502267262 03/14/2013

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
MASAFUMI ITONAGA	12/11/2012
NORIHIRO IDA	11/20/2012

RECEIVING PARTY DATA

Name:	Panasonic Corporation	
Street Address:	1006 Oaza Kadoma, Kadoma-shi	
City:	Osaka	
State/Country:	JAPAN	
Postal Code:	571-8501	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13805376

CORRESPONDENCE DATA

Fax Number: 2029120774

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 2029123800

Email: ppc@us.panasonic.com

Correspondent Name: Panasonic Patent Center

Address Line 1: 1130 Connecticut Ave., N.W., Suite 1100
Address Line 4: Washington, DISTRICT OF COLUMBIA 20036

NAME OF SUBMITTER: Kazuko NAKAGAWA

Total Attachments: 2

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PATENT REEL: 029991 FRAME: 0648 13805376

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			. 15	ment Form 3.0 (Oct	
Panasonic Ref*: P284121-01		Application Se		·/	
1st Partner Name: FirstLaw P.C.	1st Partner Firm Ref: PB104043/MEW/PCT/US				
US Firm Name*: <u>Greenblum & Bernstein, P.L.(</u>	nstein, P.L.C. US Firm Ref:				
1	ASSIGN	MENT			
WHEREAS, the undersigned has (have) invented th	e invention entitled:				
Title of Invention: SENSOR APPARATUS					
1. For use when signing Do	eclaration prior to filing U	I.S. patent application (check onl	y one box below)	
(a)□ for which an application for U.S. patent h	as been executed	by the undersigned concu	urrently herev	with, or	
(b)□ for which an application for U.S. patent h (if Declaration & Assignment are signed on the same day, check (a) and n	as been executed of the blank; if the	on the following date(s):_ e Declaration was signed before this Assi	enment, enter the dat	e(s) on which you signed the De	, or
(c) for which an International Application has (for the PCT-US national entry, check only (e) and enter PCT application	n number in the right)	PCT Application No.		T/IB2011/001306	and,
2. For use v	vhen signing Declaration	n after filing U.S. patent application	on		
(d)□ for which an application for U.S. patent h	as been filed on:	Application Filing Date			and,
WHEREAS, Panasonic Corporation of 1006	, Oaza Kadoma, Kad	oma-shi, Osaka 571-8501, J	APAN, and		
as the United States) and in all countries foreign to disclosing said invention, including provisionals, thereof in the United States and all countries foreign priority created by this patent application under any relssues and reexamination certificates which may United States and in all countries foreign to the Unit The undersigned agree(s) to execute all pape all papers and documents and perform any act whis for Protection of Industrial Property or similar agree concerning this application or any and all Related A and producing evidence and proceeding with such i title and interest in and to said invention, this applic legal proceeding relating thereto and in support the with such applications as the Assignee(s) may deer The undersigned agree(s) to perform all affirm patent(s) to the Assignee(s) and to vest all rights he the undersigned if this Assignment had not been may the undersigned hereby authorize(s) and reissue patents, to issue any and all Letters Patent(s) and hereby covenants that the undersigned has ((have) not executed, and will not execute, any assign attorney(s) executed by the undersigned in connect The undersigned hereby grant(s) the Assignee(s) a further identification which may be necessary or of document. The undersigned hereby agree(s) that the ab The undersigned hereby agree(s) that the ab The undersigned hereby agree(s) that the ab The undersigned hereby agree(s) that this Aste United States. IN WITNESS WHEREOF, executed by the undersigned by the undersigned hereby agree(s) that this Aste the United States.	non-provisionals, conto the United States (treaty relating therefore be granted therefore, ed States for the full time necessary in connich may be necessary in connich may be necessary ements, all papers in applications thereof anterference, and for a ation and any and all ereof, for the benefit of necessary or experimentive acts which may ereby conveyed to the ade. If the Commissive acts which may ereby full right to congruent, sale, agreement transfer unto sation transfer unto sation with this application the appointed U.S desirable in order to ove obligations shall be considered.	nversions, divisions, continu (hereinafter designated as "Ri; and (iii) any and all Letters is, and all rights to sue for pasterm or terms thereof, ection with this application a y in connection with claims on eccessary in connection with nd to cooperate with the Assany and all litigations regarding Related Applications or Lettof Assignee(s), and also to estient. If y be necessary to obtain a great a signer of Patents, and official polication or any and all Related Application or any and all Related Application or any and all Related Assignee(s) the full and ion and for application or any and agent on and for application and agent comply with the rules of the apply to the undersigned botonstrued in accordance with	lations, contain lations, contain lations, contain latin lat	trations in part and ittions"), along with all iding all renewals, extending all renewals, extending all renewals, extending all renewals, extending the international Collective way possible in ourpose of protecting the refore, and to testifute assignments in columited States and any ame would have been an countries, whose does thereof to said Assend that the undersignation of the insert on this assignment of the recordation and collectively, appropriate jurisdictions.	reights of tensions, er, in the thereof, novention declared blaining the right, fy in any nnection y foreign theld by tuty is to dignee(s) ned has bower of this
Box2 (Each Inventor, please Sign and Date by	elow)	(f) Signature		(g) Date sig	ned
(e) First Name, Last Name	or / A	(i) digitators		Month, Date, Ye	

