

PATENT ASSIGNMENT

Electronic Version v1.1

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SUBMISSION TYPE:	NEW ASSIGNMENT										
NATURE OF CONVEYANCE:	ASSIGNMENT										
CONVEYING PARTY DATA											
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 70%;">Name</th> <th style="width: 30%;">Execution Date</th> </tr> </thead> <tbody> <tr> <td>Bengt Lindoff</td> <td>07/22/2010</td> </tr> <tr> <td>Bo Lincoln</td> <td>09/01/2010</td> </tr> <tr> <td>Tobias Ryden</td> <td>07/06/2010</td> </tr> </tbody> </table>		Name	Execution Date	Bengt Lindoff	07/22/2010	Bo Lincoln	09/01/2010	Tobias Ryden	07/06/2010		
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<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Name:</td> <td>Telefonaktiebolaget LM Ericsson (publ)</td> </tr> <tr> <td>Street Address:</td> <td>SE-164 83</td> </tr> <tr> <td>City:</td> <td>Stockholm</td> </tr> <tr> <td>State/Country:</td> <td>SWEDEN</td> </tr> <tr> <td>Postal Code:</td> <td>SE-164</td> </tr> </table>		Name:	Telefonaktiebolaget LM Ericsson (publ)	Street Address:	SE-164 83	City:	Stockholm	State/Country:	SWEDEN	Postal Code:	SE-164
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CORRESPONDENCE DATA											
<p>Fax Number: (972)583-7864</p> <p><i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Phone: 972-583-4795</p> <p>Email: kara.coffman@ericsson.com</p> <p>Correspondent Name: Ronald S. Liu</p> <p>Address Line 1: 6300 Legacy Drive</p> <p>Address Line 2: MS EVR 1C11</p> <p>Address Line 4: Plano, TEXAS 75024</p>											
ATTORNEY DOCKET NUMBER:	P25565-US3										
NAME OF SUBMITTER:	Ronald S. Liu										

Total Attachments: 6

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ASSIGNMENT

This Assignment is made by:

LINDOFF, Bengt

**Morkullevägen 45
SE-237 36 BJÄRRED
Sweden**

LINCOLN, Bo

**Målarevägen 37
SE-227 30 LUND
Sweden**

RYDÉN, Tobias

**Päronvägen 17
SE-224 56 LUND
Sweden**

(hereinafter referred to as "Assignor(s)") in favor, and for the benefit and behoof of, Telefonaktiebolaget L M Ericsson (publ), a corporation duly organized under and pursuant to the laws of Sweden and having its principal place of business at S-164 83 Stockholm, Sweden (hereinafter referred to as "Assignee").

For good, sufficient and adequate consideration, the receipt of which is hereby acknowledged, the Assignor(s) have, as of the Effective Date, sold, assigned, transferred, and set over, and by these presents, and to the extent any transferable or assignable rights still remain with the inventor, do hereby sell, assign, transfer, and set over, unto the Assignee, its successors, legal representatives, and assigns the entire right, title, and interest in and to the following inventions, application(s) for Letters Patent, and any and all Letters Patent or Patents in all countries and pursuant to all multilateral treaty organizations, including Sweden, the United States of America, the Patent Cooperation Treaty and European Patent Convention, that may be granted therefor and thereon, and in and to any and all divisions, continuations, and continuations-in-part of said application(s), and reissues and extensions of said Letters Patent or Patents, the same to be held and enjoyed by the Assignee, for its use and behoof and the use and the behoof of its successors, legal representatives, and assigns, to the full end of the term or terms for which Letters Patent and Patents may be granted as fully and entirely as the same would have been held and enjoyed by the Assignor(s) had this sale and assignment not been made:

CHANNEL ESTIMATION USING PRECODED REFERENCE SYMBOLS

including, but not limited to, the application(s) for Letters Patent filed in:

Country Code	Priority Application(s)	Filing Date(s)
US	61/024,416	01/29/2008
EP	08155659.9	05/05/2008
US	61/052,041	05/09/2008
WO	PCT/EP2009/050947	01/28/2009
US	12/865095	09/01/2010

The Effective date is the earliest date of the above listed Filing Date(s).

ASSIGNMENT

Assignor(s) hereby authorize and request Assignee's Attorneys to insert the serial number and filing date of said application(s) for Letter Patent, when known. The assignment of the above mentioned rights includes a transfer of the right to use a convention priority of the above mentioned application(s) for Letter Patent in all countries and multilateral treaty organizations. Assignor(s) hereby request that said Letters Patent or Patent be issued to Assignee as the Assignee of said inventions, the Letters Patent or Patent to be issued for the sole use and behoof of the Assignee, its successors, legal representatives, and assigns. Assignee alone hereinafter has the entire disposal of the invention and possesses entire ownership to any domestic and foreign patents granted thereafter. The rights granted hereunder shall include all rights to institute legal actions, obtain remedies and recover and retain damages in respect to said Letters Patent or Patent.

