505284000 01/17/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5330774

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
NAOHIRO OGUSHI	12/27/2018
KOICHI TAGUCHI	12/27/2018

RECEIVING PARTY DATA

Name:	MITSUBISHI ELECTRIC CORPORATION	
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State/Country:	JAPAN	
Postal Code:	100-8310	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16318537

CORRESPONDENCE DATA

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using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

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Correspondent Name: STUDEBAKER & BRACKETT PC
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Address Line 2: SUITE 300

Address Line 4: TYSONS, VIRGINIA 22102

ATTORNEY DOCKET NUMBER:	004700-ME0354	
NAME OF SUBMITTER:	TIM L. BRACKETT, JR.	
SIGNATURE:	/Tim L. Brackett, Jr./	
DATE SIGNED:	01/17/2019	
	This document serves as an Oath/Declaration (37 CFR 1.63).	

Total Attachments: 3

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> PATENT REEL: 048049 FRAME: 0979

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バフ電 651360US01 T6521US



Attorney Docket No. _____

COMBINED DECLARATION (37 CFR 1.63) AND ASSIGNMENT OF APPLICATION FOR UNITED STATES LETTERS PATENT

Title of invention:	
SEMICONDUCTOR DEVICE	
私は、以下に記名された発明者として、ここに下 記の通り宣言する:	As a below named inventor, I hereby declare that:
本宣言書は、以下の出願に対するものである:	This declaration is directed to:
□ 添付された出願、あるいは、 □ 米国出願番号またはPCT国際出願番号は、 □ であり、且つ の日に出願された出願 (該当する場合)	☐ The attached application, or ☐ United States application or PCT international application number PCT/JP2016/085007 filed on November 25, 2016
上記出願書(明細書及び図面)は、私が作成したものか、あるいは私がその作成を許可したものである。	The above-identified application was made or authorized to be made by me.
私は、本米国出願の請求範囲で記載された発明に 対する原発明者であるか、或いは、原共同発明者 であると信じている。	I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.
私は、ここでの宣誓または陳述において故意に偽 りを述べた場合、合衆国法典第18巻第1001条に基 づき、罰金あるいは5年以下の懲役、または、両	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.
方の懲罰を受けることを認める。	STATEMENT OF ACCURATE TRANSLATION IN ACCORDANCE WITH 37 CFR 1.69(b):
	The Declaration and Assignment for Patent and Design Applications is an accurate translation of the corresponding English language Declaration and Assignment for Patent and Design Applications
	Signature:
	Date: <u>11/15/2012</u>

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WHEREAS the undersigned, hereinafter referred to as the assignor, has invented a certain improvement relating to the above identified application.

The inventor declaration for said application is combined herewith.

[×] said application to be filled in the United States Patent and Trademark Office;

[] said application having been filled in the United States Patent and Trademark Office on, ______ authorization being hereby given to the practitioners associated with STUDEBAKER & BRACKETT PC's CUSTOMER NUMBER 78198, to insert here in parentheses (Application Serial No.______) the application serial number of said application when known;

[] said application having been filled under the Patent Cooperation Treaty on ______, as Serial No. ______, the United States of America being designated.

AND WHEREAS Mitsubishi Electric Corporation of 7-3, Marunouchi 2-chome, Chiyoda-ku, Tokyo 100-8310, Japan, hereinafter referred to as the assignee, is 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, 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, 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.

The undersigned hereby grants the law firm of STUDEBAKER & BRACKETT PC the power to insert on the Assignment portion of this combined Declaration and Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office for recordation of this document.

This combined Declaration and Assignment has been executed by the undersigned on the date opposite the undersigned name.

発明者氏名/ Legal Name of Inventor Naohiro OGUSHI	
発明者の署名/ Signature 大学 直 私	目付/Date 27 December 开机, 2018
	Pecular 27, 2018 N.O.

SUPPLEMENTAL SHEET FOR DECLARATION AND ASSIGNMENT 宣言書ならびに譲渡証の補足シート

ADDITIONAL INVENTOR(S) Supplemental Sheet Page 1 of 1 追加の発明者 補足シート1/ページ

発明者氏名/ Legal Name of Inventor		
Koichi TAGUCHI		
発明者の署名/ Signature コー 日	目付/ Date 、 /	
発明者の署名/ Signature 田口 昊一	December 27, 2018	
12. — 10	December 177	
発明者氏名/ Legal Name of Inventor		
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発明者氏名/ Legal Name of Inventor		
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発明者氏名/ Legal Name of Inventor		
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発明者氏名/ Legal Name of Inventor		
Payta Popt Legal Name of inventor	•	
発明者の署名/ Signature	日付/ Date	
発明者氏名/ Legal Name of Inventor		
WHILE THE R L OL		
発明者の署名/ Signature	日付/ Date	
発明者氏名/ Legal Name of Inventor		
Applies to Agr. reader Lightle of Illineurol.		
発明者の署名/ Signature	目付/ Date	
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RECORDED: 01/17/2019