## 505271008 01/10/2019

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5317780

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

## **CONVEYING PARTY DATA**

Name	Execution Date
SHINYA MOTOKAWA	06/15/2016
DAISUKE KISHII	06/22/2016
KEISUKE SHIMIZU	06/15/2016
AKIRA TAKANO	06/15/2016

## **RECEIVING PARTY DATA**

Name:	PANASONIC INTELLECTUAL PROPERTY MANAGEMENT CO., LTD.	
Street Address: 1-61, SHIROMI 2-CHOME, CHUO-KU, OSAKA-SHI		
City:	OSAKA	
State/Country:	JAPAN	
Postal Code:	540-6207	

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number	
Application Number:	15126858	

## **CORRESPONDENCE DATA**

Fax Number:

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

**Email:** epas.pkp@ml.jp.panasonic.com

Correspondent Name: PASONA KNOWLEDGE PARTNER INC.

Address Line 1: 8F OBP PANASONIC TOWER

Address Line 2: 1-61, SHIROMI 2-CHOME, CHUO-KU

Address Line 4: OSAKA, JAPAN 540-6208

ATTORNEY DOCKET NUMBER:	P0623258US01
NAME OF SUBMITTER:	ASAMI KATO
SIGNATURE:	/Asami KATO/
DATE SIGNED:	01/10/2019

## **Total Attachments: 3**

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PATENT 505271008 REEL: 047947 FRAME: 0037

			Assignment Form 3.0 (Oct. 2008)
Panasonic Ref*: P0623258US01			al No. 15/126858
Japan Firm Name: PIPM Direct	<del></del>		P0623258US01
US Firm Name*: PPC (* must be filled)	<del></del>	US Firm Ref: _	
	ASSIGN	MENT	
WHEREAS, the undersigned has (have) invented	the invention entitled:		
Box 1 Title of Invention:			
BATTERY BLOCK			
1. For use when signing	Declaration prior to filing L	I.S. patent application (check onl	y one box below)
(a)□ for which an application for U.S. patent	has been executed	by the undersigned concu	urrently herewith, or
(b) or which an application for U.S. patent (if Declaration & Assignment are signed on the same day, check (a) and	has been executed d make no entry in the blank: if th	on the following date(s):_ e Declaration was signed before this Assist	, Of grament, enter the date(s) on which you signed the Declaration)
(c) for which an International Application had for the PCT-US national entry, check only (c) and enter PCT applica	tion number in the right)	PCT Application No.	PCT/JP2015/001182 and,
2. For use	e when signing Declaration	n after filing U.S. patent application	on
(d)□ for which an application for U.S. patent	has been filed on:	Application Filing Date	and,
WHEREAS, <u>Panasonic Intellectual Prope</u>	rty Management Co.	Ltd. of 1-61, Shiromi 2-cho	me, Chuo-ku, Osaka-shi, Osaka 540-6207
its/their heirs, successors, legal representatives ar title, and interest in and to said invention and in an NOW, THEREFORE, for good and valuable be legally bound hereby, the undersigned, by thes title and interest in and to; (i) said invention in the last 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 an reissues and reexamination certificates which mat United States and in all countries foreign to the United States and in all countries foreign to the United States and in all countries foreign to the United States and discuments and perform any act which revenues and documents and perform any act which revenues and protection of Industrial Property or similar agaconcerning this application or any and all Related and producing evidence and proceeding with such title and interest in and to said invention, this appliegal proceeding relating thereto and in support the with such applications as the Assignee(s) may