To the extent Assignee is entitled to receive the rights hereunder pursuant to this Assignment, each of the Assignor(s) hereby covenants and agrees to and with the Assignee, its successors, legal representatives, and assigns, that, at the time of the Effective Date, the Assignor(s) were the sole and lawful owners of the entire right, title, and interest in and to the inventions and application(s) for Letters Patent above-mentioned, and that the same are unencumbered, and that the Assignor(s) have good and full right and lawful authority to sell and convey the same in the manner herein set forth.

Further, and for the same consideration, the Assignor(s) hereby covenant(s) and agree(s) to and with the Assignee, its successors, legal representatives, and assigns that the Assignor(s) will, whenever counsel of the Assignee, or the counsel of its successors, legal representatives, and assigns, shall advise that any proceeding in connection with said inventions or said application(s) for Letters Patent, or any proceeding in connection with Letters Patent for said inventions, in any country and any multilateral treaty organization, including interference proceedings, is lawful and desirable, or that any division, continuation, continuation-in-part of any application(s) for Letters Patent, or any reissue or extension of any Letters Patent to be obtained thereon, is lawful and desirable, sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement, and defense of Letters Patent for said inventions, without charge to Assignee, its successors, legal representatives, and assigns, but at the cost and expense of the Assignee, its successors, legal representatives, and assigns. If any of the Assignor(s) is prevented by any obstacles from signing said documents in person, this Assignment shall be valid as a Power of Attorney for the Assignee to sign these documents on behalf of any such Assignor(s) or, in the event of the death of the latter, the estate thereof.

This Assignment shall be governed by and construed under, and any dispute, controversy or claim related hereto shall be decided in accordance with, the laws of:
Sweden

without regard to the conflicts of laws provisions thereof. Any dispute, controversy or claim arising under, out of or relating to this Assignment and any subsequent amendments of this Assignment, including, without limitation, its formation, validity, binding effect, interpretation, performance, breach or termination, as well as non-contractual claims, shall be referred to and finally determined by arbitration in accordance with the WIPO Arbitration Rules. The arbitral tribunal shall consist of a sole arbitrator. The place of arbitration shall be in the country of the inventor's residence. The language to be used in the arbitral proceedings shall be English.


ASSIGNMENT

No modifications shall be made to this Assignment unless in writing and signed by each of the Assignor(s) and Assignee. If any of the provisions of this Assignment shall be deemed invalid or unenforceable, then the entire Assignment shall be construed as if not containing the particular invalid or unenforceable provision or provisions, and the rights and obligations of Assignee and Assignor(s) shall be construed and enforced accordingly. Assignee's failure to exercise any option made available as a result hereof, shall not be construed as a waiver of such provisions, rights, or options, or affect the validity of this Assignment. Assignor covenants and agrees that it will not take any actions in violation of this Assignment.

ASSIGNMENT

Date.....22/7-10.....

Signature of Assignor



LINDOFF, Bengt

Date.....22/7-10.....

Witnessed by

Name:

Address:

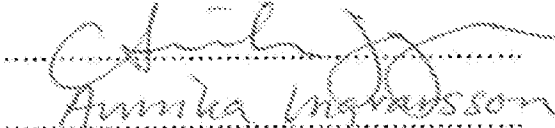

ANNA SANDSTRÖM
BOLLEVÄNGBESÄGEN 45
144 74 FURULUND
SWEDEN

Date.....22/7-10.....

Witnessed by

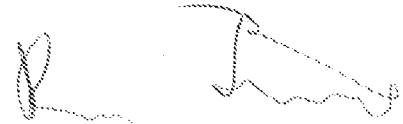
Name:

Address:


Annika Ingmarsson
Munkgr. 3
237 91 FÄLSTERBO

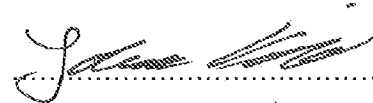
ASSIGNMENT

Date 2010-09-01 Signature of Assignor



LINCOLN, Bo

Date 2010-09-01 Witnessed by



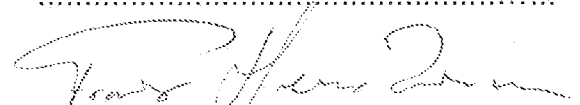
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Johan Hill

Address:

Solistv. 27 lig 122
224 68 Lund

Date..... Witnessed by



Name:

Frans Hermansson

Address:

Flyinge by 841
247 93 Flyinge

ASSIGNMENT

Date 6 July 2010

Signature of Assignor

Tobias Rydén
RYDÉN, Tobias

Date 6 July 2010

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Date 6 July 2010

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Address:

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