504687309 12/14/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4734031

SUBMISSION TYPE:NEW ASSIGNMENTNATURE OF CONVEYANCE:ASSIGNMENT		NEW ASSIGNMENT	
		ASSIGNMENT	
CONVEYING PARTY	' DATA		
		Name	Execution Date
YUSUKE KOBAYASI	-11		12/11/2017
MANABU TAKEI			12/12/2017
SHINSUKE HARADA	l		12/11/2017
Name: Street Address:		ECTRIC CO., LTD. IABESHINDEN, KAWASAKI-KU	
	1-1 TAN		
Street Address:	1-1 TAN	IABESHINDEN, KAWASAKI-KU	
Street Address: City:	1-1 TAN KAWAS	IABESHINDEN, KAWASAKI-KU AKI-SHI, KANAGAWA	
Street Address: City: State/Country:	1-1 TAN KAWAS JAPAN 210-953	IABESHINDEN, KAWASAKI-KU AKI-SHI, KANAGAWA 30 JAL INSTITUTE OF ADVANCED INDUS	STRIAL SCIENCE AND

Street Address:	3-1, KASUMIGASEKI 1-CHOME, CHIYODA-KU
City:	ТОКҮО
State/Country:	JAPAN
Postal Code:	100-8921

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15841461

CORRESPONDENCE DATA

Fax Number:	(202)	408-0924
		e-mail address first; if that is unsuccessful, it will be sent nat is unsuccessful, it will be sent via US Mail.
Phone:	202-3	371-8976
Email:	firm@	Prabinberdo.com
Correspondent Name:	RABI	N & BERDO, P.C.
Address Line 1:	1101	14TH ST., N.W., SUITE 500
Address Line 4:	WAS	HINGTON, D.C. 20005
ATTORNEY DOCKET NUMBER	1:	ASA-223
NAME OF SUBMITTER:		ROBERT H. BERDO, JR.
SIGNATURE:		/Robert H. Berdo, Jr./

DATE SIGNED:	12/14/2017
	This document serves as an Oath/Declaration (37 CFR 1.63).
Total Attachments: 4	
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ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT

WHEREAS <u>Yusuke KOBAYASHI</u>, <u>Manabu TAKEI and Shinsuke HARADA</u>, hereinafter referred to collectively as the assignor and inventor, has invented a certain improvement relating to

SEMICONDUCTOR DEVICE AND METHOD OF MANUFACTURING SEMICONDUCTOR

DEVICE,

[X] said application being attached hereto;

[] said application having been filed in the United States Patent and Trademark Office on ______, as Application Serial No.______, and was amended on _______(if applicable);

[] the specification of which was filed under the Patent Cooperation Treaty on _____

Serial No. _____, the United States of America being designated.

AND WHEREAS FUJI ELECTRIC CO., LTD., and NATIONAL INSTITUTE OF ADVANCED INDUSTRIAL SCIENCE AND TECHNOLOGY, hereinafter referred to as the assignees or applicants, are desirous of acquiring the entire right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof;

NOW THIS WITNESSETH, that for and in consideration of One Dollar (\$1.00), and other good and valuable consideration paid by said assignee to said assigner, the receipt of which is hereby acknowledged, said assigner hereby assigns, sells and transfers to said assignee, and said assignee's successors and assigns, the full and exclusive right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof; said assignee, and said assignee's successors and assigns, to have, hold, exercise and enjoy the said application, including any and all divisions and continuations thereof, and the said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof; which may be granted therefor, including any and all renewals, reissues and prolongations thereof, with all the rights, powers, privileges and advantages in anywise arising from or appertaining thereto, for and during the term or terms of any and all such patents when granted, including any and all renewals, reissues and prolongations thereof, in a sample and beneficial a manner as the said assignee, and said assignee's successors and assigns, in as ample and beneficial a manner as the said assigner might or could have held and enjoyed the same, if this assignment had not been made.

AND said assignor hereby agrees to perform, upon the request of said assignee, or said assignee's successors or assigns, any and all acts relating to the obtaining or to the asserting of said patents, including any and all renewals, reissues and prolongations thereof.

AND said assignor authorizes and requests the Commissioner of Patents and Trademarks to issue. Letters Patent on said application, and on any and all divisions and continuations thereof, to said assignee, and said assignee's successors and assigns, in accordance herewith.

As an above-named inventor, I hereby declare that the above-identified application was made or authorized to be made by me, and 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.

Address all correspondence and telephone calls to Rabin & Berdo, P.C., 1101 14th Street, N.W., Suite

PATENT REEL: 044394 FRAME: 0538

WITNESS:	ASSIGNOR (SOLE OR FIRST INVENTOR):
Signature:	Signature:
Name:	Legal Name: Yusuke KOBAYASHI
Address:	Date:
, ,	
WITNESS:	ASSIGNOR (SECOND INVENTOR):
Signature:	Signature:
Name:	Legal Name: Manabu TAKEI
Address:	Date:
	<u> </u>
WITNESS:	ASSIGNOR (THIRD INVENTOR):
Signature:	Signature: Shinshe Garada
Name:	Legal Name: Shinsuke HARADA
Address:	

RABIN & BERDO, P.C., Washington, D.C.

PATENT REEL: 044394 FRAME: 0539

Continued – Page 2 ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT

500, Washington, D.C. 20005, Telephone: (202) 371-8976; Fax: (202) 408-0924, Customer No. 23995.

WITNESS:	ASSIGNOR (SOLE OR FIRST INVENTOR):
Signature:	Signature: <u>Yusiyke kobayashi</u>
Name:	Legal Name: Yusuke KOBAYASHI
Address:	Date: December, 11, 2017
WITNESS:	ASSIGNOR (SECOND INVENTOR):
Signature:	Signature:
Name:	Legal Name: Manabu TAKEI
Address:	Date:
WITNESS:	ASSIGNOR (THIRD INVENTOR):
Signature:	Signature:
Name:	Legal Name: Shinsuke HARADA
Address:	Date:

RABIN & BERDO, P.C., Washington, D.C.

PATENT REEL: 044394 FRAME: 0540

ASSIGNMENT OF AND DECLARA	Continued – Page 2 ATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT		
500, Washington, D.C. 20005, Telephone: (202) 371-8976; Fax: (202) 408-0924, Customer No. 23995.			
WITNESS:	ASSIGNOR (SOLE OR FIRST INVENTOR):		
Signature:	Signature:		
Name:	Legal Name: Yusuke KOBAYASHI		
Address:	Date:		
WITNESS:	ASSIGNOR (SECOND INVENTOR):		
Signature:	Signature: Manabu Taker		
Name:	Legal Name: Manabu TAKEI		
Address:			
WITNESS:	ASSIGNOR (THIRD INVENTOR):		
Signature:	Signature:		
Name:			
Address:			

RABIN & BERDO, P.C., Washington, D.C.

PATENT REEL: 044394 FRAME: 0541

RECORDED: 12/14/2017