

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>Sudhanshu GAUR</td> <td>05/29/2012</td> </tr> <tr> <td>Long GAO</td> <td>05/29/2012</td> </tr> <tr> <td>Joydeep ACHARYA</td> <td>05/29/2012</td> </tr> </tbody> </table>		Name	Execution Date	Sudhanshu GAUR	05/29/2012	Long GAO	05/29/2012	Joydeep ACHARYA	05/29/2012
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<table border="1"> <tr> <td>Name:</td> <td>HITACHI, LTD.</td> </tr> <tr> <td>Street Address:</td> <td>6-6, Marunouchi 1-chome</td> </tr> <tr> <td>City:</td> <td>Chiyoda-ku, Tokyo</td> </tr> <tr> <td>State/Country:</td> <td>JAPAN</td> </tr> </table>		Name:	HITACHI, LTD.	Street Address:	6-6, Marunouchi 1-chome	City:	Chiyoda-ku, Tokyo	State/Country:	JAPAN
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CORRESPONDENCE DATA									
<p>Fax Number: (703)684-1157</p> <p>Phone: 7036841120</p> <p>Email: csam@mmpiaw.com</p> <p><i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i></p> <p>Correspondent Name: MATTINGLY & MALUR, PC</p> <p>Address Line 1: 1800 DIAGONAL ROAD</p> <p>Address Line 2: SUITE 370</p> <p>Address Line 4: ALEXANDRIA, VIRGINIA 22314</p>									
ATTORNEY DOCKET NUMBER:	HTA-8336								
NAME OF SUBMITTER:	CHUN-POK LEUNG								
<p>Total Attachments: 1</p> <p>source=HTA_8336_Assignment#page1.tif</p>									

CH \$40.00 13488543

ASSIGNMENT

As a below named inventor, I hereby declare that:

IN CONSIDERATION of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration paid to me by HITACHI, LTD. (hereinafter referred to as ASSIGNEE), a corporation organized under the laws of JAPAN, located at 6-6, Marunouchi 1-chome, Chiyoda-ku, Tokyo, Japan, receipt of which is hereby acknowledged, I do hereby sell and assign to said corporation, its successors and assigns, all my right, title and interest, in and for the United States of America, in and to application serial no. 13/488,543, filed June 5, 2012, and entitled:

METHOD AND APPARATUS FOR BIT-LEVEL PDSCH MUTING AND/OR RECEIVER PUNCTURING IN LTE-ADVANCED HETEROGENEOUS NETWORKS

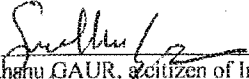
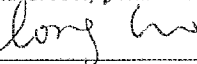
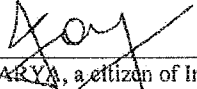
invented by me (if only one is named below) or us (if plural inventors are named below) and described in application for United States Letters Patent therefor, executed on even date herewith, and all United States Letters Patents which may be granted therefor, and all divisions, continuations and extensions thereof, said interest being the entire ownership of said Letters Patents when granted, to be held and enjoyed by said ASSIGNEE, its successors, assigns or other legal representatives, to the full end of term for which said Letters Patents may be granted, as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said ASSIGNEE;

Whereby, I hereby grant the law firm of MATTINGLY & MALUR, P.C., 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 and Trademark Office for recordation of this document, including inserting the application serial number and filing date when known.

And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patents to said ASSIGNEE.

Signed on the date(s) indicated aside signatures:

INVENTOR(S)	Date Signed
1) <u></u> Sudhanathu GAUR, a citizen of India	<u>05/29/2012</u>
2) <u></u> Long GAO, a citizen of China	<u>05/29/2012</u>
3) <u></u> Joydeep ACHARYA, a citizen of India	<u>5/29/2012</u>