504801013 03/01/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 EPAS ID: PAT4847745 Stylesheet Version v1.2

SUBMISSION TYPE:NEW ASSIGNMENTNATURE OF CONVEYANCE:ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
MASANOBU IWAYA	02/08/2018
AKIMASA KINOSHITA	02/08/2018
SHINSUKE HARADA	02/08/2018
YASUNORI TANAKA	02/09/2018

RECEIVING PARTY DATA

Name:	FUJI ELECTRIC CO., LTD.		
Street Address: 1-1 TANABESHINDEN, KAWASAKI-KU			
City:	KAWASAKI-SHI, KANAGAWA		
State/Country:	JAPAN		
Postal Code:	210-9530		

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15909977

CORRESPONDENCE DATA

Fax Number: (202)408-0924

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.

Phone: 202-371-8976

Email: firm@rabinberdo.com **Correspondent Name:** RABIN & BERDO, P.C.

Address Line 1: 1101 14TH ST., N.W., SUITE 500

Address Line 4: WASHINGTON, D.C. 20005

ATTORNEY DOCKET NUMBER:	ASA-228BC1
NAME OF SUBMITTER:	ROBERT H. BERDO, JR.
SIGNATURE:	/Robert H. Berdo, Jr./
DATE SIGNED:	03/01/2018
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 6

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PATENT REEL: 045086 FRAME: 0312

Attorney	Reference:	
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ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT

WHEREAS Masanobu IWAYA, Akimasa KINOSHITA, Shinsuke HARADA and Yasunori TANAKA, hereinafter referred to collectively as the assignor and inventor, has invented a certain improvement relating to

SEMICONDUCTOR DEVICE AND METHOD OF MANUFACTURING SEMICONDUCTOR DEVICE,

[] said ap	plication bein	g attache	d here	to;									
[] said	application	having	been	filed	in	the	United	States	Patent	and	Trademark	Office	on
,	as Applicat	ion Seria	l No		and	was	amended	on					_(if
applicable);												
[X] the spe	ecification of	which wa	s filed	under	the	Paten	t Cooper	ation Tr	eaty on _	Sep	otember 8, 20	16	,
Serial No.	PCT/JP2016	5/076418	. the	United	Sta	ites o	f Americ	a being	designat	ed.			

AND WHEREAS <u>FUJI ELECTRIC CO., LTD.</u> 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 assignor, the receipt of which is hereby acknowledged, said assignor 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, 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, for the use and benefit of said assignee, and said assignee's successors and assigns, in as ample and beneficial a manner as the said assignor 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

Attorney	Reference:	
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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: Masanopu Iwaya
Name:	Legal Name: Masanobu IWAYA
Address:	Date: February 8. 2018
WITNESS:	ASSIGNOR (SECOND INVENTOR):
Signature:	Signature: Akimasa Kinoshi1a
Name:	Legal Name: Akimasa KINOSHITA
Address:	~ .~
WITNESS:	ASSIGNOR (THIRD INVENTOR):
Signature:	Signature:
Name:	Legal Name: Shinsuke HARADA
Address:	Date:
WITNESS:	ASSIGNOR (FOURT HINVENTOR):
Signature:	
Name:	
Address:	

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

Attorney Reference:	
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ASSIGNMENT OF AND DECLARATION FOR APPLICATION FOR UNITED STATES LETTERS PATENT

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apı	plio	cable));												
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Se	rial	No.	PCT/JP2016	6/076418	, the	United	d Sta	ites o	f Americ	a being	designate	ed.			

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

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WITNESS:	ASSIGNOR (SOLE OR FIRST INVENTOR):
Signature:	Signature:
Name:	Legal Name: Masanobu IWAYA
Address:	Date:
WITNESS:	ASSIGNOR (SECOND INVENTOR):
Signature:	Signature:
Name:	Legal Name: Akimasa KINOSHITA
Address:	
WITNESS: Signature:	ASSIGNOR (THIRD INVENTOR): Signature: Shinsh / Landa
Name:	
Address:	Date: 8 Feb, 2018
WITNESS:	ASSIGNOR (FOURT HINVENTOR):
Signature:	·
Name:	
Address:	

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

Attorney Reference:	
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applicable)				·	wii ci	mas t	·	VII					(,
[X] the spe	cification of	which w	as filed	under	the l	Paten	t Cooper	ation Tr	eaty on _	Sej	otember 8, 20	16	,
Serial No.	PCT/JP2016	6/076418	, the	United	l Sta	tes o	f Americ	a being	designat	ed.			

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PATENT REEL: 045086 FRAME: 0317

Attorney Reference:

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:
Name:	
Address:	
WITNESS:	ASSIGNOR (SECOND INVENTOR):
Signature:	Signature:
Name:	Legal Name: Akimasa KINOSHITA
Address:	
WITNESS:	ASSIGNOR (THIRD INVENTOR):
Signature:	
Name:	
Address:	
WITNESS:	ASSIGNOR (FOURT HINVENTOR):
Signature:	Signature: <u>Jaumou Fanaka</u>
Name:	Legal Name: Yasunori TANAKA
Address:	∧ □ /

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

PATENT

REEL: 045086 FRAME: 0318