PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Mats Sagfors	06/30/2010
Stefan Wager	06/28/2010

RECEIVING PARTY DATA

Name:	Telefonaktiebolaget LM Ericsson (publ)
Street Address:	SE 164 83
City:	Stockholm
State/Country:	SWEDEN
Postal Code:	SE-164 83

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13266106

CORRESPONDENCE DATA

Fax Number: (972)583-7864 **Phone**: 972-583-4795

Email: kara.coffman@ericsson.com

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

via US Mail.

Correspondent Name: Brian Kearns
Address Line 1: 6300 Legacy Drive
Address Line 2: MS EVR 1C11
Address Line 4: Plano, TEXAS 75024

ATTORNEY DOCKET NUMBER: P28653-US2

NAME OF SUBMITTER: Brian M. Kearns

Total Attachments: 8

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PATENT REEL: 027261 FRAME: 0182 13266106

CH \$40.00

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PATENT REEL: 027261 FRAME: 0183 This Assignment is made by:

SÅGFORS, Mats

Jungfrusvängen 33 G 12 FI-02400 KYRKSLÄTT Finland

WAGER, Stefan

Gårdsgränden 8 H FIN-02360 ESPOO Finland

(hereinafter referred to as "Assignor(s)") in favor, and for the benefit and behoof of, Oy L M Ericsson Ab, a corporation duly organized under and pursuant to the laws of Finland and having its principal place of business at Hirsalantie 11, 02420 Jorvas, Finland (hereinafter referred to as "Assignee").

For good, sufficient and adequate consideration, the receipt of which is hereby acknowledged, the Assignor(s) have 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 Finland, 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:

A METHOD AND APPARATUS FOR PERFORMING UPLINK TRANSMISSIONS IN A WIRELESS COMMUNICATIONS SYSTEM

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

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PATENT REEL: 027261 FRAME: 0184

Country Code	Priority Application(s)	Filing Date(s)
WO	PCT/SE2010/050064	2010-01-25
US	61/172322	2009-04-24
US	13/266,106	2011-10-24

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 thereinafter. 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 execution and delivery these presents, 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 abovementioned, 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

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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.

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.

Date 30.06.2070	Signature of Assignor	Mk Jayon
		SAGFORS, Mats
Date 30.6.2010	Witnessed by	Poss
	Name:	RUKKA SUSTATUAL
	Address:	MANNER HEILINTIE CZ
		MELSINKI
Date 30, 6, 2015	Witnessed by	Line FC
	Name:	KIMMO HICTUNEN
	Address:	PEURAMÄENTIE 2832
		02760 55800
		FINCANO

Date 28.4.2010	Signature of Assignor	WAGER, Ştefan
Date. 28.6,7010	Witnessed by	Vesa Virkki
	Address:	Amiraalin puistotie 6 C 59
		FINLAND.
Date. 28,6,3010	Witnessed by	
	Name:	Edgar Ramos
	Address:	Keskiyöntie 12 E
		FIN-02210 Espoo
		_FINLAND

LMF to LME Assignment

This Assignment is made by Oy L M Ericsson, a corporation duly organized under and pursuant to the laws of Finland and having its principal place of business at Hirsalantie 11, 02420 Jorvas, Finland (hereinafter referred to as "Assignor") 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 has sold, assigned, transferred, and set over, and by these presents, and 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 application(s) for Letters Patent, and any and all Letters Patent or Patents 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 had this sale and assignment not been made:

A METHOD AND APPARATUS FOR PERFORMING UPLINK TRANSMISSIONS IN A WIRELESS COMMUNICATIONS SYSTEM

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

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Assignor hereby authorizes and requests Assignee's Attorneys to insert the serial number and filing date of said application(s) for Letters Patent, when known. Assignor hereby request that said Letters Patent or Patent be issued to Assignee as the Assignee of said Letters Patent or Patent to be issued for the sole use and behoof of the Assignee, its successors, legal representatives, and assigns. 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, Assignor hereby covenants and agrees to and with the Assignee, its successors, legal representatives, and assigns, that, at the time of execution and delivery these presents, the Assignor was the sole and lawful owner of the entire right, title, and interest in and to the application(s) for Letters Patent above-mentioned, and that the same are unencumbered, and that the Assignor has good and full right and lawful authority to sell and convey the same in the manner herein set forth.

LMF to LME Assignment

Further, and for the same consideration, the Assignor hereby covenants and agrees to and with the Assignee, its successors, legal representatives, and assigns that the Assignor 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 application(s) for Letters Patent, or any proceeding in connection with Letters Patent for said inventions, 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 the Assignor 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.

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 Sweden. The language to be used in the arbitral proceedings shall be English.

No modifications shall be made to this Assignment unless in writing and signed by each of the Assignor 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 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.

LMF to LME Assignment

Signature of Assignee

Telefonaktiebolaget L M

Ericsson (publ)

Date 21/9-10 Charlotselle

Name: Charlotte Nilsson Title: Manager, Patent Unit

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Signature of Assignor

Oy L M Ericsson AB

Date 10.9.2010

Name: Hannu Ahonen Title: Senior Group Legal

Counsel

Date 10.9.2010

J-414

Name: Janne Laitala Title: President