


Form PTO-1595 (Rev. 07/05)  
OMB No. 0651-0027 (exp. 6/30/2008)

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|---|---|
| <b>1. Name of conveying party(ies):</b><br>Dr. Toru Otsu, President & CEO, DoCoMo<br>Communications Laboratories Europe GmbH<br>(December 21, 2005)<br>Additional name(s) of conveying party(ies) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No   | <b>2. Name and address of receiving party(ies)</b><br>Name: <u>NTT DoCoMo, Inc.</u><br>Internal Address: _____<br>Street Address: <u>11-1, Nagata-cho</u><br><u>2-Chome</u><br><u>Chiyoda-ku</u><br><u>Tokyo, JAPAN</u><br>City: _____<br>State: _____<br>Country: _____ Zip: _____<br>Additional name(s) & address(es) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No   |
| <b>3. Nature of conveyance/Execution Date(s):</b><br>Execution Date(s): <u>December 21, 2005</u><br><input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Change of Name<br><input type="checkbox"/> Security Agreement <input type="checkbox"/> Joint Research Agreement<br><input type="checkbox"/> Government Interest Assignment<br><input type="checkbox"/> Executive Order 9424, Confirmatory License<br><input type="checkbox"/> Other _____   | <b>4. Application or patent number(s):</b><br>A. Patent Application No.(s)<br><u>11/038,674</u><br>B. Patent No.(s)<br>_____<br>Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  |
| <b>5. Name and address to whom correspondence concerning document should be mailed:</b><br>Name: <u>John J. Penny, Jr.</u><br><u>EDWARDS ANGELL PALMER &amp; DODGE LLP</u><br><u>CUSTOMER NO.: 21874</u><br>Internal Address: <u>Atty. Dkt.: 62439 (51684)</u><br>Street Address: <u>P.O. Box 55874</u><br>City: <u>Boston</u><br>State: <u>MA</u> Zip: <u>02205</u><br>Phone Number: <u>(617) 439-4444</u><br>Fax Number: <u>(617) 439-4170</u><br>Email Address: <u>JPenny@eapdlaw.com</u>  | <b>6. Total number of applications and patents involved:</b> <span style="border: 1px solid black; padding: 2px 10px;">1</span><br><b>7. Total fee (37 CFR 1.21(h) &amp; 3.41)</b> \$ <u>40.00</u><br><input type="checkbox"/> Authorized to be charged by credit card<br><input checked="" type="checkbox"/> Authorized to be charged to deposit account<br><input type="checkbox"/> Enclosed<br><input type="checkbox"/> None required (government interest not affecting title)<br><b>8. Payment Information</b><br>a. Credit Card Last 4 Numbers _____<br>Expiration Date _____<br>b. Deposit Account Number <u>04-1105</u><br>Authorized User Name <u>John J. Penny, Jr.</u> |
| <b>9. Signature:</b><br><div style="text-align: center; margin-top: 20px;"> <br/>         _____<br/>         Signature       </div> <div style="text-align: right; margin-top: 20px;"> <u>December 30, 2005</u><br/>         Date       </div> <div style="text-align: center; margin-top: 20px;"> <u>John J. Penny, Jr. - 36,984</u><br/>         Name of Person Signing       </div> <div style="text-align: right; margin-top: 20px;">         Total number of pages including cover sheet, attachments, and documents: <span style="border: 1px solid black; padding: 2px 10px;">2</span> </div> |   |

I hereby certify that this correspondence is being facsimile transmitted to the Patent and Trademark Office, facsimile no. (571) 273-0140, on the date shown below.

Dated: December 30, 2005

Signature: \_\_\_\_\_

(Nicole McKinnon)

Attorney Docket No.62439 (51684)

**ASSIGNMENT OF US NONPROVISIONAL APPLICATION**

In consideration of the sum of Ten Dollars (\$1.00) and other good and valuable consideration paid to the undersigned, the receipt and sufficiency of which are hereby acknowledged by the undersigned who at the request of, hereby sell(s), assign(s) and transfer(s) unto:

NTT DoCoMo, Inc.  
11-1, Nagata-cho 2 Chome, Chiyoda-ku, Tokyo, Japan

(hereinafter designated "ASSIGNEE") the right, title and interest for the United States of America as defined in 35 U.S.C. 100, in the invention and U.S. Application No. 11/038,674 filed on January 19, 2005 and all resulting patents, known as

APPARATUS AND METHOD FOR ESTIMATING A PLURALITY OF CHANNELS

AND the undersigned hereby authorize(s) and request(s) the United States Commissioner of Patents and Trademarks to issue said Letters Patent to the said ASSIGNEE, for its interest as ASSIGNEE, its successors, assigns and legal representatives; the undersigned agree(s) that the attorney of record in said application shall hereinafter act on behalf of said ASSIGNEE;

AND the ASSIGNORS further agree to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights, and also agree, at the request of the Assignee, to testify in any legal proceedings, sign all lawful papers, make all lawful oaths, and generally do everything possible to aid said Assignee, its successors and assigns, to obtain, maintain and enforce patent protection for said invention in all countries.

The ASSIGNORS also hereby grant the law firm of **EDWARDS & ANGELL 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 United States Patent and Trademark Office for recordation of this documents.

Dated this 21 day of December, 2005.

大津 拓  
Dr. Toru Otsu

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President & CEO, DoCoMo Communications Laboratories Europe GmbH

PATENT

RECORDED: 12/30/2005

REEL: 017151 FRAME: 0686