	Jeong et al.						
	977	2011/0087117	04-14-2011	Tremper et al.						
	978	2011/0087756	04-14-2011	Biondi James W						
	979	2011/0098583	04-28-2011	Pandia et al.						
	980	2011/0105854	05-05-2011	Kiani et al.						
	981	2011/0105956	05-05-2011	Hirth						
	982	2011/0118573	05-19-2011	Mckenna						
	983	2011/0125060	05-26-2011	Telfort et al.						
	984	2011/0152629	06-23-2011	Eaton et al.						
	985	2011/0172967	07-14-2011	Al-Ali et al.						
	986	2011/0184252	07-28-2011	Archer et al.						

Examiner Signature	Date Considered

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

T¹ - Place a check mark in this area when an English language Translation is attached. ALL REFERENCES CONSIDERED EX**195**T WHERE LINED THROUGH. /E.F.W/

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT BT ATTEIOANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 35 OF 45	Attorney Docket No.	MASIMO.317C9

	1	1	U.S. PATENT	DOCUMENTS		
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	
	987	2011/0184253	07-28-2011	Archer et al.		
	988	2011/0208015	08-25-2011	Welch et al.		
	989	2011/0208018	08-25-2011	Kiani		
	990	2011/0208073	08-25-2011	Matsukawa et al.		
	991	2011/0209915	09-01-2011	Telfort et al.		
	992	2011/0212090	09-01-2011	Pedersen et al.		
	993	2011/0213212	09-01-2011	Al-Ali		
	994	2011/0227739	09-22-2011	Gilham et al.		
	995	2011/0230733	09-22-2011	Al-Ali		
	996	2011/0237911	09-29-2011	Lamego et al.		
	997	2011/0237969	09-29-2011	Eckerbom et al.		
	998	2011/0257544	10-20-2011	Kaasinenet al.		
	999	2011/0288383	11-24-2011	Diab		
	1000	2011/0295094	12-01-2011	Doyle et al.		
	1001	2011/0301444	12-08-2011	Al-Ali		
	1002	2012/0004579	01-05-2012	Luo et al.		
	1003	2012/0029300	02-02-2012	Paquet		
	1004	2012/0029879	02-02-2012	Sing et al.		
	1005	2012/0041316	02-16-2012	Al-Ali et al.		
	1006	2012/0046557	02-23-2012	Kiani		
	1007	2012/0059230	03-08-2012	Teller et al.		
	1008	2012/0059267	03-01-2012	Lamego et al.		
	1009	2012/0071771	03-22-2012	Behar		
	1010	2012/0075464	03-29-2012	Derenne et al.		
	1011	2012/0088984	04-12-2012	Al-Ali et al.		
	1012	2012/0095778	04-19-2012	Gross et al.		
	1013	2012/0101353	04-26-2012	Reggiardo et al.		
	1014	2012/0116175	05-10-2012	Al-Ali et al.		
	1015	2012/0123799	05-17-2012	Nolen et al.		

	Examiner S	Signature						Date Considered
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*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI AFFEIGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 36 OF 45	Attorney Docket No.	MASIMO.317C9

U.S. PATENT DOCUMENTS									
Examiner Initials	Cite No. No. Document Number Number - Kind Code (if known) Example: 1,234,567 B1		Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear				
	1016	2012/0136221	05-31-2012	Killen et al.					
	1017	2012/0165629	06-28-2012	Merritt et al.					
	1018	2012/0179006	07-12-2012	Jansen et al.					
	1019	2012/0184120	07-19-2012	Basta et al.					
	1020	2012/0197619	08-02-2012	Namer Yelin et al.					
	1021	2012/0203078	08-09-2012	Sze et al.					
	1022	2012/0209082	08-01-2012	Al-Ali					
	1023	2012/0209084	08-01-2012	Olsen et al.					
	1024	2012/0226160	09-06-2012	Kudoh					
	1025	2012/0227739	09-01-2012	Kiani					
	1026	2012/0239434	09-20-2012	Breslow et al.					
	1027	2012/0242501	09-27-2012	Tran et al.					
	1028	2012/0265039	10-01-2012	Kiani					
	1029	2012/0282583	11-08-2012	Thaler et al.					
	1030	2012/0283524	11-01-2012	Kiani et al.					
	1031	2012/0284053	11-08-2012	Rosenfeld					
	1032	2012/0286955	11-01-2012	Welch et al.					
	1033	2012/0294801	11-22-2012	Scherz et al.					
	1034	2012/0296178	11-01-2012	Lamego et al.					
	1035	2012/0302894	11-01-2012	Diab et al.					
	1036	2012/0303476	11-29-2012	Krzyzanowski et al.					
	1037	2012/0319816	12-01-2012	Al-Ali					
	1038	2012/0330112	12-01-2012	Lamego et al.					
	1039	2013/0006131	01-03-2013	Narayan et al.					
	1040	2013/0006151	01-03-2013	Main et al.					
	1041	2013/0023775	01-01-2013	Lamego et al.					
	1042	2013/0035603	02-07-2013	Jarausch et al.					
	1043	2013/0041591	02-14-2013	Lamego					
	1044	2013/0046197	02-21-2013	Dlugos, Jr. et al.					

Examiner Signature		Date Considered	

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI AFFEIGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 37 OF 45	Attorney Docket No.	MASIMO.317C9

		Document Number	U.S. PATENT Publication		Pages, Columns, Lines Where	
Examiner Initials	Cite No.	Number - Kind Code (if known) Example: 1,234,567 B1		Name	Relevant Passages or Relevant Figures Appear	
	1045	2013/0046204	02-01-2013	Lamego et al.		
	1046	2013/0060108	03-01-2013	Schurman et al.		
	1047	2013/0060147	03-01-2013	Welch et al.		
	1048	2013/0079610	03-01-2013	Al-Ali		
	1049	2013/0092805	04-18-2013	Funk et al.		
	1050	2013/0096405	04-01-2013	Garfio		
	1051	2013/0096936	04-01-2013	Sampath et al.		
	1052	2013/0109929	05-02-2013	Menzel		
	1053	2013/0109935	05-01-2013	Al-Ali et al.		
	1054	2013/0123616	05-16-2013	Merritt et al.		
	1055	2013/0162433	06-01-2013	Muhsin et al.		
	1056	2013/0178749	07-01-2013	Lamego		
	1057	2013/0190581	07-01-2013	Al-Ali et al.		
	1058	2013/0197328	08-01-2013	Diab et al.		
	1059	2013/0197364	08-01-2013	Han		
	1060	2013/0211214	08-01-2013	Olsen		
	1061	2013/0243021	09-01-2013	Siskavich		
	1062	2013/0253334	09-26-2013	Al-Ali et al.		
	1063	2013/0261494	10-03-2013	Bloom et al.		
	1064	2013/0267804	10-10-2013	Al-Ali		
	1065	2013/0274571	10-01-2013	Diab et al.		
	1066	2013/0274572	10-17-2013	Al-Ali et al.		
	1067	2013/0279109	10-24-2013	Lindblad et al.		
	1068	2013/0296672	11-01-2013	O'Neil et al.		
	1069	2013/0296713	11-07-2013	Al-Ali et al.		
	1070	2013/0317327	11-01-2013	Al-Ali et al.		
	1071	2013/0317370	11-01-2013	Dalvi et al.		
	1072	2013/0317393	11-28-2013	Weiss et al.		
	1073	2013/0324804	12-05-2013	McKeown et al.		

Examiner Signature	Date Considered		
*Examiner: Initial if reference considered, whether or not citation is in conform	ance with MPEP 609 Draw line through citation if not		

***Examiner:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. **T**¹ - Place a check mark in this area when an English language Translation is attached.

ALL REFERENCES CONSIDERED EX 98 T WHERE LINED THROUGH. /E.F.W/

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI AFFEIGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 38 OF 45	Attorney Docket No.	MASIMO.317C9

Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	1074	2013/0324808	12-01-2013	Al-Ali et al.	
	1075	2013/0324817	12-01-2013	Diab	
	1076	2013/0331660	12-12-2013	Al-Ali et al.	
	1077	2013/0331670	12-01-2013	Kiani	
	1078	2013/0338461	12-01-2013	Lamego et al.	
	1079	2013/0340176	12-26-2013	Stevens et al.	
	1080	2014/0012100	01-01-2014	Al-Ali et al.	
	1081	2014/0022081	01-23-2014	Ribble et al.	
	1082	2014/0025306	01-01-2014	Weber et al.	
	1083	2014/0031650	01-01-2014	Weber et al.	
	1084	2014/0034353	02-01-2014	Al-Ali et al.	
	1085	2014/0046674	02-13-2014	Rosenfeld	
	1086	2014/0051952	02-01-2014	Reichgott et al.	
	1087	2014/0051953	02-01-2014	Lamego et al.	
	1088	2014/0051954	02-01-2014	Al-Ali et al.	
	1089	2014/0058230	02-01-2014	Abdul-Hafiz et al.	
	1090	2014/0066783	03-01-2014	Kiani et al.	
	1091	2014/0073167	03-01-2014	Al-Ali et al.	
	1092	2014/0077956	03-01-2014	Sampath et al.	
	1093	2014/0081097	03-01-2014	Al-Ali et al.	
	1094	2014/0081100	03-01-2014	Muhsin et al.	
	1095	2014/0081175	03-01-2014	Telfort	
	1096	2014/0094667	04-01-2014	Schurman et al.	
	1097	2014/0100434	04-01-2014	Diab et al.	
	1098	2014/0114199	04-01-2014	Lamego et al.	
	1099	2014/0120564	05-01-2014	Workman et al.	
	1100	2014/0121482	05-01-2014	Merritt et al.	
	1101	2014/0121483	05-01-2014	Kiani	
	1102	2014/0127137	05-01-2014	Bellott et al.	

Examiner Signature				Date Considered		

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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI AFFEIGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 39 OF 45	Attorney Docket No.	MASIMO.317C9

	U.S. PATENT DOCUMENTS						
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear		
	1103	2014/0128696	05-01-2014	Al-Ali			
	1104	2014/0128699	05-01-2014	Al-Ali et al.			
	1105	2014/0129702	05-01-2014	Lamego et al.			
	1106	2014/0135588	05-15-2014	Al-Ali et al.			
	1107	2014/0142399	05-01-2014	Al-Ali et al.			
	1108	2014/0142401	05-01-2014	Al-Ali et al.			
	1109	2014/0142402	05-01-2014	Al-Ali et al.			
	1110	2014/0152673	06-05-2014	Lynn et al.			
	1111	2014/0155712	06-01-2014	Lamego et al.			
	1112	2014/0163344	06-12-2014	Al-Ali			
	1113	2014/0163402	06-12-2014	Lamego et al.			
	1114	2014/0166076	06-19-2014	Kiani et al.			
	1115	2014/0171763	06-19-2014	Diab			
	1116	2014/0180038	06-26-2014	Kiani			
	1117	2014/0180154	06-26-2014	Sierra et al.			
	1118	2014/0180160	06-26-2014	Brown et al.			
	1119	2014/0187973	07-03-2014	Brown et al.			
	1120	2014/0188516	07-03-2014	Kamen			
	1121	2014/0194709	07-10-2014	Al-Ali et al.			
	1122	2014/0194711	07-10-2014	Al-Ali			
	1123	2014/0194766	07-10-2014	Al-Ali et al.			
	1124	2014/0200422	07-17-2014	Weber et al.			
	1125	2014/0206963	07-24-2014	Al-Ali			
	1126	2014/0213864	07-31-2014	Abdul-Hafiz et al.			
	1127	2014/0243627	08-28-2014	Diab et al.			
	1128	2014/0257057	09-11-2014	Reis Cunha et al.			
	1129	2014/0266787	09-18-2014	Tran			
	1130	2014/0266790	09-18-2014	Al-Ali et al.			
	1131	2014/0275808	09-18-2014	Poeze et al.			

Examiner Signature	Date Considered

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

T¹ - Place a check mark in this area when an English language Translation is attached. ALL REFERENCES CONSIDERED EX2000 T WHERE LINED THROUGH. /E.F.W/

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI AFFEIGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 40 OF 45	Attorney Docket No.	MASIMO.317C9

	U.S. PATENT DOCUMENTS						
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear		
	1132	2014/0275835	09-18-2014	Lamego et al.			
	1133	2014/0275871	09-18-2014	Lamego et al.			
	1134	2014/0275872	09-18-2014	Merritt et al.			
	1135	2014/0275881	09-18-2014	Lamego et al.			
	1136	2014/0276115	09-18-2014	Dalvi et al.			
	1137	2014/0288400	09-25-2014	Diab et al.			
	1138	2014/0296664	10-02-2014	Bruinsma et al.			
	1139	2014/0303520	10-09-2014	Telfort et al.			
	1140	2014/0309506	10-16-2014	Lamego et al.			
	1141	2014/0309559	10-16-2014	Telfort et al.			
	1142	2014/0316217	10-23-2014	Purdon et al.			
	1143	2014/0316218	10-23-2014	Purdon et al.			
	1144	2014/0316228	10-23-2014	Blank et al.			
	1145	2014/0323825	10-30-2014	Al-Ali et al.			
	1146	2014/0323897	10-30-2014	Brown et al.			
	1147	2014/0323898	10-30-2014	Purdon et al.			
	1148	2014/0330092	11-16-2014	Al-Ali et al.			
	1149	2014/0330098	11-06-2014	Merritt et al.			
	1150	2014/0330099	11-06-2014	Al-Ali et al.			
	1151	2014/0333440	11-13-2014	Kiani			
	1152	2014/0336481	11-13-2014	Shakespeare et al.			
	1153	2014/0343436	11-20-2014	Kiani			
	1154	2014/0343889	11-20-2014	Ben Shalom et al.			
	1155	2014/0357966	12-04-2014	Al-Ali et al.			
	1156	2014/0371548	12-18-2014	Al-Ali et al.			
	1157	2014/0371632	12-18-2014	Al-Ali et al.			
	1158	2014/0378784	12-25-2014	Kiani et al.			
	1159	2015/0005600	01-01-2015	Blank et al.			
	1160	2015/0011907	01-08-2015	Purdon et al.			

