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PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Masahiro ARIOKA	10/26/2012
Tomotaka YANO	10/20/2012
Kyoichi OTSUKA	10/24/2012
Satoru YOSHIDA	10/20/2012
Taehyun KIM	10/20/2012
Koji SANO	10/22/2012
Yuta NAKAYAMA	10/23/2012

RECEIVING PARTY DATA

Name:	MITSUBISHI ELECTRIC CORPORATION	
Street Address:	7-3, Marunouchi 2-Chome	
City:	Chiyoda-Ku, Tokyo	
State/Country:	JAPAN	
Postal Code:	100-8310	

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	29432773	

CORRESPONDENCE DATA

Fax Number:

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Email: Sughrue@Sughrue.com, AHarewood@Sughrue.com

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ATTORNEY DOCKET NUMBER: Q142390

NAME OF SUBMITTER: Andrew C. Harewood New App. Specialist

Total Attachments: 2

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PATENT REEL: 029329 FRAME: 0711 OP \$40,00 29432773

Assignment

Whereas, We, M	asahiro ARIOKA, Tomotaka YANO, Kyoichi OTSUKA, Satoru
YOSHIDA, Taehyun KI	M, Koji SANO, and Yuta NAKAYAMA of Chiyoda-Ku, Japan,
respectively, hereinafter	called assignors, have invented certain improvements in VACUUM
	d executed an application for Letters Patent of the United States of
America therefor on	; and

Whereas, MISTUBISHI ELECTRIC CORPORATION of 7-3, Marunouchi 2-Chome, Chiyoda-Ku, Tokyo, 100-8310, Japan (assignee), desires to acquire the entire right, title, and interest in the application and invention, and to any United States patents to be obtained therefor;

Now therefore, for valuable consideration, receipt whereof is hereby acknowledged,

We, the above named assignors, hereby sell, assign and transfer to the above named assignee, its successors and assigns, the entire right, title and interest in the application and the invention disclosed therein for the United States of America, including all divisions, and continuations thereof, and all Letters Patent of the United States that may be granted thereon, and all reissues thereof, and all countries foreign thereto, including rights of priority under the International Convention of Paris (1883) as amended, including the right to claim priority under 35 U.S.C. §119, and we request the Director of the U.S. Patent and Trademark Office to issue any Letters Patent granted upon the invention set forth in the application to the assignee, its successors and assigns; and we hereby agree that the assignee may apply for foreign Letters Patent on the invention and we will execute without further consideration all papers deemed necessary by the assignee in connection with the United States and foreign applications when called upon to do so by the assignee.

We hereby authorize and request our attorneys SUGHRUE MION, PLLC of 2100 Pennsylvania Avenue, NW, Washington, DC 20037-3213 to insert here in parentheses (Application number 29/432,773 and Confirmation number 1299, filed September 20, 2012) the application number, confirmation number and filing date of said application when known.

Date:	Oct. 76. 2012	Masohiro Arloka
-	s/Masahiro ARIOKA	
Date:	Oct 20. 2012	Tomotaka Yano
	s/Tomotaka YANO	
Date:	Oct 24. 2012	Kyoichi Otsuka
	s/Kyoichi OTSUKA	
Date:	Oct 20.2012	Satoru Yoshida
-	s/Satoru YOSHIDA	
Date:	Oct 20, 2012	Tachyun Kim
•	s/Taehyun KIM	
Date:	Oct 22, 2012	Koji SANO
-	s/Koji SANO	

PATENT REEL: 029329 FRAME: 0712 Date: 0ct 23, 2012

Yuta Nakayama

s/Yuta NAKAYAMA

(Legalization not required for recording but is prima facie evidence of execution under 35 U.S.C. §261)

PATENT REEL: 029329 FRAME: 0713