

## PATENT ASSIGNMENT

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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>Joydeep ACHARYA</td> <td>05/09/2012</td> </tr> <tr> <td>Long GAO</td> <td>05/09/2012</td> </tr> <tr> <td>Sudhanshu GAUR</td> <td>05/09/2012</td> </tr> </tbody> </table>		Name	Execution Date	Joydeep ACHARYA	05/09/2012	Long GAO	05/09/2012	Sudhanshu GAUR	05/09/2012
Name	Execution Date								
Joydeep ACHARYA	05/09/2012								
Long GAO	05/09/2012								
Sudhanshu GAUR	05/09/2012								
RECEIVING PARTY DATA									
Name:	HITACHI, LTD.								
Street Address:	6-6, Marunouchi 1-chome, Chiyoda-ku								
City:	Tokyo								
State/Country:	JAPAN								
Postal Code:	100-8220								
PROPERTY NUMBERS Total: 1									
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13468316</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13468316				
Property Type	Number								
Application Number:	13468316								
CORRESPONDENCE DATA									
Fax Number:	(202)293-7860								
Phone:	202-293-7060								
Email:	sughrue@sughrue.com								
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i>									
Correspondent Name:	Sughrue Mion PLLC								
Address Line 1:	2100 Pennsylvania Avenue NW								
Address Line 2:	Suite 800								
Address Line 4:	Washington, DISTRICT OF COLUMBIA 20037-3213								
ATTORNEY DOCKET NUMBER:	CA2321								
NAME OF SUBMITTER:	Mainak H. Mehta								
Total Attachments: 1 source=CA2321Assignment_ASFILED#page1.tif									

CH \$40.00 13468316

### Assignment


Whereas, We, Joydeep ACHARYA, of Sunnyvale, CA; Long GAO, of Santa Clara, CA; and Sudhanshu GAUR, of Santa Clara, CA, respectively, hereinafter called assignors, have invented certain improvements in CONFIGURATION OF CSI-RS RESOURCES BY NETWORK FOR ENABLING COMP and executed an application for Letters Patent of the United States of America therefor; and


Whereas, HITACHI, LTD., of 6-6, Marunouchi 1-chome, Chiyoda-ku, Tokyo 100-8220, 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;

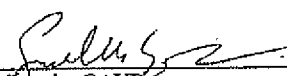
Now therefore, for valuable consideration, receipt whereof is hereby acknowledged,

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, Suite 800, Washington, D.C. 20037-3213 to insert here in parentheses (Application number 13/468,316 and Confirmation number 5311, filed 5/10/12) the application number, confirmation number and filing date of said application when known.

Date: 5/9/2012 |   
s/Joydeep ACHARYA

Date: 5/9/2012 |   
s/Long GAO

Date: 09 MAY 2012 |   
s/Sudhanshu GAUR

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