Examiner Signature	Date Considered		
* F			

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

T¹ - Place a check mark in this area when an English language Translation is attached. ALL REFERENCES CONSIDERED EX20:PT WHERE LINED THROUGH. /E.F.W/

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI AFFEIGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 41 OF 45	Attorney Docket No.	MASIMO.317C9

	U.S. PATENT DOCUMENTS						
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear		
	1161	2015/0012231	01-08-2015	Poeze et al.			
	1162	2015/0018650	01-15-2015	Al-Ali et al.			
	1163	2015/0025406	01-22-2015	Al-Ali			
	1164	2015/0032029	01-29-2015	Al-Ali et al.			
	1165	2015/0038859	02-05-2015	Dalvi et al.			
	1166	2015/0045637	02-12-2015	Dalvi			
	1167	2015/0051462	02-19-2015	Olsen			
	1168	2015/0080754	03-19-2015	Purdon et al.			
	1169	2015/0087936	03-26-2015	Al-Ali et al.			
	1170	2015/0094546	04-02-2015	Al-Ali			
	1171	2015/0094618	04-02-2015	Russell et al.			
	1172	2015/0097701	04-09-2015	Al-Ali et al.			
	1173	2015/0099950	04-09-2015	Al-Ali et al.			
	1174	2015/0099951	04-09-2015	Al-Ali et al.			
	1175	2015/0099955	04-09-2015	Al-Ali et al.			
	1176	2015/0101844	04-16-2015	Al-Ali et al.			
	1177	2015/0106121	04-16-2015	Muhsin et al.			
	1178	2015/0112151	04-23-2015	Muhsin et al.			
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	1180	2015/0126830	05-07-2015	Schurman et al.			
	1181	2015/0133755	05-14-2015	Smith et al.			
	1182	2015/0140863	05-21-2015	Al-Ali et al.			
	1183	2015/0141781	05-21-2015	Weber et al.			
	1184	2015/0165312	06-18-2015	Kiani			
	1185	2015/0196237	07-16-2015	Lamego			
	1186	2015/0201874	07-23-2015	Diab			
	1187	2015/0208966	07-30-2015	Al-Ali			
	1188	2015/0216459	08-06-2015	Al-Ali et al.			
	1189	2015/0230755	08-20-2015	Al-Ali et al.			

Examiner Signature Date Considered

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

T¹ - Place a check mark in this area when an English language Translation is attached. ALL REFERENCES CONSIDERED EX202 WHERE LINED THROUGH. /E.F.W/

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI AFFEIGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 42 OF 45	Attorney Docket No.	MASIMO.317C9

			U.S. PATENT	DOCUMENTS	
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	1190	2015/0238722	08-27-2015	Al-Ali	
	1191	2015/0245773	09-03-2015	Lamego et al.	
	1192	2015/0245794	09-03-2015	Al-Ali	
	1193	2015/0257689	09-17-2015	Al-Ali et al.	
	1194	2015/0272514	10-01-2015	Kiani et al.	
	1195	2015/0351697	12-10-2015	Weber et al.	
	1196	2015/0351704	12-10-2015	Kiani et al.	
	1197	2015/0359429	12-17-2015	Al-Ali et al.	
	1198	2015/0366472	12-24-2015	Kiani	
	1199	2015/0366507	12-24-2015	Blank	
	1200	2015/0374298	12-31-2015	Al-Ali et al.	
	1201	2015/0380875	12-31-2015	Coverston et al.	
	1202	2016/0000362	01-07-2016	Diab et al.	
	1203	2016/0007930	01-14-2016	Weber et al.	
	1204	2016/0029932	02-04-2016	Al-Ali	
	1205	2016/0029933	02-04-2016	Al-Ali et al.	
	1206	2016/0045118	02-18-2016	Kiani	
	1207	2016/0051205	02-25-2016	Al-Ali et al.	
	1208	2016/0058338	03-03-2016	Schurman et al.	
	1209	2016/0058347	03-03-2016	Reichgott et al.	
	1210	2016/0066823	03-10-2016	Al-Ali et al.	
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	1216	2016/0095543	04-07-2016	Telfort et al.	
	1217	2016/0095548	04-07-2016	Al-Ali et al.	
	1218	2016/0103598	04-14-2016	Al-Ali et al.	

Examiner Signature Date Considered

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

T¹ - Place a check mark in this area when an English language Translation is attached. ALL REFERENCES CONSIDERED EX203 WHERE LINED THROUGH. /E.F.W/

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI AFFEIGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 43 OF 45	Attorney Docket No.	MASIMO.317C9

	U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	
	1219	2016/0113527	04-28-2016	Al-Ali		
	1220	2016/0143548	05-26-2016	Al-Ali		
	1221	2016/0166183	06-16-2016	Poeze et al.		
	1222	2016/0166188	06-16-2016	Bruinsma et al.		
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	1226	2016/0197436	07-07-2016	Barker et al.		
	1227	2016/0213281	07-28-2016	Eckerbom et al.		
	1228	2016/0324486	11-10-2016	Al-Ali et al.		
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	1230	2016/0328528	11-10-2016	Al-Ali et al.		

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Examiner Initials	Cite No.	Foreign Patent Document Country Code-Number-Kind Code Example: JP 1234567 A1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T ¹
	1231	EP 0 735 499	10-02-1996	Siemens Medical Systems, Inc.		
	1232	EP 2 335 569	06-22-2011	Kiani		
	1233	EP 2 766 834	08-20-2014	Masimo Corporation		Eq.
	1234	EP 2 811 894	12-17-2014	Masimo Corporation		Eq.
	1235	JP 10-336064	12-18-1998	Hitachi Denshi Ltd.		Х
	1236	JP 2002-165764	06-11-2002	Misaki KK		X-Abs
	1237	JP 2002-172096	06-18-2002	GE Marquette Medical Systems, Inc.		X-Abs
	1238	JP 2005-218036	08-11-2005	Fuji Xerox Co Ltd		X-Abs
	1239	JP 2005-295375	10-20-2005	Omron Corp		X-Abs
	1240	JP 2007-021213	02-01-2007	Siemens Medical Solutions USA, Inc.		X-Abs
	1241	JP 2007-095365	04-12-2007	Denso Wave Inc.		X-Abs
	1242	JP 2007-174051	07-05-2007	Fujifilm Corp		X-Abs

Examiner Signature	Date Considered
* Examiner: Initial if reference considered, whether or not citation is in conform in conform in conformance and not considered. Include copy of this form with next commu	8

T¹ - Place a check mark in this area when an English language Translation is attached. ALL REFERENCES CONSIDERED EX2014 WHERE LINED THROUGH. /E.F.W/

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI AFFEIGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 44 OF 45	Attorney Docket No.	MASIMO.317C9

			FOREIGN PAT	ENT DOCUMENTS		
Examiner Initials	Cite No.	Foreign Patent Document Country Code-Number-Kind Code Example: JP 1234567 A1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T1
	1243	JP 2008-541045	11-20-2008	Home Diagnostics Inc.		X-Abs
	1244	JP 2009-017959	01-29-2009	Fukuda Denshi Co., Ltd.		Х
	1245	JP 2009-207836	09-17-2009	Nippon Koden Corp.		X-Abs
	1246	JP 2010-503134	01-28-2010	Apple Inc.		X-Abs
	1247	JP 2010-524510	07-22-2010	Koninklijke Philips Electronics N.V.		Х
	1248	JP 2011-152261	08-11-2011	Nippon Koden Corp.		X-Abs
	1249	JP 2011-519607	07-14-2011	Masimo Corporation		X-Abs
	1250	JP 2014-533997	12-18-2014	Masimo Corporation		Х
	1251	WO 98/029790	07-09-1998	IMD Soft Ltd.		
	1252	WO 99/013766	03-25-1999	Kinetic Concepts, Inc.		
	1253	WO 99/056613	11-11-1999	E. Heller & Company		
	1254	WO 00/063713	10-26-2000	The Gillette Company		
	1255	WO 2004/056266	07-08-2004	Stahmann et al.		
	1256	WO 2004/059551	07-15-2004	Stahmann et al.		
	1257	WO 2006/051461	05-18-2006	Koninklijke Philips Electronics N.V.		
	1258	WO 2011/001302	01-06-2011	Koninklijke Philips Electronics N.V.		
	1259	WO 2011/002904	Corporation			
	1260	WO 2011/025549				
	1261	WO 2013/056160	04-18-2013	Masimo Corporation		
	1262	WO 2013/119982	08-15-2013	Masimo Corporation		
	1263	WO 2015/054665	04-16-2015	Masimo Corporation		

NON PATENT LITERATURE DOCUMENTS Examiner Initials Cite No. Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. T¹ 1264 CAPUANO et al., "Remote Telemetry – New Twists for Old Technology", Nursing Management, July 1995, Vol. 26, No. 7, pp. 26-32. ELMER-DEWITT, Philip, "Apple's iWatch: The killer apps may be in hospitals, not health clubs", Fortune.com, February 3, 2014, <u>http://fortune.com/2014/02/03/apples-iwatch-the-killer-apps-may-be-in-hospitals-not-health-clubs/</u>, 4 pages.

Examiner Signature	Date Considered		
*Examiner: Initial if reference considered, whether or not citation is in conform	ance with MPEP 609. Draw line through citation if not		

in conformance and not considered. Include copy of this form with next communication to applicant. T^{1} - Place a check mark in this area when an English language Translation is attached.

ALL REFERENCES CONSIDERED EX205 WHERE LINED THROUGH. /E.F.W/

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI AFFEIGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 45 OF 45	Attorney Docket No.	MASIMO.317C9

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T1
	1266	GRUNDY et al., "Telemedicine in Critical Care: An Experiment in Health Care Delivery", JACEP, October 1977, Vol. 6, No. 10, pp. 439-444.	
	1267	GRUNDY et al., "Telemedicine in Critical Care: Problems in Design, Implementation and Assessment", July 1982, Vol. 10, No. 7, pp. 471-475	
	1268	RYSAVY, Peter, "Making the Call with Two-Way Paging", Network Computing, Published January 15, 1997, www.rysavy.com/Articles/twoway.htm , pp. 5.	
	1269	WACHTER et al., "The Employment of an Iterative Design Process to Develop a Pulmonary Graphical Display", Journal of the American Medical Informatics Association, Vol. 10, No. 4, July/August 2003, pp. 363-372.	
	1270	Official Communication in European Application No. 10195398.2 (MASIMO.584EP) dated July 5, 2012.	
	1271	Official Communication in European Application No. 10195398.2 (MASIMO.584EP) dated June 15, 2015.	
	1272	International Search Report & Written Opinion in PCT Application No. PCT/US2013/025384 (MASIMO.899WO), dated August 6, 2013.	
	1273	International Search Report & Written Opinion in PCT Application No. PCT/US2012/060109 (MASIMO.930WO), dated June 5, 2013.	
	1274	International Preliminary Report on Patentability in PCT Application No. PCT/US2012/060109 (MASIMO.930WO), dated April 24, 2014.	
	1275	International Search Report & Written Opinion in PCT Application No. PCT/US2014/060177 (MASIMO.930WO1), dated December 19, 2014.	
	1276	International Preliminary Report on Patentability & Written Opinion in PCT Application No. PCT/US2013/025384 (MASIMO.899WO), dated August 21, 2014.	
	1277	International Preliminary Report on Patentability & Written Opinion in PCT Application No. PCT/US2014/060177 (MASIMO.930WO1), dated April 21, 2016.	

