

## PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT										
NATURE OF CONVEYANCE:	ASSIGNMENT										
CONVEYING PARTY DATA											
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>TAKANORI NARITA</td> <td>09/04/2013</td> </tr> <tr> <td>KENICHI AMMA</td> <td>09/04/2013</td> </tr> <tr> <td>FUMIYA TSUKAKOSHI</td> <td>09/04/2013</td> </tr> <tr> <td>MORITO OHNO</td> <td>10/08/2013</td> </tr> </tbody> </table>		Name	Execution Date	TAKANORI NARITA	09/04/2013	KENICHI AMMA	09/04/2013	FUMIYA TSUKAKOSHI	09/04/2013	MORITO OHNO	10/08/2013
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<table border="1"> <tr> <td>Name:</td> <td>MITSUBISHI HEAVY INDUSTRIES, LTD.</td> </tr> <tr> <td>Street Address:</td> <td>16-5, KONAN 2-CHOME, MINATO-KU</td> </tr> <tr> <td>City:</td> <td>TOKYO</td> </tr> <tr> <td>State/Country:</td> <td>JAPAN</td> </tr> <tr> <td>Postal Code:</td> <td>108-8215</td> </tr> </table>		Name:	MITSUBISHI HEAVY INDUSTRIES, LTD.	Street Address:	16-5, KONAN 2-CHOME, MINATO-KU	City:	TOKYO	State/Country:	JAPAN	Postal Code:	108-8215
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CORRESPONDENCE DATA											
<p>Fax Number: (202)721-8250</p> <p>Email: wlp@wenderoth.com</p> <p><i>Correspondence will be sent via US Mail when the email attempt is unsuccessful.</i></p> <p>Correspondent Name: CLAUDIA SIU ORELLANA</p> <p>Address Line 1: 1030 15TH STREET, N.W.</p> <p>Address Line 2: SUITE 400 EAST</p> <p>Address Line 4: WASHINGTON, DISTRICT OF COLUMBIA 20005</p>											
ATTORNEY DOCKET NUMBER:	2013-1638A										
NAME OF SUBMITTER:	CLAUDIA SIU ORELLANA										
Signature:	/Claudia Siu Orellana/										

Date:

10/21/2013

Total Attachments: 4

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# ASSIGNMENT

In consideration of the sum of One Dollar (\$1.00) and other good and valuable consideration paid to each of the undersigned

Insert Name(s) of Inventor(s) Takanori NARITA, Kenichi AMMA, Fumiya TSUKAKOSHI, Morito OHNO,

the undersigned hereby sell(s) and assign(s) to

Insert Name(s) of Assignee(s) Address  
of MITSUBISHI HEAVY INDUSTRIES, LTD.  
of 16-5, Konan 2-chome, Minato-ku, Tokyo 108-8215 Japan

Title of Invention (hereinafter designated as the Assignee) the entire right, title and interest for the United States as defined in 35 USC 100, in the invention known as  
PHASED ARRAY ANTENNA AND PHASE CONTROL METHOD THEREFOR

for which an application for patent in the United States has been executed by the undersigned

Date of Signing of Application on SEP. 04, 2013

The undersigned agree(s) to execute all papers necessary in connection with this application and any continuing, divisional 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 or reissue thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference.

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

The undersigned hereby authorize(s) and request(s) the Commissioner of Patents to issue any and all Letters Patents of the United States resulting from said application or any division or divisions or continuing or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has (they have) 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 firm of WENDEROTH, LIND & PONACK, L.L.P., 2033 K Street, N.W., Suite 800, Washington, D.C. 20006-1021, 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 United States Patent Office for recordation of this document.

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

Date SEP. 04. 2013, Name of the Inventor Takanori Narita  
Takanori NARITA

Date SEP. 04. 2013, Name of the Inventor Kenichi Amma  
Kenichi AMMA

Date SEP. 04. 2013, Name of the Inventor Fumiya Tsukakoshi  
Fumiya TSUKAKOSHI

Date \_\_\_\_\_, Name of the Inventor \_\_\_\_\_  
Morito OHNO

Date \_\_\_\_\_, Name of the Inventor \_\_\_\_\_

Date \_\_\_\_\_, Name of the Inventor \_\_\_\_\_

(This assignment should preferably be acknowledged before a United States Consul. If not, then the execution by the Inventor(s) should be witnessed by at least two witnesses who sign here.)

Witness Masaaki Ikeda  
Masaaki IKEDA

Witness Akira Shirai  
Akira SHIRAI

### ACKNOWLEDGMENT

\_\_\_\_\_  
\_\_\_\_\_ } ss

This \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me personally came the above-named me personally known as the individual(s) who executed the foregoing assignment, who did acknowledge to me that he (they) executed the same of his (their) own free will for the purposes therein set forth.

SEAL

\_\_\_\_\_  
Official Signature

\_\_\_\_\_  
Official Title

The above application may be more particularly identified as follows:

U.S. Application Serial No. \_\_\_\_\_ Filing Date \_\_\_\_\_

Applicant Reference Number 2012-223 Atty Docket No. \_\_\_\_\_

Title of Invention PHASED ARRAY ANTENNA AND PHASE CONTROL METHOD

THEREFOR

# ASSIGNMENT

In consideration of the sum of One Dollar (\$1.00) and other good and valuable consideration paid to each of the undersigned

Insert Name(s)  
of Inventor(s)

Takanori NARITA, Kenichi AMMA, Fumiya TSUKAKOSHI, Morito OHNO.

the undersigned hereby sell(s) and assign(s) to

Insert Name(s)  
of Assignee(s)  
Address

MITSUBISHI HEAVY INDUSTRIES, LTD.  
of 16-5, Konan 2-chome, Minato-ku, Tokyo 108-8215 Japan

Title of  
Invention

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for which an application for patent in the United States has been executed by the undersigned

on OCT. - 8, 2013

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

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Date \_\_\_\_\_, Name of the Inventor \_\_\_\_\_  
Takanori NARITA

Date \_\_\_\_\_, Name of the Inventor \_\_\_\_\_  
Kenichi AMMA

Date \_\_\_\_\_, Name of the Inventor \_\_\_\_\_  
Fumiya TSUKAKOSHI

Date **OCT - 8. 2013**, Name of the Inventor Morito Ohno  
Morito OHNO

Date \_\_\_\_\_, Name of the Inventor \_\_\_\_\_

Date \_\_\_\_\_, Name of the Inventor \_\_\_\_\_

(This assignment should preferably be acknowledged before a United States Consul. If not, then the execution by the Inventor(s) should be witnessed by at least two witnesses who sign here.)

Witness  Kunio UEDA

Witness  Masayuki KOIZUMI

### ACKNOWLEDGMENT

\_\_\_\_\_  
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This \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me personally came the above-named me personally known as the individual(s) who executed the foregoing assignment, who did acknowledge to me that he (they) executed the same of his (their) own free will for the purposes therein set forth.

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