der The undersigned agree(s) to perform all affit patent(s) to the Assignee(s) and to vest all rights the undersigned if this Assignment had not been in The undersigned his Assignment had not been in the undersigned his Assignment had not been in the undersigned his and hereby covenants that the undersigned has the undersigned his executed, and will not execute, any assignattorney(s) executed by the undersigned in connet the undersigned hereby grant(s) the Assignee(s) further identification which may be necessary or document.  The undersigned hereby agree(s) that the a The undersigned hereby agree(s) that the a The undersigned hereby agree(s) that the United States.  IN WITNESS WHEREOF, executed by the United States.	nd to any Letters Paten e consideration, the rec epresents, does sell, United States of Americo the United States; and non-provisionals, coing treaty relating theretory be granted therefore hited States for the full toers necessary in connich may be necessary in connication and any and all nereof, for the benefit of the proper in the pr	t(s) that may be granted ther eipt and sufficiency of which assign and transfer unto saic as, its territories, dependencial (ii) this patent application anversions, divisions, continu (hereinafter designated as "R; and (iii) any and all Letters is and all rights to sue for pasterm or terms thereof, ection with this application are in connection with claims on necessary in connection with the Assany and all litigations regarding Related Applications or Lettof Assignee(s), and also to exist a signer of Patents, and official polication or any and all Relatively the entire interest here ent or encumbrances in conficial side assignee(s) the full and on and for appointing a new patent attorneys and agents comply with the rules of the apply to the undersigned bottonstrued in accordance with the apply to the undersigned bottonstrued in accordance with the sustrued in accordance with the su	efor. are hereby acknowledged and intended to it Assignee(s) the entire and exclusive right, es and possessions (hereinafter designated and any and all related patent application(s) iations, continuations-in-part and reissues related Applications"), along with all rights of Patent(s), including all renewals, extensions and future infringement thereunder, in the and any and all Related Applications thereof, r provisions of the International Convention any interference which may be declared signee(s) in every way possible in obtaining and, or for the purpose of protecting the right, ers Patent(s) therefore, and to testify in any execute separate assignments in connection ant of a valid United States and any foreign tirely as the same would have been held by alls of all foreign countries, whose duty is to ted Applications thereof to said Assignee(s) in assigned, and that the undersigned has lict herewith. exclusive authority for revoking power of power of attorney in place thereof. In the power to insert on this assignment any at U.S. Patent Office for recordation of this an individually and collectively. The law of the appropriate jurisdiction within
Box2 (Each Inventor, please Sign and Date be			
(e) First Name, Last Name	٠ ا م	(f) Signature	(g) Date signed  Month, Date, Year
(1) Shinya MOTOKAWA	Shinya	- Hotokawa	June, 15, 2016
(2) Daisuke KISHII			Month, Date, Year
(3) Keisuke SHIMIZU	Heinbe	Shimin	Month, Date, Year  June 15, 2016  Month, Date, Year