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Examiner Signature /ERIC F WINAKUR/	Date Considered 06/23/2017			
*Examiner: Initial if reference considered, whether or not citation is in conform in conformance and not considered. Include copy of this form with next commu				
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T¹ - Place a check mark in this area when an English language Translation is attached. ALL REFERENCES CONSIDERED EX2006T WHERE LINED THROUGH. /E.F.W/



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

BIB DATA SHEET

CONFIRMATION NO. 3723

SERIAL NUM	BER	FILING or DAT			CLASS	GR	OUP ART	UNIT	ΑΤΤΟ	ORNEY DOCKET NO.
15/499,61	9	04/27/2			600		3735		м	ASIMO.317C9
		RUL	E							
APPLICANTS MASIMO CORPORATION, Irvine, CA;										
INVENTORS Ammar A	INVENTORS Ammar Al-Ali, San Juan Capistrano, CA;									
This appli whi whi whi whi whi whi whi	** CONTINUING DATA **********************************									
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Foreign Priority claime 35 USC 119(a-d) conc			Met af Allowa	ter	STATE OR COUNTRY		HEETS WINGS	TOT CLAI		INDEPENDENT CLAIMS
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ADDRESS										
MASIMO 2040 MAI FOURTEI IRVINE, C	KNOBBE, MARTENS, OLSON & BEAR, LLP MASIMO CORPORATION (MASIMO) 2040 MAIN STREET FOURTEENTH FLOOR IRVINE, CA 92614 UNITED STATES									
TITLE										
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	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI ALLEIOANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 1 OF 7	Attorney Docket No.	MASIMO.317C9

	U.S. PATENT DOCUMENTS							
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear			
	1	4,013,067	03-22-1977	Kresse et al.				
	2	4,773,422	09-27-1988	Isaacson et al.				
	3	5,090,410	02-25-1992	Saper et al.				
	4	5,203,342	04-20-1993	Sakai				
	5	5,392,777	02-28-1995	Swedlow et al.				
	6	5,417,222	05-23-1995	Dempsey et al.				
	7	5,490,523	02-13-1996	Isaacson et al.				
	8	5,511,553	04-30-1996	Segalowitz				
	9	5,584,296	12-17-1996	Cui et al.				
	10	5,658,316	08-19-1997	Lamond et al.				
	11	5,673,692	10-07-1997	Schulze et al.				
	12	5,746,697	05-05-1998	Swedlow et al.				
	13	5,779,631	07-14-1998	Chance				
	14	5,792,052	08-11-1998	lsaacson et al.				
	15	5,800,349	09-01-1998	Isaacson et al.				
	16	5,830,137	11-03-1998	Scharf				
	17	5,865,736	02-02-1999	Baker et al.				
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	19	5,957,854	09-28-1999	Besson et al.				
	20	6,011,985	01-04-2000	Athan et al.				
	21	6,090,056	07-18-2000	Bystrom et al.				
	22	6,154,667	11-28-2000	Miura et al.				
	23	6,178,343	01-23-2001	Bindszus et al.				
	24	6,190,327	02-20-2001	lsaacson et al.				
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	26	6,289,238	09-11-2001	Besson et al.				
	27	6,374,129	04-16-2002	Chin et al.				
	28	6,387,039	05-14-2002	Moses				
	29	6,405,083	06-11-2002	Rockwell et al.				

Examiner Signature Date Considered

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

T¹ - Place a check mark in this area when an English language Translation is attached. ALL REFERENCES CONSIDERED EX2037 WHERE LINED THROUGH. /E.F.W/

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI ALLEIOANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 2 OF 7	Attorney Docket No.	MASIMO.317C9

	U.S. PATENT DOCUMENTS								
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear				
	30	6,440,067	08-27-2002	Deluca et al.					
	31	6,454,708	09-24-2002	Ferguson et al.					
	32	6,491,647	12-10-2002	Bridger et al.					
	33	6,553,242	04-22-2003	Sarussi					
	34	6,577,893	06-10-2003	Besson et al.					
	35	6,612,984	09-02-2003	Kerr, II					
	36	6,694,160	02-17-2004	Chin					
	37	6,720,734	04-13-2004	Norris					
	38	6,731,962	05-04-2004	Katarow et al.					
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	41	7,125,382	10-24-2006	Zhou et al.					
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	45	7,486,977	02-03-2009	Sweitzer et al.					
	46	7,499,739	03-03-2009	Sweitzer et al.					
	47	7,801,605	09-21-2010	Smirles et al.					
	48	7,970,450	06-28-2011	Kroecker					
	49	8,326,392	12-04-2012	Grubac et al.					
	50	8,385,972	02-26-2013	Bochenko et al.					
	51	8,457,704	06-04-2013	Sweitzer et al.					
	52	8,467,556	06-18-2013	Shennib et al.					
	53	8,500,692	08-06-2013	Yodfat et al.					
	54	8,545,445	10-01-2013	Kamen et al.					
	55	8,564,613	10-22-2013	Prior et al.					
	56	8,568,361	10-29-2013	Yodfat et al.					
	57	8,615,281	12-24-2013	Yodfat et al.					
	58	8,641,670	02-04-2014	Yodfat et al.					

Examiner Signature Date Considered

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

T¹ - Place a check mark in this area when an English language Translation is attached. ALL REFERENCES CONSIDERED EX199T WHERE LINED THROUGH. /E.F.W/

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT BT ATTEIOANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 3 OF 7	Attorney Docket No.	MASIMO.317C9

Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
	59	8,670,810	03-11-2014	Isaacson	
	60	8,695,206	04-15-2014	lsaacson et al.	
	61	8,725,226	05-13-2014	lsaacson et al.	
	62	8,761,852	06-24-2014	Parthasarathy	
	63	8,792,950	07-29-2014	Larsen et al.	
	64	8,814,822	08-26-2014	Yodfat et al.	
	65	8,845,530	09-30-2014	Bruce et al.	
	66	8,903,467	12-02-2014	Sweitzer et al.	
	67	8,939,914	01-27-2015	Turnquist et al.	
	68	8,962,170	02-24-2015	Frey et al.	
	69	8,977,351	03-10-2015	Kivisto	
	70	9,014,778	04-21-2015	Datta et al.	
	71	9,017,355	04-28-2015	Smith et al.	
	72	9,028,407	05-12-2015	Bennett-Guerrero	
	73	9,041,529	05-26-2015	Booij et al.	
	74	9,149,228	10-06-2015	Kinast	
	75	9,173,993	11-03-2015	Yodfat et al.	
	76	9,183,738	11-10-2015	Allen, Sr. et al.	
	77	9,254,087	02-09-2016	lsaacson et al.	
	78	9,277,864	03-08-2016	Yang et al.	
	79	9,364,155	06-14-2016	Bardy et al.	
	80	9,375,179	06-28-2016	Schultz et al.	
	81	9,402,544	08-02-2016	Yee et al.	
	82	9,439,566	09-13-2016	Arne et al.	
	83	9,480,408	11-01-2016	Isaacson et al.	
	84	9,498,158	11-22-2016	Isaacson	
	85	2002/0099277	07-25-2002	Harry et al.	
	86	2002/0107436	08-08-2002	Barton	
	87	2002/0165462	11-07-2002	Westbrook et al.	

Examiner Signature Date Considered

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

T¹ - Place a check mark in this area when an English language Translation is attached. ALL REFERENCES CONSIDERED EX210 TWHERE LINED THROUGH. /E.F.W/

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT BT ATTEIOANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 4 OF 7	Attorney Docket No.	MASIMO.317C9

	U.S. PATENT DOCUMENTS								
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear				
	88	2003/0033102	02-13-2003	Dietiker					
	89	2003/0149349	08-07-2003	Jensen					
	90	2003/0181798	09-25-2003	Al-Ali					
	91	2003/0181817	09-25-2003	Mori					
	92	2003/0214408	11-20-2003	Grajales et al.					
	93	2003/0229276	12-11-2003	Sarussi et al.					
	94	2004/0000713	01-01-2004	Yamashita et al.					
	95	2004/0097797	05-20-2004	Porges					
	96	2004/0102687	05-27-2004	Brashears et al.					
	97	2004/0127775	07-01-2004	Miyazaki et al.					
	98	2004/0242976	12-02-2004	Abreu					
	99	2004/0260161	12-23-2004	Melker et al.					
	100	2005/0010087	01-13-2005	Banet et al.					
	101	2005/0038326	02-17-2005	Mathur					
	102	2005/0070773	03-31-2005	Chin et al.					
	103	2005/0070775	03-31-2005	Chin et al.					
	104	2005/0106713	05-19-2005	Phan et al.					
	105	2005/0113655	05-26-2005	Hull					
	106	2005/0119580	06-02-2005	Eveland					
	107	2005/0131288	06-16-2005	Turner et al.					
	108	2005/0197550	09-08-2005	Al-Ali et al.					
	109	2005/0228298	10-13-2005	Banet et al.					
	110	2005/0228299	10-13-2005	Banet					
	111	2005/0234317	10-20-2005	Kiani					
	112	2005/0245839	11-03-2005	Stivoric					
	113	2006/0089546	04-27-2006	Mahony et al.					
	114	2006/0106294	05-18-2006	Maser et al.					
	115	2006/0167351	07-27-2006	lsaacson et al.					
	116	2006/0276714	12-07-2006	Holt et al.					

Examiner Signature	Date Considered		
*Examiner: Initial if reference considered, whether or not citation is in conforr	mance with MPEP 609. Draw line through citation if not		

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if n in conformance and not considered. Include copy of this form with next communication to applicant.

T¹ - Place a check mark in this area when an English language Translation is attached. ALL REFERENCES CONSIDERED EX2EPT WHERE LINED THROUGH. /E.F.W/

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI ALL LICANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 5 OF 7	Attorney Docket No.	MASIMO.317C9

	U.S. PATENT DOCUMENTS							
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear			
	117	2008/0113621	05-15-2008	Parthasarathy				
	118	2008/0208009	08-28-2008	Shklarski				
	119	2008/0208023	08-28-2008	Grubac et al.				
	120	2008/0221420	09-11-2008	Grubac et al.				
	121	2008/0222251	09-11-2008	Parthasarathy				
	122	2009/0043180	02-12-2009	Tschautscher et al.				
	123	2009/0259114	10-15-2009	Johnson et al.				
	124	2009/0299675	12-03-2009	lsaacson et al.				
	125	2009/0309645	12-17-2009	Isaacson et al.				
	126	2010/0125188	05-20-2010	Schilling et al.				
	127	2010/0130840	05-27-2010	lsaacson et al.				
	128	2010/0210924	08-19-2010	Parthasarathy				
	129	2010/0309207	12-09-2010	Prior et al.				
	130	2010/0312079	12-09-2010	Larsen et al.				
	131	2010/0312080	12-09-2010	Isaacson				
	132	2011/0263203	10-27-2011	Parthasarathy				
	133	2012/0277597	11-01-2012	Eshbaugh et al.				
	134	2012/0289800	11-15-2012	Isaacson et al.				
	135	2012/0304784	12-06-2012	lsaacson et al.				
	136	2013/0310667	11-21-2013	Grubac et al.				
	137	2014/0066880	03-06-2014	Prince et al.				
	138	2014/0135602	05-15-2014	Lemke et al.				
	139	2014/0221798	08-07-2014	Isaacson				
	140	2014/0243632	08-28-2014	Ulrich et al.				
	141	2014/0275816	09-18-2014	Sandmore				
	142	2014/0275883	09-18-2014	Haisley et al.				
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	144	2014/0275932	09-18-2014	Zadig				
	145	2014/0288388	09-25-2014	Isaacson et al.				

Examiner Signature	Date Considered	
*Examiner: Initial if reference considered, whether or not citation is in conform	nance with MPEP 609. Draw line through citation if not	

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if in conformance and not considered. Include copy of this form with next communication to applicant.

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT BT ALLEGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 6 OF 7	Attorney Docket No.	MASIMO.317C9

	U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	
	146	2014/0343389	11-20-2014	Goldstein et al.		
	147	2014/0357970	12-04-2014	Larsen et al.		
	148	2014/0364705	12-11-2014	Parthasarathy et al.		
	149	2015/0031970	01-29-2015	Lain		
	150	2015/0141779	05-21-2015	Johnson et al.		
	151	2015/0141780	05-21-2015	Meyer et al.		
	152	2015/0238094	08-27-2015	Lai et al.		
	153	2015/0289814	10-15-2015	Magar et al.		
	154	2015/0374905	12-31-2015	Yodfat et al.		
	155	2016/0106914	04-21-2016	Yodfat et al.		
	156	2016/0166213	06-16-2016	Isaacson		
	157	2016/0235344	08-18-2016	Auerbach		
	158	2016/0262673	09-15-2016	Skorich et al.		
	159	2016/0359150	12-08-2016	Martin et al.		
	160	2016/0367164	12-22-2016	Felix		
	161	D615655	05-11-2010	Maser et al.		
	162	D718455	11-25-2014	Maser et al.		
	163	RE33643	07-23-1991	Isaacson et al.		
	164	RE36000	12-22-1998	Swedlow et al.		

	FOREIGN PATENT DOCUMENTS					
Examiner Initials	Cite No.	Foreign Patent Document Country Code-Number-Kind Code Example: JP 1234567 A1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T1
	165	EP 0602459	06-22-1994	Siemens Medical Systems, Inc		
	166	EP 1408823	05-12-2010	Datascope Investment Corp		
	167	JP 2001-501847	02-13-2001	Nellcor Puritan Bennett Inc		X-Abs
	168	JP 2003-275183	09-30-2003	Matsushita Electric Ind Co Ltd		X-Abs
	169	JP 2004-024551	01-29-2004	Renesas Tech Corp		X-Abs

Examiner Signature	Date Considered
*Examiner: Initial if reference considered, whether or not citation is in conform in conformance and not considered. Include copy of this form with next commu	•

T¹ - Place a check mark in this area when an English language Translation is attached. ALL REFERENCES CONSIDERED EX213 TWHERE LINED THROUGH. /E.F.W/

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT BT ALLEGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 7 OF 7	Attorney Docket No.	MASIMO.317C9

	FOREIGN PATENT DOCUMENTS					
Examiner Initials	Cite No.	Foreign Patent Document Country Code-Number-Kind Code Example: JP 1234567 A1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T1
	170	RU 2199723	02-27-2003	Masimo Corporation		X-Abs
	171	WO 1996/016591	06-06-1996	Aihonen et al.		
	172	WO 1997/000708	01-19-1997	Medtronic, Inc		
	173	WO 1998/039749	09-11-1998	Kail		
	174	WO 1998/015224	04-16-1998	Nellcor Puritan Bennett Inc		
	175	WO 2000/062665	10-26-2000	Nexan Telemed Limited		
	176	WO 2000/069328	11-23-2000	Phiscience Gmbh, Entwicklung Von Sensoren		
	177	WO 2001/041634	06-14-2001	Masimo Corporation		
	178	WO 2003/065926	08-14-2003	Irvine Sensors Corporation		
	179	WO 2005/048830	06-02-2005	Alive Technologies Pty Ltd		
	180	WO 2005/092177	10-06-2005	Bodymedia, Inc.		

