507111699 02/03/2022

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT7158538

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
TATSUYA MASADA	09/10/2021
KENJI INAGAKI	09/06/2021
MASAHIDE MARUYAMA	09/13/2021

RECEIVING PARTY DATA

Name:	PANASONIC CORPORATION
Street Address:	1006, OAZA KADOMA, KADOMA-SHI
City:	OSAKA
State/Country:	JAPAN
Postal Code:	571-8501
Name:	SANYO ELECTRIC CO., LTD.
Street Address:	1-1, Sanyo-cho, Daito-shi
City:	OSAKA
State/Country:	JAPAN
Postal Code:	574-8534

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	17598675

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:	P1023498US01
NAME OF SUBMITTER:	TETSUO HIRABAYASHI
SIGNATURE:	/Tetsuo HIRABAYASHI/

PATENT REEL: 058883 FRAME: 0130

507111699

DATE SIGNED: 02/03/2022

Total Attachments: 3
source=Assignment 17598675(P1023498US01 Westerman)#page1.tif
source=Assignment 17598675(P1023498US01 Westerman)#page2.tif
source=Assignment 17598675(P1023498US01 Westerman)#page3.tif

PATENT REEL: 058883 FRAME: 0131

		Assignment Form (Oct. 20	14)
Panasonic Ref*: _	P1023498US01	Application Serial No	
Japan Firm Name:	PIPM Direct	Japan Firm Ref:	
US Firm Name*:		US Firm Ref:	

(* must be filled)

ASSIGNMENT

WHEREAS, the undersigned has (have) invented the invention entitled:

Box 1			
Title of Invention:			
SUPPLY DEVICE			
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.C. potent has been avacuted by the undersigned approximately because he			
(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 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 th	ne Declaration was signed before this Assignme	nt, enter the date(s) on which you signed the Declaration)	
(c)■ for which an International Application has been filed as:	DCT Application No.	DCT/ ID2020/040400 and	
(for the PCT-US national entry, check only (c) and enter PCT application number in the right)	PCT Application No.	PCT/JP2020/010499 and	
2. For use when signing Declaration after filing U.S. patent application			
(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 SANYO Electric Co., Ltd. of 1-1, Sanyo-cho, Daito-shi, Osaka 574-8534 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 b	elow)	
	(e) First Name, Last Name	(f) Signature	(g) Date signed
(1)	Tatsuya MASADA	/Tatsuya Masada/	Month, Date, Year Sep 10 .2021
(2)	Kenji INAGAKI		Month, Date, Year
(3)	Masahide MARUYAMA		Month, Date, Year
(4)			Month, Date, Year

□Check if additional paper(s) is/are attached. Total of __1_ page(s) is/are submitted.

Assignment Form (Oct. 2014)

		Assignment Form (Oct. 2014)	
Panasonic Ref*: _	P1023498US01	Application Serial No	
Japan Firm Name:	PIPM Direct	Japan Firm Ref:	
US Firm Name*:		US Firm Ref:	

Assignment Form (Oct. 2014)

(* must be filled)

ASSIGNMENT

WHEREAS, the undersigned has (have) invented the invention entitled:

Box 1			
Title of Invention:			
SUPPLY DEVICE			
 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 on the following date(s):, o			
(if Declaration & Assignment are signed on the same day, check (a) and make no entry in the blank; if th	ne Declaration was signed before this Assignme	nt, enter the date(s) on which you signed the Declaration)	
(c)∎ for which an International Application has been filed as:	PCT Application No.	PCT/JP2020/010499 and	
(for the PCT-US national entry, check only (c) and enter PCT application number in the right)	To Try production 146.		
2. For use when signing Declaration after filing U.S. patent application			
(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 SANYO Electric Co., Ltd. of 1-1, Sanyo-cho, Daito-shi, Osaka 574-8534 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 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)	Tatsuya MASADA		Month, Date, Year
(2)	Kenji INAGAKI	/Kenji INAGAKI/	Month, Date, Year Sep 6,2021
(3)	Masahide MARUYAMA		Month, Date, Year
(4)			Month, Date, Year

□Check if additional paper(s) is/are attached. Total of __1_ page(s) is/are submitted.

PATENT REEL: 058883 FRAME: 0133

	Assignment Form (Oct. 2014)	
No		

Panasonic Ref*: _	P1023498US01	_
Japan Firm Name:	PIPM Direct	
US Firm Name*:		

Application Serial Japan Firm Ref: __ US Firm Ref:

(* must be filled)

ASSIGNMENT

WHEREAS, the undersigned has (have) invented the invention entitled:

Box 1				
Title of Invention:				
SUPPLY DEVICE				
1. For use when signing Declaration prior to filing U.S. patent application (check only one box below)				
(a) – for which an application for LLC, nates the bean executed by the undersigned consumently because he are				
(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 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:	DCT Application No.	PCT/JP2020/010499 and		
(for the PCT-US national entry, check only (c) and enter PCT application number in the right)	PCT Application No.			
2. For use when signing Declaration after filing U.S. patent application				
 (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 SANYO Electric Co., Ltd. of 1-1, Sanyo-cho, Daito-shi, Osaka 574-8534 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

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)	Tatsuya MASADA		Month, Date, Year
(2)	Kenji INAGAKI		Month, Date, Year
(3)	Masahide MARUYAMA	/Masahide MARUYAMA/	Month, Date, Year Sep 13, 2021
(4)			Month, Date, Year

□Check if additional paper(s) is/are attached. Total of __1_ page(s) is/are submitted.

PATENT REEL: 058883 FRAME: 0134