07/10/2018 504995633

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5042381

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
RYOJI TOMOKAGE	06/22/2018
YASUHIRO OZUCHI	06/22/2018
MASAHIRO SHIMADA	06/22/2018
SEIICHI GOTO	06/22/2018
NAOKI HONISHI	06/04/2018
TAKASHI OMURA	06/04/2018

RECEIVING PARTY DATA

Name:	HONDA MOTOR CO., LTD.
Street Address:	1-1, MINAMI-AOYAMA 2-CHOME
City:	MINATO-KU, TOKYO
State/Country:	JAPAN
Postal Code:	107-8556
Name:	MITSUBISHI ELECTRIC CORPORATION
Name: Street Address:	MITSUBISHI ELECTRIC CORPORATION 7-3, MARUNOUCHI 2-CHOME
Street Address:	7-3, MARUNOUCHI 2-CHOME

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16030922

CORRESPONDENCE DATA

Fax Number: (216)696-8731

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: 216-696-8730

Email: epas@thepatentattorneys.com AMIN, TUROCY & WATSON, LLP **Correspondent Name:** Address Line 1: 57TH FLOOR, KEY TOWER

127 PUBLIC SQUARE Address Line 2: Address Line 4: CLEVELAND, OHIO 44114

REEL: 046301 FRAME: 0792 504995633

PATENT

ATTORNEY DOCKET NUMBER:	TOHOP227US
NAME OF SUBMITTER:	GREGORY TUROCY
SIGNATURE:	/Greg Turocy/
DATE SIGNED:	07/10/2018
	This document serves as an Oath/Declaration (37 CFR 1.63).
Total Attachments: 4 source=DEC227#page1.tif source=DEC227#page2.tif source=DEC227#page3.tif source=DEC227#page4.tif	

PATENT REEL: 046301 FRAME: 0793

COMBINED DECLARATION AND ASSIGNMENT FOR U.S. PATENT APPLICATION USING AN APPLICATION DATA SHEET

DECLARATION

As a below named inventor, I hereby declare that:

I believe I am the original inventor or an original joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled:

Title:	IRCUIT UNIT		
the application of	of which is attached hereto unless the fe	ollowing is checked	
was filed or	as United States app	ication Serial No.	or
as described and	claimed in PCT International Applica	tion No.	filed
	and amended on		
The above-ident	ified application was made or authoriz	ed to be made by me.	
Please direct all	communications to the following addr	ess:	
the address as	ssociated with Customer Number 236.	23, and direct telephone	calls to

Gregory Turocy of Amin, Turocy & Watson, LLP at 216-696-8730.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. Section 1001 by fine or imprisonment of not more than five (5) years, or both.

ASSIGNMENT

For good and valuable consideration received of the hereinafter named assignee, receipt of which is hereby acknowledged, the undersigned hereby sell and assign to

HONDA MOTOR CO., LTD.

a corporation of Japan, having a business address at 1-1, Minami-Aoyama 2-chome, Minato-ku, Tokyo 107-8556, JAPAN, its successors and assigns, the entire right, title and interest, so far as concerns the United States and the Territories and Possessions thereof and all foreign countries, in and to the inventions titled above for which application for United States Letters Patent is executed by the undersigned on the date below and is being filed concurrently herewith, said application for United States Letters Patent, any and all other applications for Letters Patent on said inventions in countries foreign to the United States, including all divisional, renewal, substitute, continuation, Convention applications, reissue, reexamination, supplemental examination, inter partes review, post grant review, or other procedures thereof for the full term or terms for which the same may be granted based in whole or in part upon said inventions or upon said applications, and any and all Letters Patent and reissues and extensions of Letters Patent granted for said inventions or upon said applications, and every priority right that is or may be predicated upon or arise from said inventions, said applications and said

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Letters Patent; said assignee being hereby authorized to file patent applications in any or all countries on any or all said inventions in the name of the undersigned or in the name of said assignee or otherwise as said assignee may deem advisable, under the International Convention or otherwise; the Commissioner of Patents and Trademarks of the United States of America and the empowered officials of all other governments being hereby authorized to issue or transfer all said Letters Patent to said assignee in accordance herewith; this assignment being under covenant, not only that full power to make the same is had by the undersigned, but also that such assigned right is not encumbered by any grant, license, or other right heretofore given, and that the undersigned will do all acts reasonably serving to assure that said inventions, patent applications and Letters Patent shall be held and enjoyed by said assignee as fully and entirely as the same could have been held and enjoyed by the undersigned if this assignment had not been made, and particularly to execute and deliver to said assignee all lawful documents including petitions, specifications, oaths, assignments, invention disclaimers, and lawful affidavits in form and substance which may be requested by said assignee, to furnish said assignee with all facts relating to said inventions or the history thereof and any and all documents, photographs, models, samples or other physical exhibits which may be useful for establishing the facts of conception, disclosure and reduction to practice of said inventions, and to testify in any proceedings relating to said inventions, patent applications and Letters Patent.