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T1
	181	CRILLY et al., "An Integrated Pulse Oximeter System for Telemedicine Applications", IEEE Instrumentation and Measurement Technology Conference, Ottawa, Canada, May 19-21, 1997, in 3 pages.	
	182	"Medicine" Textbook of Anaesthesiology/Ed. By Aitkenhead A.R. et al., vol. 1, 1999, pp. 437-440.	х
	183	Dissertation thesis for an MBA class given by the inventor on Dec. 18, 2004. "Reducing Health Care Costs and Improving Patient Care with the Uni-Ox Pulse Oximeter from Snap Medical Technologies", Robert Sweitzer and Samantha Goetz, in 7 pages.	
	184	European Search Report in EP Application No. 02 748 235.5, dated 4 October 2006.	
	185	Official Communication in EP Application No. 02 748 235.5, dated July 25, 2008.	
	186	International Search Report in PCT Application No. PCT/US02/03434, dated 19 December 2002.	

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Examiner Signature /ERIC F WINAKUR/	Date Considered 06/23/2017
*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation in conformance and not considered. Include copy of this form with next communication to applicant.	

	Application/Control No.	Applicant(s)/Patent Under Reexamination
Search Notes	15499619	AL-ALI, AMMAR
	Examiner	Art Unit
	ERIC WINAKUR	3735

CPC- SEARCHED			
Symbol	Date	Examiner	
A61B5/0002	6/8/17	EFW	
A61B5/0004	6/8/17	EFW	
A61B5/0024	6/8/17	EFW	
A61B5/02	6/8/17	EFW	
A61B5/0205	6/8/17	EFW	
A61B5/0402	6/8/17	EFW	
A61B5/1455	6/8/17	EFW	
A61B5/14551	6/8/17	EFW	
A61B5/6825	6/8/17	EFW	
A61B5/6826	6/8/17	EFW	
A61B5/6831	6/8/17	EFW	
A61B5/72	6/8/17	EFW	
A61B2560/0443	6/8/17	EFW	
A61B2562/06	6/8/17	EFW	

CPC COMBINATION SETS - SEARCHED			
Symbol Date Examiner			

US CLASSIFICATION SEARCHED					
Class	Subclass	Date	Examine		

SEARCH NOTES				
Search Notes	Date	Examiner		
PALM inventor name search	6/8/17	EFW		

INTERFERENCE SEARCH

US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner											
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	Claims r	enumbered	in the s	ame o	rder as p	presented by	applica	ant		СРА	C] T.C). 🗆	R.1.47
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	Applicant	Initiated Intervi	iew Request I	form	
Application No.: 15/4996 Examiner: Winakur, Eric Fra	519 nk	First Named Applic Art Unit: ³⁷³⁵	ant: Masimo Corporatio Status of App	n lication: ^{Pending}	
Tentative Participants (1) Examiner Eric Winakur		(2) John Grover			
(3) Jarom Kesler		(4)			
Proposed Date of Inte	rview: July 27, 20	17	Proposed Ti	me: 1:30 PM Easter	<u>™</u> (OAM⊗PM)
Type of Interview Rec (1)	quested: (2) ☑ Person	al (3) 🗌 Vide	o Conference		
Exhibit To Be Shown If yes, provide brief d			⊠ NO		-
		Issues To Be Dis	cussed		
Issues (Rej., Obj., etc)	Claims/ Fig. #s	Prior Art	Discussed	Agreed	Not Agreed
(1) <u>101 Rej.</u>	7, 10-12, 16				
(2) <u>102, 103 Rej.</u>	2-13, 15-22	Amano, Mathews, David, Khair			
(3) <u>112, 2nd para</u>	3-7				
(4) Double Patenting Continuation Sheet Brief Description of A	rguments to be	Presented: The cited re	dment or Argumer	nts Attached	not teach or
suggest each and every recita An interview was con-			cation on		
<u>NOTE</u> : This form shou this form is signed by a she is authorized to cond This is not a power of at incorporated by referen Instruction Sheet. After interview (37 CFR 1.133 applicant's failure to su	registered practi duct an interview (torney to any ab ce. By signing th the interview is (b)) as soon as p	tioner not of record, the on behalf of the princ ove named practitione is form, applicant or p conducted, applicant is ossible. This applicatio	e Office will accept ipal (37 CFR 1.32(r. See the Instruction ractitioner is certify advised to file a st	t this as an indic a)(3)) pursuant on Sheet for thi ying that he or a atement of the s	cation that he or to 37 CFR 1.34. s form, which is she has read the substance of this
/Scott Cromar/ Applicant/Applicant	2				
	s kepresentativ	e signature	Exam	iner/SPE Signa	uure
Scott Cromar Typed/Printed Name o	f Applicant or R	enrecentative -	349-721-2812 Applicant's/Applicant	c Representativele	Telephone Number
65066	· · · · · · · · · · · · · · · · · · ·		Applicant s/Applicant	s representative s	receptions intitiosi
Registration f	Number, if applie quired by 37 CFR 1.133	000000000000000000000000000000000000000	obtain or retain a benefit b	y the public which is t	o file (and by the USPTO

This collection of information is required by 37 CFR 1.133. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 24 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chiel Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450, DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS, If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

- The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
- A record from this system of records may be disclosed, as a routine use, in the course of
 presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to
 opposing counsel in the course of settlement negotiations.
- 3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
- 4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
- 5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
- A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
- 7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
- 8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
- A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic A	cknowledgement Receipt
EFS ID:	29859704
Application Number:	15499619
International Application Number:	
Confirmation Number:	3723
Title of Invention:	BODY WORN MOBILE MEDICAL PATIENT MONITOR
First Named Inventor/Applicant Name:	Ammar Al-Ali
Customer Number:	64735
Filer:	Scott Cromar/Jennifer Neat
Filer Authorized By:	Scott Cromar
Attorney Docket Number:	MASIMO.317C9
Receipt Date:	21-JUL-2017
Filing Date:	27-APR-2017
Time Stamp:	18:00:45
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with	n Payment	no					
File Listing	:						
Document Number	Document Description		File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)	
				242169			
1	First Action Interview - Schedule Interview request		IntReq_317C9.pdf	f8215dd057515858f852b3801be01d9c2f3a 0ca9	no	2	
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Information:

Total Files Size (in bytes):

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New Applications Under 35 U.S.C. 111

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National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STA	tes Patent and Tradem	UNITED STAT United States Address: COMMIS P.O. Box I	, Virginia 22313-1450
APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
15/499,619	04/27/2017	Ammar Al-Ali	MASIMO.317C9
			CONFIRMATION NO. 3723
64735		PUBLICAT	ION NOTICE
KNOBBE, MARTENS, OLS	SON & BEAR, LLP		
MASIMO CORPORATION	(MASIMO)		CC00000093363086*
2040 MAIN STREET		*(JC00000093363086*
FOURTEENTH FLOOR			
IRVINE, CA 92614			

Title: BODY WORN MOBILE MEDICAL PATIENT MONITOR

Publication No.US-2017-0224233-A1 Publication Date:08/10/2017

NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publically available Searchable Databases via the Internet at www.uspto.gov. The direct link to access the publication is currently http://www.uspto.gov/patft/.

The publication process established by the Office does not provide for mailing a copy of the publication to applicant. A copy of the publication may be obtained from the Office upon payment of the appropriate fee set forth in 37 CFR 1.19(a)(1). Orders for copies of patent application publications are handled by the USPTO's Public Records Division. The Public Records Division can be reached by telephone at (571) 272-3150 or (800) 972-6382, by facsimile at (571) 273-3250, by mail addressed to the United States Patent and Trademark Office, Public Records Division, Alexandria, VA 22313-1450 or via the Internet.

In addition, information on the status of the application, including the mailing date of Office actions and the dates of receipt of correspondence filed in the Office, may also be accessed via the Internet through the Patent Electronic Business Center at www.uspto.gov using the public side of the Patent Application Information and Retrieval (PAIR) system. The direct link to access this status information is currently https://portal.uspto.gov/pair/PublicPair. Prior to publication, such status information is confidential and may only be obtained by applicant using the private side of PAIR.

Further assistance in electronically accessing the publication, or about PAIR, is available by calling the Patent Electronic Business Center at 1-866-217-9197.

Office of Data Managment, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

page 1 of 1

Doc Code: DIST.E.FILE Document Description: Electro	nic Terminal Disclaimer - Filed	PTO/SB/25 U.S. Patent and Trademark Office Department of Commerce
Electronic Petition Request	TERMINAL DISCLAIMER TO O REJECTION OVER A PENDING	BVIATE A PROVISIONAL DOUBLE PATENTING "REFERENCE" APPLICATION
Application Number	15499619	
Filing Date	27-Apr-2017	
First Named Inventor	Ammar Al-Ali	
Attorney Docket Number	MASIMO.317C9	
Title of Invention	BODY WORN MOBILE MEDICA	AL PATIENT MONITOR
Office Action	does not obviate requirement for re claimer is not being used for a Joint F	sponse under 37 CFR 1.111 to outstanding Research Agreement.
Owner		Percent Interest
Masimo Corporation		100%
part of the statutory term of any I		n hereby disclaims, except as provided below, the terminal ation which would extend beyond the expiration date of the ation Number(s)
15448989 filed on 03/03/2017	,	
15494967 filed on 04/24/2017		
15499716 filed on 04/27/2017	,	
grant of any patent on the pendi application shall be enforceable of	ng reference application. The owner only for and during such period that i	e shortened by any terminal disclaimer filed prior to the hereby agrees that any patent so granted on the instant it and any patent granted on the reference application are ne instant application and is binding upon the grantee, its
that would extend to the expirati term of any patent granted on sa	on date of the full statutory term of a id reference application may be shor	inal part of any patent granted on the instant application ny patent granted on said reference application, "as the tened by any terminal disclaimer filed prior to the grant of ny such patent granted on the pending reference

any patent on the pending reference application," In the event that any such patent granted on the pending reference application: expires for failure to pay a maintenance fee, is held unenforceable, is found invalid by a court of competent jurisdiction, is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321, has all claims canceled by a reexamination certificate, is reissued, or is in any manner terminated prior to the expiration of its full statutory term as shortened by any terminal disclaimer filed prior to its grant.

• Terminal disclaimer fee under	37 CFR 1.20(d) is included with Electronic Terminal Disclaimer request.
	CFR 1.4(d)(4), that the terminal disclaimer fee under 37 CFR 1.20(d) aimer has already been paid in the above-identified application.
Applicant claims the following fee st	atus:
Small Entity	
O Micro Entity	
Regular Undiscounted	
belief are believed to be true; and fu the like so made are punishable by f	made herein of my own knowledge are true and that all statements made on information and rther that these statements were made with the knowledge that willful false statements and ine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and y jeopardize the validity of the application or any patent issued thereon.
THIS PORTION MUST BE COMPLETE	D BY THE SIGNATORY OR SIGNATORIES
I certify, in accordance with 37 CFR	1.4(d)(4) that I am:
 An attorney or agent registered this application 	d to practice before the Patent and Trademark Office who is of record in
Registration Number6506	6
A sole inventor	
A joint inventor; I certify that I a power of attorney in the applic	am authorized to sign this submission on behalf of all of the inventors as evidenced by the ration
A joint inventor; all of whom a	re signing this request
Signature	/Scott Cromar/
Name	Scott Cromar

*Statement under 37 CFR 3.73(b) is required if terminal disclaimer is signed by the assignee (owner). Form PTO/SB/96 may be used for making this certification. See MPEP § 324.