 $\Box$ Check if additional paper(s) is/are attached. Total of  $\underline{\phantom{a}}$  page is submitted.

Akira TAKANO

(4)

PATENT REEL: 047947 FRAME: 0038

	Assignment Form 3.0 (Oct. 2008)
Panasonic Ref*: P0623258US01	Application Serial No. 15/126858
Japan Firm Name:PIPM_Direct	Japan Firm Ref:
US Firm Name*: PPC	US Firm Ref.
(* must be filled)	
ASSIG	NMENT
WHEREAS, the undersigned has (have) invented the invention entitled: Box 1	
Title of Invention: BATTERY BLOCK	
1. For use when signing Declaration prior to filing	U.S. patent application (check only one box below)
(a)□ for which an application for U.S. patent has been executed	by the undersigned concurrently 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 it  (c) for which an International Application has been filed as:  (for the PCT-US nauonal entry, check only (c) and enter PCT application number in the right)	he Declaration was signed before this Assignment, enter the date(s) on which you signed the Declaration  PCT Application No. PCT/JP2015/001182 and,
	on after filing U.S. patent application
(d) $\square$ for which an application for U.S. patent has been filed on:	Application Filing Date and,
title, and Interest in and to said invention and in and to any Letters Pater NOW, THEREFORE, for good and valuable consideration, the rebe legally bound hereby, the undersigned, by these presents, does sell, title and interest in and to; (i) said invention in the United States of Amerias the United States) and in all countries foreign to the United States; and disclosing said invention, including provisionals, non-provisionals, conthereof in the United States and all countries foreign to the United States priority created by this patent application under any treaty relating therefore united States and in all countries foreign to the United States for the full.  The undersigned agree(s) to execute all papers necessary in comall papers and documents and perform any act which may be necessar for Protection of Industrial Property or similar agreements, all papers concerning this application or any and all Related Applications thereof and producing evidence and proceeding with such interference, and for title and interest in and to said invention, this application and any and all legal proceeding relating thereto and in support thereof, for the benefit with such applications as the Assignee(s) may deem necessary or experatent(s) to the Assignee(s) and to vest all rights hereby conveyed to the undersigned if this Assignment had not been made.  The undersigned hereby authorize(s) and request(s) the Commississue patents, to issue any and all Letters Patent(s) resulting from said and hereby covenants that the undersigned has (have) full right to co (have) not executed, and will not execute, any assignment, sale, agreen The undersigned hereby does sell, assign and transfer unto suttorney(s) executed by the undersigned in connection with this applicat The undersigned hereby grant(s) the Assignee(s) and the appointed U.S further identification which may be necessary or desirable in order to document.  The undersigned hereby agree(s) that the above obligations shall	ceipt and sufficiency of which are hereby acknowledged and intended to assign and transfer unto said Assignee(s) the entire and exclusive right, ica, its territories, dependencies and possessions (hereinafter designated and (ii) this patent application and any and all related patent application(s) inversions, divisions, continuations, continuations-in-part and reissues (hereinafter designated as "Related Applications"), along with all rights of or and (iii) any and all Letters Patent(s), including all renewals, extensions, etc., and all rights to sue for past and future infringement thereunder, in the term or terms thereof.  The term or terms thereof.  The term or terms thereof.  The connection with claims or provisions of the International Convention necessary in connection with any interference which may be declared and to cooperate with the Assignee(s) in every way possible in obtaining any and all litigations regarding, or for the purpose of protecting the right, I Related Applications or Letters Patent(s) therefore, and to testify in any of Assignee(s), and also to execute separate assignments in connection dient.  They be necessary to obtain a grant of a valid United States and any foreign et Assignee(s) as fully and entirely as the same would have been held by the science of Patents, and officials of all foreign countries, whose duty is to application or any and all Related Applications thereof to said Assignee(s) nvey the entire interest herein assigned, and that the undersigned has ment or encumbrances in conflict herewith.  The analysis and agents the power to insert on this assignment any comply with the rules of the U.S. Patent Office for recordation of this apply to the undersigned both individually and collectively.

Box2 (Each Inventor, please Sign and Date below)						
	(e) First Name, Last Name	(f) Signature	(g) Date signed			
(1)	Shinya MOTOKAWA		Month, Date, Year			
(2)	Daisuke KISHII	Daisuke Kiskii	Month, Dale, Year  June 22, 2016			
(3)	Keisuke SHIMIZU		Month, Date, Year			
(4)	Akira TAKANO		Month, Date, Year			

 $\square$  Check if additional paper(s) is/are attached. Total of  $\underline{\hspace{0.4cm}}$  page is submitted.

Panasonic Ref*:	P0623258US01	Application Serial No
Japan Firm Name: _	PIPM Direct	Japan Firm Ref:
US Firm Name*:	PPC	US Firm Ref:

## **ASSIGNMENT**

WHEREAS, the undersigned has (have) invented the invention entitled:					
Box 1	-				
Title of Invention:					
BATTERY BLOCK					
For use when signing Declaration prior to filing U	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 on the following date(s):, or (if Declaration & Assignment are signed on the same day, check (a) and make no entry in the blank; if the Declaration was signed before this Assignment, 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 entry, check only (c) and enter PCT application number in the right)  PCT Application No. PCT/JP2015/001182 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 Intellectual Property Management Co., Ltd. of 1-61, Shiromi 2-chome, Chuo-ku, Osaka-shi, Osaka 540-6207 Japan

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 reissues 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.

The undersigned hereby does sell, 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 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

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 below)			
	(e) First Name, Last Name	(f) Signature	(g) Date signed	
(1)	Shinya MOTOKAWA		Month, Date, Year	
(2)	Daisuke KISHII		Month, Date, Year	
(3)	Keisuke SHIMIZU		Month, Date, Year	
(4)	Akira TAKANO	apira Jakano	Month. Date, Year June, 15, 2-16	

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

PATENT REEL: 047947 FRAME: 0040