Box2	Box2 (Each Inventor, please Sign and Date below)			
	(e) First Name, Last Name	(f) Signature	(g) Date signed	
	(0) 1 1100 11011101		Month, Date, Year	
(1)	Masafumi ITONAGA	Masafumi Otonaga	Dec. 11, 2012	
 				
(2)	Norihiro IDA			
1				

Assignment Form 3.0 (Oct. 2008)

Panasonic Ref*: P284121-01	Application Serial No. 13/8/05376
1st Partner Name: FirstLaw P.C.	1st Partner Firm Ref: PB104043/MEW/PCT/US
US Firm Name*: <u>Greenblum & Bernstein, P.L.C.</u>	US Firm Ref:

ASSIGNMENT

WHEREAS, the undersigned has (have) invented the invention entitled:		
Box 1	•	
Title of Invention:		
SENSOR APPARATUS		
1. For use when signing Declaration prior to filing t	J.S. patent application (check on	ly one box below)
(a)□ for which an application for U.S. patent has been executed	by the undersigned conc	urrently herewith, or
(b) for which an application for U.S. patent has been executed (if Declaration & Assignment are signed on the same day, check (a) and make no entry in the blank: if the		, OF pament, enter the date(s) on which you signed the Declaration)
(c)⊠ for which an International Application has been filed as: (for the PCT-US national cutry, check only (c) and enter PCT application number in the right)	PCT Application No.	PCT/IB2011/001306 and,
2. For use when signing Declaration	n after filing U.S. patent applicati	on
(d)□ for which an application for U.S. patent has been filed on:	Application Filing Date	and,

WHEREAS, Panasonic Corporation of 1006, Oaza Kadoma, Kadoma-shi, Osaka 571-8501, JAPAN, and

its/their heirs, successors, legal representatives and assigns (hereinafter designated as "Assignee(s)") is/are desirous of acquiring the entire right, title, and interest in and to said invention and in and to any Letters Patent(s) that may be granted therefor.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged and intended to be legally bound hereby, the undersigned, by these presents, does sell, assign and transfer unto said Assignee(s) the entire and exclusive right, title and interest in and to; (i) said invention in the United States of America, its territories, dependencies and possessions (hereinafter designated as the United States) and in all countries foreign to the United States; and (ii) this patent application and any and all related patent application(s) disclosing said invention, including provisionals, non-provisionals, conversions, divisions, continuations, continuations-in-part and relssues thereof in the United States and all countries foreign to the United States (hereinafter designated as "Related Applications"), along with all rights of priority created by this patent application under any treaty relating thereto; and (iii) any and all Letters Patent(s), including all renewals, extensions, reissues and reexamination certificates which may be granted therefore, and all rights to sue for past and future infringement thereunder, in the United States and in all countries foreign to the United States for the full term or terms thereof.

The undersigned agree(s) to execute all papers necessary in connection with this application and any and all Related Applications thereof, all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property or similar agreements, all papers necessary in connection with any interference which may be declared concerning this application or any and all Related Applications thereof and to cooperate with the Assignee(s) in every way possible in obtaining and producing evidence and proceeding with such interference, and for any and all litigations regarding, or for the purpose of protecting the right, title and interest in and to said invention, this application and any and all Related Applications or Letters Patent(s) therefore, and to testify in any legal proceeding relating thereto and in support thereof, for the benefit of Assignee(s), and also to execute separate assignments in connection with such applications as the Assignee(s) may deem necessary or expedient.

The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States and any foreign patent(s) to the Assignee(s) and to vest all rights hereby conveyed to the Assignee(s) as fully and entirely as the same would have been held by the undersigned if this Assignment had not been made.

The undersigned hereby authorize(s) and request(s) the Commissioner of Patents, and officials of all foreign countries, whose duty is to issue patents, to issue any and all Letters Patent(s) resulting from said application or any and all Related Applications thereof to said Assignee(s) and hereby covenants that the undersigned has (have) full right to convey the entire interest herein assigned, and that the undersigned has (have) not executed, and will not execute, any assignment, sale, agreement or encumbrances in conflict herewith.

(have) not executed, and will not execute, any assignment, sale, agreement of endular and a modified the endular and the executed by the sale, assign and transfer unto said Assignee(s) the full and exclusive authority for revoking power of attorney(s) executed by the undersigned in connection with this application and for appointing a new power of attorney in place thereof. The undersigned hereby grant(s) the Assignee(s) and the appointed U.S. patent attorneys and agents the power to insert on this assignment any

The undersigned hereby grant(s) the Assignee(s) and the appointed U.S. patent attorneys and agents the power to insert on this assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent Office for recordation of this document.

The undersigned hereby agree(s) that the above obligations shall apply to the undersigned both individually and collectively.

The undersigned hereby agree(s) that this Assignment shall be construed in accordance with the law of the appropriate jurisdiction within the United States.

IN WITNESS WHEREOF, executed by the undersigned on the date(s) following the undersigned name(s) and signature(s).

Box2	(Each Inventor, please Sign and Date b	elow)	
	(e) First Name, Last Name	(f) Signature	(g) Date signed
(1)	Masafumi ITONAGA		Month, Date, Year
(2)	Norihiro IDA	Carrie Mu	Nov. 20, 20/2

□Check if additional paper(s) is/are attached. Total of ____ page is submitted.

PATENT REEL: 029991 FRAME: 0650