Electronic Patent A	4pp	lication Fee	Transmit	ttal	
Application Number:	154	199619			
Filing Date:	27-	Apr-2017			
Title of Invention:	ВО	DY WORN MOBILE (MEDICAL PATIEI	NT MONITOR	
First Named Inventor/Applicant Name:	Am	nmar Al-Ali			
Filer:	Sco	ott Cromar/Chelsea	Burdeno		
Attorney Docket Number:	MA	SIMO.317C9			
Filed as Large Entity					
Filing Fees for Utility under 35 USC 111(a)					
Description		Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:					
STATUTORY OR TERMINAL DISCLAIMER		1814	1	160	160
Pages:					
Claims:					
Miscellaneous-Filing:					
Petition:					
Patent-Appeals-and-Interference:					
Post-Allowance-and-Post-Issuance:					

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension-of-Time:				
Miscellaneous:				
	Tot	al in USD	(\$)	160

Doc Code: DISQ.E.FILE Document Description: Electronic Terminal Disclaimer – Approved

Application No.: 15499619

Filing Date: 27-Apr-2017

Applicant/Patent under Reexamination: Al-Ali

Electronic Terminal Disclaimer filed on August 11, 2017

APPROVED

This patent is subject to a terminal disclaimer

DISAPPROVED

Approved/Disapproved by: Electronic Terminal Disclaimer automatically approved by EFS-Web

U.S. Patent and Trademark Office

Electronic A	cknowledgement Receipt
EFS ID:	30056059
Application Number:	15499619
International Application Number:	
Confirmation Number:	3723
Title of Invention:	BODY WORN MOBILE MEDICAL PATIENT MONITOR
First Named Inventor/Applicant Name:	Ammar Al-Ali
Customer Number:	64735
Filer:	Scott Cromar/Chelsea Burdeno
Filer Authorized By:	Scott Cromar
Attorney Docket Number:	MASIMO.317C9
Receipt Date:	11-AUG-2017
Filing Date:	27-APR-2017
Time Stamp:	16:28:27
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	\$160
RAM confirmation Number	081417INTEFSW16282500
Deposit Account	111410
Authorized User	Chelsea Burdeno
The Director of the USPTO is hereby authorized to ch	narge indicated fees and credit any overpayment as follows:
37 CFR 1.16 (National application filing, search, and	d examination fees)

37 CFR 1.17 (Patent application and reexamination processing fees)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.
			35271		
1	Terminal Disclaimer-Filed (Electronic)	eTerminal-Disclaimer.pdf	01d0eb6b3a1e17b86cbcdbee8590b7f9957 c891e	no	2
Warnings:			<u> </u>		
Information:					
			30579		
2	Fee Worksheet (SB06)	fee-info.pdf	c1b0323351a0603d7ad728eac33ff3c48d0e b791	no	2
Warnings:			ļI		
Information:					
		Total Files Size (in bytes): 6	5850	
	edgement Receipt evidences receipt I by the applicant, and including pag	•			
New Applicat If a new appli 1.53(b)-(d) an Acknowledge National Stag If a timely sul U.S.C. 371 an national stag New Internat	described in MPEP 503. <u>tions Under 35 U.S.C. 111</u> cation is being filed and the applicat of MPEP 506), a Filing Receipt (37 CF ement Receipt will establish the filing <u>ge of an International Application un</u> omission to enter the national stage d other applicable requirements a Fo e submission under 35 U.S.C. 371 wi ional Application Filed with the USP national application is being filed an	tion includes the necessary R 1.54) will be issued in due g date of the application. <u>der 35 U.S.C. 371</u> of an international applicat orm PCT/DO/EO/903 indicat Il be issued in addition to th <u>TO as a Receiving Office</u>	course and the date s tion is compliant with ting acceptance of the ne Filing Receipt, in du	g date (see hown on th the conditic application e course.	37 CFR is ons of 35 as a

Doc Code: ECOMM.AUTH/ECOMM.WTDW

Doc Description: Internet Communications Authorized/Internet Communications Authorization Withdrawn

		PTO/SB/439 (11-15)					
AUTHORIZATION FOR INTERNET	Application No.	15/499619					
COMMUNICATIONS IN A PATENT	Filing Date	April 27, 2017					
APPLICATION OR REQUEST TO	First Named Inventor	Ammar Al-Ali					
WITHDRAW AUTHORIZATION FOR	Art Unit	3735					
INTERNET COMMUNICATIONS	Examiner Name	Winakur, Eric Frank					
	Practitioner Docket No.	MASIMO.317C9					
To: Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450							
I. To authorize permission for Internet Com	munications.						
with the undersigned and practitioners in ac	cordance with 37 CFR cing, instant messagir	hereby authorize the USPTO to communicate 1.33 and 37 CFR 1.34 concerning any subject ng, or electronic mail. I understand that a copy of le. (MPEP 502.03)					
II. To withdraw authorization for Internet C	ommunications.						
	1.33 and 37 CFR 1.34 c onferencing, instant r						
l am the							
applicant.							
attorney or agent of record. Reg	sistration number <u>65</u>						
attorney or agent acting under 3	37 CFR 1.34. Registrati	ion number					
/Scott Cromar/	20	17-08-16					
Signature		Date					
Scott Cromar	94	9-721-2812					
Typed or printed name Telephone Number							
must be represented by a patent practitioner (see 37 C presented on behalf of a juristic entity, regardless of ap below*.	FR 1.31, which is applicable	or signature requirements and certifications. Juristic entities to any paper filed on or after September 16, 2012, that is it multiple forms if more than one signature is required, see					
* Total of <u>1</u> forms are submitted.							

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

- 1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
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- 3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
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- 5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
- 6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
- 7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
- 8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
- 9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Acknowledgement Receipt					
EFS ID:	30098790				
Application Number:	15499619				
International Application Number:					
Confirmation Number:	3723				
Title of Invention:	BODY WORN MOBILE MEDICAL PATIENT MONITOR				
First Named Inventor/Applicant Name:	Ammar Al-Ali				
Customer Number:	64735				
Filer:	Scott Cromar/ThuyQuyen Nguyen				
Filer Authorized By:	Scott Cromar				
Attorney Docket Number:	MASIMO.317C9				
Receipt Date:	16-AUG-2017				
Filing Date:	27-APR-2017				
Time Stamp:	16:48:37				
Application Type:	Utility under 35 USC 111(a)				

Payment information:

Submitted with Payment no			no				
File Listin	g:						
Document Number	Document Description		File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)	
1	Internet Communications Authorized	E	Comm_MASIMO317C9.PDF	112081 50ecc84c8064ea1adb8e86a457ef9f90dc8c 9296	no	2	
Warnings:				•	ľ		

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Total Files Size (in bytes):

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SUMMARY OF INTERVIEW

Inventor	:	Ammar Al-Ali
App. No	:	15/499619
Filed	:	April 27, 2017
For	:	BODY WORN MOBILE MEDICAL PATIENT MONITOR
Examiner	:	Winakur, Eric Frank
Art Unit	:	3735
Conf No.	:	3723

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Commissioner:

Pursuant to the Examiner Interviews of July 27, 2017, August 11, 2017, and August 16, 2017, Applicant submits this Summary of Interview for recording in the official file.

Attendees, Date and Type of Interview

An in-person interview was conducted on July 27, 2017, and attended by Examiner Eric Winakur and Applicant's representatives John Grover and Jarom Kesler. Follow up interviews took place on August 11, 2017 and August 16, 2017, and were attended by Examiner Eric Winakur and Applicant's representative Scott Cromar.

Exhibits and/or Demonstrations

The subject matter of the application was discussed in reference to various figures of the application.

Identification of Claims Discussed

Claims 2-13 and 15-22.

Application No.:15/499619Filing Date:April 27, 2017

Identification of Cited/Disclosed Art Discussed

References of record including U.S. Patent No. 6,241,684 to Amano et al. ("Amano"), U.S. Patent No. 6,516,289 to David ("David"), U.S. Patent No. 6,897,788 to Khair et al. ("Khair"), and U.S. Patent No. 5,431,170 to Mathews ("Mathews").

Proposed Amendments

Certain proposed amendments were discussed.

Substance and Results of Interview

During the initial interview the rejections under 35 U.S.C. §§ 102(e) & 103(a), including differences between certain features of the claims and the cited references, were discussed. The rejections under 35 U.S.C. § 112, second paragraph, and 35 U.S.C. § 101 were also discussed during the initial interview. During the follow up interviews, Mr. Cromar and Examiner Winakur further discussed the rejections and agreed that certain proposed amendments would overcome the rejections, and Applicant authorized entry of the proposed amendments by examiner's amendment. Applicant reserves the right to pursue the previously pending claims, and/or the subject matter of the previously pending claims, in a continuing application.

During the initial interview Examiner Winakur agreed that the pending claims meet all of the requirements of 35 U.S.C. § 112 in view of the present specification. Further, during the initial interview Examiner Winakur agreed that, because priority was properly claimed to the earliest priority document (i.e., provisional application no. 60/367428, filed March 25, 2002), the pending claims would meet all of the requirements of 35 U.S.C. § 112 to the extent the earliest priority document includes the disclosure of the present specification.

During the follow up interviews Examiner Winakur further agreed that the proposed amendments also meet all of the requirements of 35 U.S.C. § 112 in view of the present specification.

Application No.:15/499619Filing Date:April 27, 2017

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: August 24, 2017

By: /Scott Cromar/_____ Scott A. Cromar Registration No. 65,066 Registered Practitioner Customer No. 64735 (949) 760-0404

26518155

Electronic Acknowledgement Receipt					
EFS ID:	30179166				
Application Number:	15499619				
International Application Number:					
Confirmation Number:	3723				
Title of Invention:	BODY WORN MOBILE MEDICAL PATIENT MONITOR				
First Named Inventor/Applicant Name:	Ammar Al-Ali				
Customer Number:	64735				
Filer:	Scott Cromar/Tony Do				
Filer Authorized By:	Scott Cromar				
Attorney Docket Number:	MASIMO.317C9				
Receipt Date:	24-AUG-2017				
Filing Date:	27-APR-2017				
Time Stamp:	18:29:29				
Application Type:	Utility under 35 USC 111(a)				

Payment information:

Submitted wit	h Payment	no					
File Listing	g:						
Document Number	Document Description		File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)	
1	Applicant summary of interview with examiner	Ir	ntSum_MASIMO317C9.pdf	23734 66ace540c01c50967dcbab6481f23e0ec1a5 9eec	no	3	
Warnings:				•	•		

Information:

Total Files Size (in bytes):

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UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

64735 7590 08/28/2017 KNOBBE, MARTENS, OLSON & BEAR, LLP MASIMO CORPORATION (MASIMO) 2040 MAIN STREET FOURTEENTH FLOOR IRVINE, CA 92614 EXAMINER

WINAKUR, ERIC FRANK

ART UNIT PAPER NUMBER
3735

DATE MAILED: 08/28/2017

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/499,619	04/27/2017	Ammar Al-Ali	MASIMO.317C9	3723

TITLE OF INVENTION: BODY WORN MOBILE MEDICAL PATIENT MONITOR

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$960	\$0	\$0	\$960	11/28/2017

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. <u>PROSECUTION ON THE MERITS IS CLOSED</u>. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN <u>THREE MONTHS</u> FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. <u>THIS STATUTORY PERIOD CANNOT BE EXTENDED</u>. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

239

PART B - FEE(S) TRANSMITTAL

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or <u>Fax</u> (571)-273-2885

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64735 7590 08/28/2017 KNOBBE, MARTENS, OLSON & BEAR, LLP MASIMO CORPORATION (MASIMO) 2040 MAIN STREET FOURTEENTH FLOOR **IRVINE, CA 92614**

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(Date)

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR		ATTORN	NEY DOCKET NO.	CONFIRMATION NO.
15/499,619	04/27/2017	•	Ammar Al-Ali		MASIMO.317C9 3723		
TITLE OF INVENTION	: BODY WORN MOBI	LE MEDICAL PATIEN	T MONITOR				
APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE		TOTAL FEE(S) DUE	DATE DUE
					S FEE		
nonprovisional	UNDISCOUNTED	\$960	\$0	\$0		\$960	11/28/2017
EXAM	IINER	ART UNIT	CLASS-SUBCLASS]			
WINAKUR, H	ERIC FRANK	3735	600-323000	•			
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3. ASSIGNEE NAME A	ND RESIDENCE DATA	A TO BE PRINTED ON	THE PATENT (print or typ	be)			
PLEASE NOTE: Uni	less an assignee is ident	ified below, no assignee	e data will appear on the pa DT a substitute for filing an a	atent. If an assigne	ee is iden	tified below, the do	ocument has been filed for
(A) NAME OF ASSI			(B) RESIDENCE: (CITY				
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Please check the appropr	iate assignee category or	categories (will not be p	printed on the patent):	Individual 🖵 Co	orporation	or other private gro	up entity 🖵 Government
4a. The following fee(s)	are submitted:	4	b. Payment of Fee(s): (Plea	ise first reapply an	y previo	usly paid issue fee s	shown above)
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NOTE: This form must b	be signed in accordance v	with 37 CFR 1.31 and 1.3	33. See 37 CFR 1.4 for signa	ature requirements a	and certif	ications.	
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OMB 0254-0033

PTOL-85 Part B (10-13) Approved for use through 10/31/2013.

UNITED STATES PATENT AND TRADEMARK OFFICE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspio.gov								
APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.				
15/499,619	04/27/2017	Ammar Al-Ali	MASIMO.317C9	3723				
64735 75	90 08/28/2017		EXAMINER					
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2040 MAIN STRE			ART UNIT	PAPER NUMBER				
FOURTEENTH FI			3735					
IRVINE, CA 92614	+		DATE MAILED: 08/28/201	7				

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(Applications filed on or after May 29, 2000)

The Office has discontinued providing a Patent Term Adjustment (PTA) calculation with the Notice of Allowance.

Section 1(h)(2) of the AIA Technical Corrections Act amended 35 U.S.C. 154(b)(3)(B)(i) to eliminate the requirement that the Office provide a patent term adjustment determination with the notice of allowance. See Revisions to Patent Term Adjustment, 78 Fed. Reg. 19416, 19417 (Apr. 1, 2013). Therefore, the Office is no longer providing an initial patent term adjustment determination with the notice of allowance. The Office will continue to provide a patent term adjustment determination with the Issue Notification Letter that is mailed to applicant approximately three weeks prior to the issue date of the patent, and will include the patent term adjustment on the patent. Any request for reconsideration of the patent term adjustment determination (or reinstatement of patent term adjustment) should follow the process outlined in 37 CFR 1.705.

