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PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	

CONVEYING PARTY DATA

Name	Execution Date
Kazuhiko YAMADA	03/13/2012
Tomoaki RYU	03/15/2012

RECEIVING PARTY DATA

Name:	Mitsubishi Electric Corporation	
Street Address:	7-3, Marunouchi 2-chome, Chiyoda-ku	
City:	Tokyo	
State/Country:	JAPAN	
Postal Code:	100-8310	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13513521

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ATTORNEY DOCKET NUMBER: 1190-0819PUS1

NAME OF SUBMITTER: Chad J. Billings

Total Attachments: 2

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PATENT

REEL: 028311 FRAME: 0135

BIRCH, STEWART, KOLASCH & BIRCH, LLP

UNITED STATES PATENT RIGHTS, OR UNITED STATES PLUS ALL FOREIGN PATENT RIGHTS

ASSIGNMENT

	Application No. 13/513,521		Filed June 1, 2012		
Insert Name(s) of Inventor(s)					
02 212 T VIII (U)	WHEREAS.	Kazuhiko YAMADA	; Tomoaki RYU		
			;		
			<u> </u>		
		.,	;		
Insert Title	•		rtain new and useful improvements in		
of Invention	-	etters Patent of the United States o	f America has been executed by the		
Insert Date of Signing of Application	on March 13, 2012, and March 15, 2012 ; and				
Insert Name of Assignee	WHEREAS,Mitsubishi Electric Corporation				
Insert Address of Assignee	7-3, Marunouchi	2-chome, Chiyoda-ku, To	OKYO 100-8310 JAPAN		
CHECK BOX IF APPROPRIATE	desirous of acquiring the enti Letters Patent(s) that may be go in any foreign countries.	presentatives and assigns (hereina ire right, title and interest in and t ranted therefor in the United States	fter designated as the Assignee) is o said invention and in and to any of America and		
	paid, the receipt of which is a undersigned has (have) sold, transfer unto said Assignee of America, its territories, depen any and all Letters Patent(s) territories, dependencies and productions;	hereby acknowledged, and other go assigned and transferred, and by the full and exclusive right to the sadencies and possessions and the en- which may be granted therefor in possessions, and if the box above in	(\$10.00) to the undersigned in hand ood and valuable consideration, the chese presents does sell, assign and aid invention in the United States of tire right, title and interest in and to a the United States of America, its s designated, in any and all foreign		
	and to any and all divisions, a		s and extensions thereof for the full		

Page 1 of 2

	1190-0819PUS1
Attorney Docket No.	

The undersigned agree(s) to execute all papers necessary in connection with this application and any continuing, divisional, conversion or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

The undersigned agree (s) to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation, division, conversion or reissue thereof or Letter Patent(s) or reissue patent issued thereon and to cooperate with the Assignee in every way possible in obtaining and producing evidence and proceeding with such interference.

The undersigned agree(s) to execute all papers and documents and to perform any act which may be necessary in connection with claims or provisions of the International Convention for the Protection of Industrial Property or similar agreements.

The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States of America and any foreign patent(s) to the Assignee and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by the undersigned if this Assignment and sale had not been made.

The undersigned hereby authorize(s) and request(s) the Patent and Trademark Office Officials in the United States of America and in any foreign countries to issue any and all Letters Patents resulting from said application or any continuing, divisional conversion or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has (they have) the full right to convey the entire interest herein assigned, and that he has (they have) not executed, and will not execute, any agreement in conflict herewith.

The undersigned hereby grant(s) the law firm of Birch, Stewart, Kolasch & Birch, LLP 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 and Trademark Office for recordation of this document.

The undersigned hereby covenant(s) that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

Date March 13, 2012	Name of Inventor	Kazuhiko Yamada (signature) Kazuhiko YAMADA
Date Mar. 15, 2012,		Jomoaki Ryu (signature) Tomoaki RYU
Date,		(signature)
Date,	Name of Inventor	(signature)
Date,	Name of Inventor	(signature)
Date,	Name of Inventor	(signature)
na.a.2		

PATENT REEL: 028311 FRAME: 0137

June 2002