The undersigned hereby appoint, request, and grant power to the following law firm to insert on this Assignment 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, for example, the U.S. Serial No. and filing date.

Amin, Turocy & Watson, LLP, 57th Floor - Key Tower, 127 Public Square, Cleveland, Ohio 44114.

Hereby executed below by the undersigned Assignor(s) on the date indicated:

Legal name of sole or first inventor: Ryoji TOMOKAGE		
Inventor's signature: Ryoji Tomokogu		
Legal name of second inventor: Yasuhiro 02UCHI		
Inventor's signature: Yosuhiha Ozuski	Date:	
Legal name of third inventor: Masabiro SHIMADA		
Inventor's signature: <u>Masahiro Shimada</u>		
Legal name of fourth inventor: Selichi GOTO		
Inventor's signature: Seinch Goto		

COMBINED DECLARATION AND ASSIGNMENT FOR U.S. PATENT APPLICATION USING AN APPLICATION DATA SHEET

DECLARATION

As a below named inventor, I hereby declare that:

I believe I am the original inventor or an original joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled:

Title: DRIVE CIRCUIT	UNIT		ommunicos
the application of which	is attached hereto unless the	following is checked	
was filed on	as United States app	plication Serial No.	or
	as United States app d in PCT International Applic		filed
OB	and amended on	(if any).	
The above-identified ap	plication was made or authori	zed to be made by me.	
Please direct all commu	inications to the following add	iress:	

the address associated with Customer Number 23623, and direct telephone calls to Gregory Turocy of Amin, Turocy & Watson, LLP at 216-696-8730.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. Section 1001 by fine or imprisonment of not more than five (5) years, or both.

ASSIGNMENT

For good and valuable consideration received of the hereinafter named assignee, receipt of which is hereby acknowledged, the undersigned hereby sell and assign to

Mitsubishi Electric Corporation

a corporation of Japan, having a business address at 7-3, Marunouchi 2-chome, Chiyoda-ku, Tokyo 100-8310, JAPAN, its successors and assigns, the entire right, title and interest, so far as concerns the United States and the Territories and Possessions thereof and all foreign countries, in and to the inventions titled above for which application for United States Letters Patent is executed by the undersigned on the date below and is being filed concurrently herewith, said application for United States Letters Patent, any and all other applications for Letters Patent on said inventions in countries foreign to the United States, including all divisional, renewal, substitute, continuation, Convention applications, reissue, reexamination, supplemental examination, inter partes review, post grant review, or other procedures thereof for the full term or terms for which the same may be granted based in whole or in part upon said inventions or upon said applications, and any and all Letters Patent and reissues and extensions of Letters Patent granted for said inventions or upon said applications, and every priority right that is or may be predicated upon or arise from said inventions, said applications and said Letters Patent;

said assignee being hereby authorized to file patent applications in any or all countries on any or all said inventions in the name of the undersigned or in the name of said assignee or otherwise as said assignee may deem advisable, under the International Convention or otherwise; the Commissioner of Patents and Trademarks of the United States of America and the empowered officials of all other governments being hereby authorized to issue or transfer all said Letters Patent to said assignee in accordance herewith; this assignment being under covenant, not only that full power to make the same is had by the undersigned, but also that such assigned right is not encumbered by any grant, license, or other right heretofore given, and that the undersigned will do all acts reasonably serving to assure that said inventions, patent applications and Letters Patent shall be held and enjoyed by said assignee as fully and entirely as the same could have been held and enjoyed by the undersigned if this assignment had not been made, and particularly to execute and deliver to said assignee all lawful documents including petitions, specifications, oaths, assignments, invention disclaimers, and lawful affidavits in form and substance which may be requested by said assignee, to furnish said assignee with all facts relating to said inventions or the history thereof and any and all documents, photographs, models, samples or other physical exhibits which may be useful for establishing the facts of conception, disclosure and reduction to practice of said inventions, and to testify in any proceedings relating to said inventions, patent applications and Letters Patent.

The undersigned hereby appoint, request, and grant power to the following law firm to insert on this Assignment 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, for example, the U.S. Serial No. and filing date.

Amin, Turocy & Watson, LLP, 57th Floor - Key Tower, 127 Public Square, Cleveland, Ohio 44114.

Hereby executed below by the undersigned Assignor(s) on the date indicated:

Legal name of fifth inventor: Nacki. HONISHI	
Inventor's signature: <u>////////////////////////////////////</u>	Date: <u>June 4, 2018</u>
Legal name of sixth inventor: Takashi OMURA	
Inventor's signature: 14 Kaski OMURA	Date: June 4, 20/8