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

- 1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
- 2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
- 3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
- 4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
- 5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
- 6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
- 7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
- 8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
- 9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

	Application No. 15/499.619	Applicant(s) AL-ALI, AMMAR						
Notice of Allowability	Examiner	Art Unit	AIA (First Inventor to File) Status					
	Eric Winakur	3735	No					
The MAILING DATE of this communication appe All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT R of the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED in this app or other appropriate communication IGHTS. This application is subject to	blication. If no will be mailed	t included I in due course. THIS					
1. X This communication is responsive to the PIC interviews and	d Terminal Disclaimer.							
A declaration(s)/affidavit(s) under 37 CFR 1.130(b) was/were filed on								
2. An election was made by the applicant in response to a response to a response to a requirement and election have been incorporated into this a		he interview or	n; the restriction					
 3. X The allowed claim(s) is/are <u>2-13 and 15-22</u>. As a result of the Prosecution Highway program at a participating intellectual please see http://www.uspto.gov/patents/init_events/pph/inc 	al property office for the correspondir	g application.	For more information,					
4. Acknowledgment is made of a claim for foreign priority under	er 35 U.S.C. § 119(a)-(d) or (f).							
Certified copies:								
a) 🔲 Allb) 🔲 Some tron 🗌 None of the:								
1. Certified copies of the priority documents have								
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 Copies of the certified copies of the priority do International Bureau (PCT Rule 17.2(a)). 	cuments have been received in this	national stage	application from the					
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Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDONM THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.	of this communication to file a reply IENT of this application.	complying with	n the requirements					
5. CORRECTED DRAWINGS (as "replacement sheets") mus	t be submitted.							
including changes required by the attached Examiner' Paper No./Mail Date	s Amendment / Comment or in the C	office action of						
Identifying indicia such as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in t			(not the back) of					
6. DEPOSIT OF and/or INFORMATION about the deposit of E attached Examiner's comment regarding REQUIREMENT FO			the					
Attachment(s)								
1. I Notice of References Cited (PTO-892)	5. 🔀 Examiner's Amendi	nent/Commen	t					
2. Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date	6. 🛛 Examiner's Stateme	ent of Reasons	s for Allowance					
3. Examiner's Comment Regarding Requirement for Deposit of Biological Material	7. 🔲 Other							
4. Interview Summary (PTO-413), Paper No./Mail Date								
U.S. Patent and Trademark Office PTOL-37 (Rev. 08-13) 20170817	Notice of Allowability	Part o	f Paper No./Mail Date					

1. The present application is being examined under the pre-AIA first to invent provisions.

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in an interview with Scott Cromar on 16 August 2017.

The application has been amended as follows:

Claim 2 was amended as follows:

2. A body worn mobile medical monitoring device configured to minimize cable wiring from a sensor by placement of one or more sensor communication ports, the mobile medical monitoring device comprising:

a housing configured to be secured on a lower arm of a patient being monitored via a strap extending around the lower arm of the patient;

a display positioned on a face of the housing, opposite the strap, so as to be visible to a user;

a first sensor communication port positioned on a side of the housing and configured to face a hand of the lower arm of the patient when the mobile medical monitoring device is mounted to the lower arm of the patient, wherein:

the side of the housing faces the hand of the lower arm of the patient of the patient when the mobile medical monitoring device is mounted to the lower arm of the patient,

the first sensor communication port is configured to provide wired communication with a pulse oximetry sensor attached to a digit of the hand of the patient. Application/Control Number: 15/499,619 Art Unit: 3735

> the wired communication with the pulse oximetry sensor provided at least partly in the analog domain, and

> the first sensor communication port is positioned on the side of the housing such that a path from the first sensor communication port on the side of the housing to the digit of the patient is <u>substantially perpendicular</u> to the side of the housing and shorter than any other path from any other side of the housing to the digit of the patient:

<u>a plurality of additional sensor communications ports positioned on the</u> <u>housing and configured to provide wired communication with a plurality of</u> <u>additional physiological sensors at least partly in the digital domain; and</u>

one or more processors and a transmitter configured to:

display, on the display, physiological measurements derived from the pulse oximetry sensor and the plurality of additional physiological sensors; and

wirelessly transmit information indicative of the physiological measurements to a remote computing device.

Claim 13 was amended as follows:

13. The mobile medical monitoring device of Claim 12, wherein the display positioned on the face of the housing is sized such that the display covers most of a length of a shortest dimension of the face of the housing., and wherein the mobile medical monitoring device further comprises:

second and third sensor communication ports positioned on the housing and configured to provide wired communication with one or more additional physiological sensors.

Claim 15 was amended as follows:

15. A body worn, battery-powered medical monitoring device configured to provide on-patient and remote monitoring of patient physiological parameters, the medical monitoring device comprising:

a battery configured to provide power to the medical monitoring device such that the medical monitoring device may operate without a wired power connection;

a case configured to house the battery;

a strap configured to attach the case to an arm of a patient and be mountable to the case;

a first communications port positioned on <u>a face of a side of the case</u> configured to be nearest to a hand of the arm of the patient when the case is mounted to the arm of the patient, the first communications port configured to removably couple with a cable of a finger- or thumb-type pulse oximetry sensor and positioned on the <u>face of the side of the case</u> to provide a path from the first communications port to a digit of the hand of the patient that avoids tangling of the cable, the first communications port configured such that the cable perpendicularly extends from the face of the side of the side of the case when the cable is <u>coupled to the first communications port</u>;

a second communications port configured to provide <u>wired</u> communications with a second physiological sensor arrangement<u>at least partly</u> <u>via digital communications;</u>

a third communications port configured to provide <u>wired</u> communications with a third physiological sensor arrangement;

a display configured to provide real time measurements of patient physiological parameters based at least in part on data obtained from at least the pulse oximetry sensor via the first communications port; and

a transmitter configured to wirelessly transmit information indicative of real time measurements of patient physiological parameters based at least in part on data obtained from the pulse oximetry sensor via the first communications port. Claim 22 was amended as follows:

22. A[[n]] body worn portable patient monitoring device configured to provide onpatient and remote monitoring of patient physiological parameters, the portable patient monitoring device comprising:

a pulse oximetry sensor configured to be wrapped around a digit of a patient, the pulse oximetry sensor including at least:

a light emitter configured to emit light into a tissue site of the digit of the patient;

a light detector configured output a first signal responsive to at least a portion of the emitted light after attenuation by tissue of the tissue site; and

a cable extending from the pulse oximetry sensor and configured to electrically convey the first signal;

a blood pressure sensor configured to output a second signal responsive to at least a blood pressure parameter of the patient;

an additional sensor arrangement configured to output a third signal responsive to at least one additional physiological parameter of the patient other than blood pressure or oxygen saturation, the at least one additional physiological parameter including at least one of: temperature or respiration rate;

a housing configured to be secured to a lower arm of the patient, the housing having a size and shape configured to be secured to the lower arm of the patient;

a strap mountable to the back side of the housing, the strap configured to secure the housing to the lower arm of the patient;

a display positioned on a front side of the housing that is opposite a back side of the housing, the display configured to show a status of the portable patient monitoring device and one or more parameter measurements so as to be viewable by a user, wherein the display is positioned centrally on the front side of the display and is sized such that the display spans most of a length of a shortest dimension of the front side of the housing, and wherein the front side of the housing comprises a single user interface and a bezel;

one or more user input mechanisms configured to control an operational mode of the portable patient monitoring device in response to inputs from a user;

a first sensor port positioned on a <u>face of a first side of the housing</u>, wherein:

the face of the first side of the housing is configured to face toward a hand having the digit of the patient under measurement when the housing is secured to the lower arm of the patient,

the first sensor port is configured to removably physically couple with the pulse oximetry sensor via the cable and to electrically receive the first signal from the pulse oximetry sensor,

the cable is configured to run from the first sensor port, at least part way along a path <u>substantially perpendicular to the face of the first side of</u> <u>the housing</u>, down the arm of the patient, and to the digit of the patient to which the pulse oximetry sensor is configured to be wrapped around,

the front side of the housing is raised from the strap and the lower arm of the patient to enable positioning of the first sensor port on the first side of the housing between the lower arm of the patient and the front side of the housing, and

a top of the first sensor port is located below the front of the housing;

a second sensor port positioned on the housing and configured to provide <u>wired</u> electrical communication with the blood pressure sensor arrangement and to electrically receive second signal from the blood pressure sensor arrangement;

a third sensor port positioned on the housing and configured to provide electrical <u>wired</u> communication with the additional sensor arrangement and to electrically receive the third signal from the additional sensor arrangement; a rechargeable battery positioned within the housing and configured to power the portable patient monitoring device such that the portable patient monitoring device is portable and wearable by the patient;

one or more signal processing arrangements positioned within the housing and configured to:

receive the first signal from the pulse oximetry sensor via one or more sensor interfaces, wherein the first signal is provided at least partly as an analog signal;

process the first signal from the pulse oximetry sensor to determine measurements of oxygen saturation and pulse rate;

receive the second signal from the blood pressure sensor arrangement via the one or more sensor interfaces, the second signal responsive to at least a blood pressure parameter of the patient;

receive the third signal from the additional sensor arrangement via the one or more sensor interfaces, the third signal responsive to the at least one additional physiological parameter of the patient including at least one of: temperature or respiration rate, wherein the third signal is provided at least partly as a digital signal; and

cause the measurements of oxygen saturation, pulse rate, blood pressure, and the at least one additional physiological parameter to all be displayed on the display of the portable patient monitoring device; and a transmitter positioned within the housing and configured to:

wirelessly transmit a transmit signal including the information indicating the measurements of oxygen saturation, pulse rate, blood pressure, and the at least one additional physiological parameter to a separate computing device configured to display, on a remote display, the measurements of oxygen saturation, pulse rate, blood pressure, and the at least one additional physiological parameter.

3. The following is an examiner's statement of reasons for allowance: Consistent with the requirements of the First Action Interview Pilot Program, on 27 July 2017 Examiner and Applicant's Representatives (John Grover and Jarom Kesler) held an in person interview to review the rejections as indicated on the Pre-Interview Communication mailed 3 July 2017. Applicant pointed to 1) Differences in the environment of use of their device (hospital) and that of Amano (during exercise), and 2) Alleged that there was a need for increased accuracy in the hospital/medical testing setting which was reflected in certain claimed features, particularly placement of ports to permit more direct connection between the sensor and the monitor which serve to reduce potential causes of interference/noise from cable motion/sensor dislodgement. Further, Applicant stressed that 3) by including multiple ports in their device they provide a modular device for building a sensing set. In contrast, Applicant noted that the secondary reference (David) disclosed an all-in-one arrangement with fixed connections between sensor elements and the processor, and thus did not suggest a modular build. Also, the base reference had a single connection with a sensor, consistent with the teaching that it was only processing information to produce pulse rate related outputs. Additionally, differences in the wireless data transmission were also discussed. Applicant generally alleged that the claims as presented in the Preliminary Amendment filed 22 May 2017 had details directed to these distinguishing characteristics.

Application/Control Number: 15/499,619 Art Unit: 3735

Examiner reiterated that as indicated in the Pre-Interview Communication, 1) the base reference (Amano) sufficiently shows a manner to connect sensor elements with the monitor device, 2) one of ordinary skill in the art would recognize that such a connection could be used with additional sensors, such as those of David, 3) that David was relied upon to show additional physiological parameters of interest and was not provided to suggest the manner of connections, and therefore 4) in implementing Amano with additional sensors, per David, one would recognize the need for connecting the sensors with the monitor and would also be aware of connectable/disposable sensors for a variety of physiological parameters and also would be aware of modular monitoring configurations, and thus would have considered using the already disclosed connector type taught by Amano when implementing the combination with the additional sensors.

Although no particular conclusion was reached during the interview, Applicant indicated that the interview served to clarify Examiner's interpretations. Applicant requested the opportunity to present a proposed amendment in a follow up discussion to try to better capture the distinguishing characteristics that they had relayed and to overcome the issues Examiner indicated. Examiner agreed to consider such a proposal before mailing a First Action Interview Office Action and Interview Summary.

For the follow up discussion, Scott Cromar contacted the Examiner on 10 August 2017 with the proposed amendment, explained the basis for the changes, and indicated that the changes were intended to address Examiner's concerns. Further, Mr. Cromar indicated that a Terminal Disclaimer would be filed to address the Double Patenting

251

Application/Control Number: 15/499,619 Art Unit: 3735

Page 10

and confirmed, during the conversation of 16 August 2017 indicated above, entry of the amendments as set forth herein.

The prior art does not teach or suggest the positioning of the port in conjunction with two additional ports and in relation to the optical sensor components, as recited in the amended claims, in combination with the other claimed features, but rather indicates the connector is positioned at the 6 o'clock position (Amano - at col 9, lines 4 - 9) and button/switches for data entry/mode selection are positioned at 2, 4, 8 and 10 o'clock positions. Further, the connection of Amano receives analog data from a single sensor having one emitter and one detector; there is no teaching or suggestion in the prior art to receive some data in analog form through a first port and other physiological data in digital form through a second port.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Winakur whose telephone number is (571)272-4736. The examiner can normally be reached on M-F; 9-5:30.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an

252
Application/Control Number: 15/499,619 Art Unit: 3735

interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at http://www.uspto.gov/interviewpractice.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia Mallari can be reached on 571/272-4729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Eric Winakur/ Primary Examiner, Art Unit 3735

	Application/Control No.	Applicant(s)/Patent Under Reexamination
Search Notes	15499619	AL-ALI, AMMAR
	Examiner	Art Unit
	ERIC WINAKUR	3735

CPC- SEARCHED										
Symbol Date Exar										
A61B5/0002	6/8/17	EFW								
A61B5/0004	6/8/17	EFW								
A61B5/0024	6/8/17	EFW								
A61B5/02	6/8/17	EFW								
A61B5/0205	6/8/17	EFW								
A61B5/0402	6/8/17	EFW								
A61B5/1455	6/8/17	EFW								
A61B5/14551	6/8/17	EFW								
A61B5/6825	6/8/17	EFW								
A61B5/6826	6/8/17	EFW								
A61B5/6831	6/8/17	EFW								
A61B5/72	6/8/17	EFW								
A61B2560/0443	6/8/17	EFW								
A61B2562/06	6/8/17	EFW								
UPDATED above	8/14/17	EFW								

CPC COMBINATION SETS - SEARCHED							
Symbol	Date	Examiner					

	US CLASSIFICATION SEARCH	ED	
Class	Subclass	Date	Examiner

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

SEARCH NOTES								
Search Notes	Date	Examiner						
PALM inventor name search	6/8/17	EFW						

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INTERFERENCE SEARCH									
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner						
PGPub	see search history	8/18/17	EFW						

	Application/Control No.	Applicant(s)/Patent Under Reexamination
Issue Classification	15499619	AL-ALI, AMMAR
	Examiner	Art Unit
	ERIC WINAKUR	3735

Symbol			Туре	Version		
A61B	5	0205	F	2013-01-01		
A61B	5	0024	1	2013-01-01		
A61B	5	021	I	2013-01-01		
A61B	5	0404	I	2013-01-01		
A61B	5	14552	I	2013-01-01		
A61B	5	6824	1	2013-01-01		
A61B	5	6826	I	2013-01-01		
A61B	5	6831	1	2013-01-01		
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CPC Combination Sets									
Symbol	Туре	Set	Ranking	Version					

NONE	E					
(Assistant Examiner)	(Date)	20				
/ERIC WINAKUR/ Primary Examiner.Art Unit 3735	08/21/2017	O.G. Print Claim(s)	O.G. Print Figure			
(Primary Examiner)	(Date)	1	3			
U.S. Patent and Trademark Office		Pa	rt of Paper No. 20170817			

	Application/Control No.	Applicant(s)/Patent Under Reexamination
Issue Classification	15499619	AL-ALI, AMMAR
	Examiner	Art Unit
	ERIC WINAKUR	3735

	US ORIGINAL CLASSIFICATION							INTERNATIONAL	CLA	SS	IFIC	ATI	ON		
	CLASS SUBCLASS						С	LAIMED			N	ION-	CLAIMED		
						А	6	1	В	5 / 1455 (2006.01.01)					
	CROSS REFERENCE(S)		А	6	1	в	5 / 0205 (2006.01.01)								
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NONE		Total Clain	ns Allowed:
(Assistant Examiner)	(Date)	2	0
/ERIC WINAKUR/ Primary Examiner.Art Unit 3735	08/21/2017	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	3

U.S. Patent and Trademark Office

Part of Paper No. 20170817

	Application/Control No.	Applicant(s)/Patent Under Reexamination
Issue Classification	15499619	AL-ALI, AMMAR
	Examiner	Art Unit
	ERIC WINAKUR	3735

	Claims re	numbere	d in the s	ame orde	r as prese	ented by a	applicant		СР	A 🗵	T.D.	۵] R.1.4	47	
Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original

NONE		Total Clain	ns Allowed:
(Assistant Examiner)	(Date)	2	0
/ERIC WINAKUR/ Primary Examiner.Art Unit 3735	08/21/2017	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	3

U.S. Patent and Trademark Office

Part of Paper No. 20170817

EAST Search History

EAST Search History (Interference)

Ref	Hits	Search Query	DBs	Default	Plurals	Time
#	L			Operator		Stamp
L1		(emitter and detector and (port input) and (arm wrist hand) and pulse and (oximeter oximetry)).clm.	US- PGPUB	OR	ON	2017/08/18 16:29

8/18/2017 4:32:20 PM

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Index of Claims				1	15499619				AL-AL	AL-ALI, AMMAR				
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		21	✓		=									
		22	✓		I									

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE **Commissioner for Patents** P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

64735 7590 08/28/2017 KNOBBE, MARTENS, OLSON & BEAR, LLP MASIMO CORPORATION (MASIMO) 2040 MAIN STREET FOURTEENTH FLOOR **IRVINE, CA 92614**

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

	(Depositor's name)
	(Signature)
	(Date)

APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR	ATTORNEY	DOCKET NO.	CONFIRMATION NO.			
15/499,619	04/27/2017		Ammar Al-Ali		MASIN	40.317C9	3723		
TITLE OF INVENTION	BODY WORN MOBE	LE MEDICAL PATIENT	MONITOR						
APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSU	F FFF TO	TAL FEE(S) DUE	DATE DUE		
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nonprovisional	UNDISCOUNTED	\$960	50	\$0		\$960	11/28/2017		
EXAM	UNER	ART UNIT	CLASS-SUBCLASS						
WINAKUR, H	ERIC FRANK	3735	600-323000	2					
1. Change of correspond CFR 1.363).	ence address or indicatio	on of "Fee Address" (37	2. For printing on the p			1 Knobbe	Martane		
	ondence address (or Cha 3/122) attached.	unge of Correspondence	 (1) The names of up to or agents OR, alternativ 	 3 registered paten vely, 	t attorneys				
			(2) The name of a single	le firm (having as a	member a	2Q	2 Olson & Bear LLP		
PTO/SB/47; Rev 03-0 Number is required.	ication (or "Fee Address)2 or more recent) attach	ed. Use of a Customer	2 registered patent atto	2 registered patent attorneys or agents. If no name is 3					
		A TO BE PRINTED ON (THE PATENT (print or tyr	1	~~~~~	*****	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		
			\ L → 1		ee is identifi	ed below, the do	cument has been filed for		
	-	pletion of this form is NO	-	-					
(A) NAME OF ASSI			(B) RESIDENCE: (CITY	and STATE OR C	OUNIKY)				
MASIMO (CORPORATION	Ţ	IRVINE, CA						
Please check the appropr	iate assignee category or	r categories (will not be p	inted on the patent) :	Individual 🕅 Co	orporation or	other private gro	up entity Government		
4a. The following fee(s)	are submitted:	41	o. Payment of Fee(s): (Plea	ise first reapply ar	y previously	y paid issue fee s	hown above)		
Issue Fee			A check is enclosed.						
	to small entity discount j		 Payment by credit card. Form PTO-2038 is attached. The director is hereby authorized to charge the required fee(s), any deficiency, or credits any overpayment, to Deposit Account Number <u>111410</u> (enclose an extra copy of this form). 						
Advance Order - #	t of Copies		overpayment, to Depo	sit Account Numbe	er <u>11141</u>	(1) (1)	extra copy of this form).		
5. Change in Entity Sta	tue (from statue indicate	d ahova)							
·	ng micro entity status. Se	· · · · · · · · · · · · · · · · · · ·	NOTE: Absent a valid ce	rtification of Micro	Entity Statu	s (see forms PTC	/SB/15A and 15B), issue		
	g small entity status. See	27 CEE 1 27	fee payment in the micro <u>NOTE</u> : If the application	~			application abandonment.		
	0 1		to be a notification of los	s of entitlement to 1	nicro entity s	status.			
Applicant changin	g to regular undiscounte	d fee status.	<u>NOTE:</u> Checking this box entity status, as applicable		e a notificatio	on of loss of entit	lement to small or micro		
NOTE: This form must b	be signed in accordance v	with 37 CFR 1.31 and 1.3	3. See 37 CFR 1.4 for sign	ature requirements	and certificat	ions.	****		
A	/Scott Croma	r/		D.t. 201	7-09-07				
Authorized Signature				Date		0.4.4			
Typed or printed nam	e Scott Crom	nar		Registration N	io. <u>65</u>	066			
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Page 2 of 3

PTOL-85 Part B (10-13) Approved for use through 10/31/2013.

OMB 026-1033 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Inventor	:	Ammar Al-Ali
App. No.	:	15/499619
Filed	:	April 27, 2017
For	:	BODY WORN MOBILE MEDICAL PATIENT MONITOR
Examiner	:	Winakur, Eric Frank
Art Unit	:	3735
Conf. No.	:	3723

COMMENTS ON EXAMINER'S STATEMENT OF REASONS FOR ALLOWANCE

Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Commissioner:

In response to the Examiner's Statement of Reasons for Allowance mailed on August 28, 2017, Applicant respectfully submits the following comments.

Applicant acknowledges the Examiner's statement regarding Allowable Subject Matter and agrees that the claimed subject matter is patentable. To the extent that there is any implication that the patentability of the claims rests on the recitation of a single feature, Applicant respectfully disagrees with the Examiner's Statement because it is the combination of features that makes the claims patentable. Accordingly, Applicant submits that the claims of the present application are allowable because each of the claims recites a combination of features that are not taught or suggested by the prior art. Applicant takes no other positions regarding the Allowable Subject Matter presented by the Examiner other than the positions Applicant may have previously taken during prosecution. Therefore, the Examiner's statement regarding Allowable Subject Matter should not be attributed to Applicant as an indication of the basis for Applicant's belief that the claims are patentable. Furthermore, Applicant respectfully asserts that

-1-

there may also be additional reasons for patentability of the claimed subject matter not explicitly stated in this record and Applicant does not waive rights to such arguments by not further addressing such reasons herein.

To the extent that there is any implication that the patentability of dependent claims is only attributable to the limitations in the independent claim from which each depends or that the dependent claims have the same scope as the claims from which they depend, Applicant respectfully disagrees and notes that it is each claim, taken as a whole, that is patentable. For dependent claims, their additional limitations may also provide additional reasons for patentability. Accordingly, Applicant submits that each of the allowed claims is allowable because the prior art does not teach or suggest the combination of features

Applicant reserves the right to pursue at a later date any previously pending or other broader or narrower claims that capture any subject matter supported by the application's disclosure. Accordingly, reviewers of this or any child or related prosecution history shall not reasonably infer that the Applicant has made any disclaimers, disavowals, or abandonments of any subject matter supported by the present application, and any prior or alleged disclaimers, disavowals, or abandonments are hereby rescinded.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: September 7, 2017

By: /Scott Cromar/_

Scott A. Cromar Registration No. 65,066 Registered Practitioner Customer No. 64735 (949) 760-0404

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263

First Inventor	:	Ammar Al-Ali					
App. No.	:	15/499619					
Filed	:	April 27, 2017					
For	:	BODY WORN MOBILE MEDICAL PATIENT MONITOR					
Examiner	:	Winakur, Eric Frank					
Art Unit	:	3735					
Conf. No.	:	3723					

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

References and Listing

Pursuant to 37 CFR 1.56, an Information Disclosure Statement listing references is provided herewith. Copies of any listed foreign and non-patent literature references are being submitted.

Pursuant to 37 CFR 1.97(g) and (h), Applicants make no representation that the information is considered to be material to patentability. Additionally, inclusion on this list is not an admission that any of the cited documents are prior art in this application. Further, Applicants make no representation regarding the completeness of this list, or that better art does not exist.

No Disclaimers

To the extent that anything in the Information Disclosure Statement or the listed references could be construed as a disclaimer of any subject matter supported by the present application, Applicant hereby rescinds and retracts such disclaimer. Application No.:15/499619Filing Date:April 27, 2017

Timing of Disclosure

This Information Disclosure Statement is being filed after the mailing date of a final action or after the mailing date of a Notice of Allowance.

Respectfully submitted, KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: September 7, 2017

By: /Scott Cromar/_____ Scott A. Cromar Registration No. 65,066 Registered Practitioner Customer No. 64735 (949) 760-0404

26587038

PTO/SB/08 Equivalent

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT BI ALLEIOANT	Art Unit	3735
(Multiple sheets used when necessary)	Examiner	Winakur, Eric Frank
SHEET 1 OF 1	Attorney Docket No.	MASIMO.317C9

	U.S. PATENT DOCUMENTS												
Examiner Initials	Cite No.	Document NumberPublicationNumber - Kind Code (if known)DateExample:1,234,567 B1MM-DD-YYYY		Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear									
	1	D788,312	05-30-2017	Al-Ali et al.									
	2	6,570,592	05-27-2003	Sajdak et al.									
	3	8,758,020	06-24-2014	Burdea et al.									
	4	9,125,578	09-08-2015	Grunwald									
	5	2017/0224216	08-10-2017	Al-Ali									
	6	2017/0224231	08-10-2017	Al-Ali									
	7	2017/0224262	08-10-2017	Al-Ali									

	FOREIGN PATENT DOCUMENTS						
Examiner Initials	Cite No.	Foreign Patent Document Country Code-Number-Kind Code Example: JP 1234567 A1	Publication Date MM-DD-YYYY	Name	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T ¹	

NON PATENT LITERATURE DOCUMENTS					
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T1		

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	Examiner Signature	Date Considered
- 1	*Examiner: Initial if reference considered, whether or not citation is in conform in conformance and not considered. Include copy of this form with next commu	

 T^1 - Place a check mark in this area when an English language Translation is attached.

Electronic Patent Application Fee Transmittal					
Application Number:	15499619				
Filing Date:	27-	Apr-2017			
Title of Invention: BODY WORN MOBILE MEDICAL PATIENT				ENT MONITOR	
First Named Inventor/Applicant Name:	Ammar Al-Ali				
Filer:	Scott Cromar				
Attorney Docket Number:	MA	SIMO.317C9			
Filed as Large Entity					
Filing Fees for Utility under 35 USC 111(a)					
Description		Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:					
Pages:					
Claims:					
Miscellaneous-Filing:					
Petition:					
Patent-Appeals-and-Interference:					
Post-Allowance-and-Post-Issuance:					
UTILITY APPL ISSUE FEE	UTILITY APPL ISSUE FEE 1501 1 960 960				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension-of-Time:				
Miscellaneous:				
	Tot	al in USD) (\$)	960

Electronic A	Electronic Acknowledgement Receipt				
EFS ID:	30300977				
Application Number:	15499619				
International Application Number:					
Confirmation Number:	3723				
Title of Invention:	BODY WORN MOBILE MEDICAL PATIENT MONITOR				
First Named Inventor/Applicant Name:	Ammar Al-Ali				
Customer Number:	64735				
Filer:	Scott Cromar/ThuyQuyen Nguyen				
Filer Authorized By:	Scott Cromar				
Attorney Docket Number:	MASIMO.317C9				
Receipt Date:	07-SEP-2017				
Filing Date:	27-APR-2017				
Time Stamp:	17:51:24				
Application Type:	Utility under 35 USC 111(a)				

Payment information:

Submitted with Payment	yes		
Payment Type	CARD		
Payment was successfully received in RAM	\$960		
RAM confirmation Number	090817INTEFSW17522500		
Deposit Account	111410		
Authorized User	ThuyQuyen Nguyen		
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:			
37 CFR 1.16 (National application filing, search, and examination fees)			

37 CFR 1.17 (Patent application and reexamination processing fees)

File Listing	:				
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
			185315		
1	Issue Fee Payment (PTO-85B)	IssueFee_MASIMO317C9.pdf	7ecdb4be486fb89ba9714a84d85a7dfae09 28131	no	1
Warnings:		ł			
Information:					
			21175		
2	Post Allowance Communication - Incoming	Comments_MASIMO317C9.pdf	302f3087ce2e094e60100313326fcdf0ac9b 1912	no	2
Warnings:				1	
Information:					
			49393		
3		IDS_MASIMO317C9.pdf	b2f09a50974ce9892cbf5b61b4e52a14872 ebbc3	yes	3
	Multir	eart Description/PDF files in .	zip description	1	
	Document De	scription	Start	Eı	nd
	Transmittal	Letter	1		2
	Information Disclosure Stater	nent (IDS) Form (SB08)	3	:	3
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Information:		-			
			30397		
4	Fee Worksheet (SB06)	fee-info.pdf	d79de9b4103ba302f0041996ef349ad4499 57fa9	no	2
Warnings:					

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

	ited States Paten	<u>it and Trademark Offici</u>	E UNITED STATES DEPAR United States Patent and Address: COMMISSIONER P.O. Box 1450 Alexandria, Virginia 2 www.uspto.gov	Trademark Office FOR PATENTS
APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/499,619	04/27/2017	Ammar Al-Ali	MASIMO.317C9	3723
-	7590 09/13/2017		EXAM	INER
KNOBBE, MAR	TENS, OLSON & BEA PORATION (MASIMO)		WINAKUR, E	RIC FRANK
2040 MAIN STR	· · /		ART UNIT	PAPER NUMBER
FOURTEENTH IRVINE, CA 926			3735	
INVINE, UA 920)14		NOTIFICATION DATE	DELIVERY MODE
			09/13/2017	ELECTRONIC

NOTICE OF NON-COMPLIANT INFORMATION DISCLOSURE STATEMENT

An Information Disclosure Statement (IDS) filed $\underline{\mathcal{O}} \cdot \underline{\mathcal{O}} \cdot \underline{\mathcal{O}$

The IDS is not compliant with 37 CFR 1.97(d) because:

The IDS lacks a statement as specified in 37 CFR 1.97(e).

□ The IDS lacks the fee set forth in 37 CFR 1.17(p).

The IDS was filed after the issue fee was paid. Applicant may wish to consider filing a petition to withdraw the application from issue under 37 CFR 1.313(c) to have the IDS considered. See MPEP 1308.

Bernice Crittenden

571-272-4200 or 1-888-786-0101 Application Assistance Unit Office of Data Management

PTO/SB/08 Equivalent

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI AFFEIGANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 33 OF 45	Attorney Docket No.	MASIMO.317C9

Examiner	Cite	Document Number	Publication		Pages, Columns, Lines Where
Initials	No.	Number - Kind Code (if known) Example: 1,234,567 B1	Date MM-DD-YYYY	Name	Relevant Passages or Relevant Figures Appear
	929	2009/0119330	05-01-2009	Sampath et al.	
	930	2009/0119843	05-14-2009	Rodgers et al.	
	931	2009/0124867	05-14-2009	Hirsch et al.	
	932	2009/0131759	05-21-2009	Sims et al.	
	933	2009/0143832	06-04-2009	Saba	
	934	2009/0157058	06-18-2009	Ferren et al.	
	935	2009/0171170	07-02-2009	Li et al.	
	936	2009/0171225	07-02-2009	Gadodia et al.	
	937	2009/0177090	07-09-2009	Grunwald et al.	
	938	2009/0182287	07-16-2009	Kassab	
	939	2009/0226372	09-10-2009	Ruoslahti et al.	
	940	2009/0247984	10-01-2009	Lamego et al.	
	941	2009/0264778	10-22-2009	Markowitz et al.	
	942	2009/0275813	11-05-2009	Davis	
	943	2009/0275844	11-05-2009	Al-Ali	
	944	2009/0281462	11-12-2009	Heliot et al.	
	945	2009/0299157	12-03-2009	Telfort et al.	
	946	2009/0309755	12-17-2009	Williamson er al.	
	947	2009/0322540	12-31-2009	Richardson et al.	
	948	2010/0004518	01-07-2010	Vo et al.	
	949	2010/0030040	02-04-2010	Poeze et al.	
	950	2010/0030094	02-04-2010	Lundback	
	951	2010/0036209	02-11-2010	Ferren et al.	
	952	2010/0069725	03-18-2010	Al-Ali	
	953	2010/0125217	05-20-2010	Kuo et al.	
	954	2010/0144627	06-10-2010	Vitek et al.	
•(6) applied 1ment,	955	2010/0185101	07-22-2010	Sakaí et al.	
/	956	2010/0198622	08-05-2010	Gajic et al.	
017	957	2010/0210958	08-19-2010	Manwaring et al.	

	Examiner Signature	Date Considered	
- [

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

T¹ - Place a check mark in this area when an English language Translation is attached. ALL REFERENCES CONSIDERED EXTST WHERE LINED THROUGH. /E.F.W/

PTO/SB/08 Equivalent

	Application No.	15/499619
INFORMATION DISCLOSURE	Filing Date	April 27, 2017
STATEMENT BY APPLICANT	First Named Inventor	Ammar Al-Ali
STATEMENT DI ALLEIOANT	Art Unit	2685
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 10 OF 45	Attorney Docket No.	MASIMO.317C9

F	0.4.4	Document Number	Publication		Pages, Columns, Lines Where
Examiner Initials	Cite No.	Number - Kind Code (if known) Example: 1,234,567 B1	Date MM-DD-YYYY	Name	Relevant Passages or Relevant Figures Appear
	262	6,650,917	11-18-2003	Diab et al.	
	263	6,650,939	11-18-2003	Takpke, II et al.	
	264	6,654,624	11-25-2003	Diab et al.	
	265	6,658,276	12-02-2003	Kianl et al.	
	266	6,661,161	12-09-2003	Lanzo et al.	
	267	6,663,570	12-16-2003	Mott et al.	
	268	6,671,531	12-30-2003	Al-Ali et al.	
	269	6,678,543	01-13-2004	Diab et al.	
	270	6,684,090	01-27-2004	Ali et al.	
	271	6,684,091	01-27-2004	Parker	
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7	289	6,760,607	07-06-2004	Al-Ali	
	290	6,766,188	07-20-2004	Soller	

Examiner Signature Date Considered

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

T¹ - Place a check mark in this area when an English language Translation is attached. ALL REFERENCES CONSIDERED EXTAPT WHERE LINED THROUGH. /E.F.W/



UNITED STATES PATENT AND TRADEMARK OFFICE

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P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/499,619	10/17/2017	9788735	MASIMO.317C9	3723

64735 7590 09/27/2017 KNOBBE, MARTENS, OLSON & BEAR, LLP MASIMO CORPORATION (MASIMO) 2040 MAIN STREET FOURTEENTH FLOOR IRVINE, CA 92614

ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment is 0 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site http://pair.uspto.gov for additional applicants):

Ammar Al-Ali, San Juan Capistrano, CA; MASIMO CORPORATION, Irvine, CA;

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The USA offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to encourage and facilitate business investment. To learn more about why the USA is the best country in the world to develop technology, manufacture products, and grow your business, visit <u>SelectUSA.gov</u>.

Please Direct All Correspondence to Customer Number 64735

REQUEST FOR CERTIFICATE OF CORRECTION

:	Ammar Al-Ali
:	15/499619
:	April 27, 2017
:	9,788,735
:	October 17, 2017
:	BODY WORN MOBILE MEDICAL PATIENT MONITOR
:	3723
	: : :

Commissioner for Patents Office of Data Management Attention: Certificates of Correction Branch P.O. Box 1450 Alexandria, VA 22313-1450

Dear Commissioner:

Enclosed for filing is a Certificate of Correction in connection with the above-identified patent.

Some of the errors cited in the Certificate of Correction appear to have been incurred through the fault of the PTO (see 35 USC § 254, 37 CFR § 1.322, and MPEP § 1480). However, because this may not apply to each item in the Certificate of Correction, the \$150 fee under 37 CFR § 1.20(a) is submitted herewith. Please charge any additional fees to our Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: January 25, 2018

By: /Scott Cromar/___

Scott A. Cromar Registration No. 65,066 Registered Practitioner Customer No. 64735 (949) 760-0404

27476827

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO.	: 9,788,735
APPLICATION NO.	: 15/499619
ISSUE DATE	: October 17, 2017
INVENTOR(S)	: Ammar Al-Ali

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In column 2 (page 11, item 56) at line 33, Under Other Publications, change /2012/ to --/2014/--.

In column 2 (page 11, item 56) at line 33, Under Other Publications, change -me- to ---be---.

In column 13 at line 29, In Claim 1, change "of the patient of the patient" to --of the patient--.

27476645

MAILING ADDRESS OF SENDER:

Scott A. Cromar KNOBBE, MARTENS, OLSON & BEAR, LLP 2040 Main Street, 14th Floor Irvine, California 92614 Page 1 of 1

Electronic Patent A	pp	lication Fee	Transmi	ittal	
Application Number:	154	199619			
Filing Date:	27-	Apr-2017			
Title of Invention:	BO	DY WORN MOBILE I	MEDICAL PATII	ENT MONITOR	
First Named Inventor/Applicant Name:	Am	ımar Al-Ali			
Filer:	Sco	ott Cromar			
Attorney Docket Number:	MA	SIMO.317C9			
Filed as Large Entity					
Filing Fees for Utility under 35 USC 111(a)					
Description		Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:					
Pages:					
Claims:					
Miscellaneous-Filing:					
Petition:					
Patent-Appeals-and-Interference:					
Post-Allowance-and-Post-Issuance:					
Certificate of correction		1811	1	150	150

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension-of-Time:				
Miscellaneous:				
	Tot	al in USD:) (\$)	150

Electronic A	Acknowledgement Receipt
EFS ID:	31604854
Application Number:	15499619
International Application Number:	
Confirmation Number:	3723
Title of Invention:	BODY WORN MOBILE MEDICAL PATIENT MONITOR
First Named Inventor/Applicant Name:	Ammar Al-Ali
Customer Number:	64735
Filer:	Scott Cromar/Christina Graul
Filer Authorized By:	Scott Cromar
Attorney Docket Number:	MASIMO.317C9
Receipt Date:	25-JAN-2018
Filing Date:	27-APR-2017
Time Stamp:	14:50:32
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes			
Payment Type	CARD			
Payment was successfully received in RAM	\$150			
RAM confirmation Number	012618INTEFSW14511500			
Deposit Account	111410			
Authorized User	Christina Graul			
The Director of the USPTO is hereby authorized to c	harge indicated fees and credit any overpayment as follows:			
37 CFR 1.16 (National application filing, search, and examination fees)				

37 CFR 1.17 (Patent application and reexamination processing fees)

File Listing:

Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.
			23526		
1	Request for Certificate of Correction	CoC_MAS317C9.pdf	cf186f53bb223fd34e69e52aabff4080154a6 1f6	no	2
Warnings:					
nformation:					
			30306		
2	Fee Worksheet (SB06)	fee-info.pdf	b28393bcb74611d368b22f145e277b455b d1f073	no	2
Warnings:					
nformation:					
		Total Files Size (in bytes)	5	3832	
characterized	edgement Receipt evidences receipt I by the applicant, and including pag described in MPEP 503.	•			
<u>New Applicat</u> If a new appli 1.53(b)-(d) an Acknowledge <u>National Stag</u> If a timely sub U.S.C. 371 and	ions Under 35 U.S.C. 111 cation is being filed and the applicat of MPEP 506), a Filing Receipt (37 CFF ement Receipt will establish the filing <u>le of an International Application und</u> omission to enter the national stage of d other applicable requirements a Fo e submission under 35 U.S.C. 371 wil	R 1.54) will be issued in due J date of the application. der 35 U.S.C. 371 of an international applicati orm PCT/DO/EO/903 indicati	course and the date s on is compliant with ng acceptance of the	g date (see hown on th the conditic application	37 CFR is ons of 35

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

 PATENT NO.
 : 9,788,735 B2

 APPLICATION NO.
 : 15/499619

 DATED
 : October 17, 2017

 INVENTOR(S)
 : Ammar Al-Ali

Page 1 of 1

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On the Title Page

In Column 2 (page 11, item (56)) at Line 33, Under Other Publications, change "/2012/" to --/2014/--.

In Column 2 (page 11, item (56)) at Line 33, Under Other Publications, change "-me-" to -- -be- --.

In the Claims

In Column 13 at Line 29, In Claim 1, change "of the patient of the patient" to --of the patient--.

Signed and Sealed this Twentieth Day of February, 2018

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Andrei Iancu Director of the United States Patent and Trademark Office