506185105 08/03/2020

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ANDREAS HÖGLUND	02/08/2017
ALINADER	01/10/2017
BÉLA RATHONYI	02/28/2017
YI-PIN ERIC WANG	03/01/2017

RECEIVING PARTY DATA

Name:	TELEFONAKTIEBOLAGET LM ERICSSON (PUBL)
Street Address:	SE - 164 83
City:	STOCKHOLM
State/Country:	SWEDEN

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16983023

CORRESPONDENCE DATA

Fax Number:

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 9199483390

Email: official@mbhiplaw.com

Correspondent Name: MURPHY BILAK & HOMILLER PLLC
Address Line 1: 1255 CRESCENT GREEN SUITE 200

Address Line 2: SUITE 200

Address Line 4: CARY, NORTH CAROLINA 27518

ATTORNEY DOCKET NUMBER:	1009-4116 / P49036 US4
NAME OF SUBMITTER:	JUSTIN J. LEONARD
SIGNATURE:	/Justin J. Leonard/
DATE SIGNED:	08/03/2020

Total Attachments: 7

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PATENT 506185105 REEL: 053384 FRAME: 0765



PATENT REEL: 053384 FRAME: 0766

This Assignment is made by:

HÖGLUND, Andreas

Igelbacken 39 SE-170 62 SOLNA

Sweden

NADER, Ali

Jaktvagnsgatan 13 SE-212 42 MALMÖ

Sweden

RATHONYI, Béla

Östra Almgatan 77 SE-234 37 LOMMA

Sweden

WANG, Yi-Pin Eric

1357 Grosventres Ct 94539 FREMONT

CA

United States

(hereinafter referred to as "Assignor(s)") in favor, and for the benefit and behoof of, Telefonaktiebolaget LM Ericsson (publ), a corporation duly organized under and pursuant to the laws of Sweden and having its principal place of business at SE-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, continuations-in-part, conversions and utility models 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, Patents and Utility Models 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:

DATA BLOCK TRANSMISSION AND RECEPTION IN A WIRELESS COMMUNICATION SYSTEM

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

Page 1 of 7

PATENT REEL: 053385 FRAME: 0567

	T	Eiling Data(e)
Country Code	Priority Application(s)	Filing Date(s)
WO	PCT/SE2017/050014	2017-01-10
UNITED STATES	15/402293	2017-01-10
US	16/239,078	2018-01-03
	16/983 023	2020-08-03

US 16/983,023 2020-08-03 2020-08-03 The Effective date is the earliest date of the above listed Filing Date(s).

Assignor(s) hereby authorize and request Assignee's Attorneys to insert the serial number and filing date of said application(s) for Letter Patent or Utility Model, when known. The assignment of the above mentioned rights includes a transfer of the whole right to use a priority (including priority according to any convention, multilateral agreement, bilateral agreement and national law) of the above mentioned application(s) for Letter Patent and Utility Model in all countries and multilateral treaty organizations wherein no residual rights shall remain with the Assignor(s). Assignor(s) hereby request that said Letters Patent, Patent or Utility Model be issued to Assignee as the Assignee of said inventions, the Letters Patent, Patent or Utility Model 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 or utility models 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, Patent or Utility Model.

The Assignor(s) and Assignee hereby understand and agree that with the execution of this Assignment, to the extent necessary or appropriate, national and/or regional applications may be filed by the Assignee as the applicant and on behalf of the assignor.

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 or Utility Models 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 Utility Model, or any proceeding in connection with Letters Patent or Utility Model 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, conversion or Utility Model of any application(s) for Letters Patent or Utility Model, 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 or Utility Model 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

Page 2 of 7

PATENT REEL: 053385 FRAME: 0568

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: United States

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.

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.

Subsequent assignment from any of the assignors to the assignee purporting to convey the subject matter specified herein for a particular country, patent office, or jurisdiction shall not invalidate any provision of this assignment and any such subsequent assignment shall act as a further confirmation of the assignment herein.

Date 2013 - 03 - 13 Signature on behalf of

Assignee

Jenny Blidefalk

Director, Patent Unit DSM

Title: DATA BLOCK TRANSMISSION AND RECEPTION IN A WIRELESS

COMMUNICATION SYSTEM

Date 2017-02-08

Signature of Assignor

HÖGLUND, Andreas

Date 2017-02-08

Witnessed by

Name:

Sofia Ek

Address:

Tulegatan 71

172 72 Sundbyberg

Sweden

Date 2017-02-08

Witnessed by

Yu Wang

Address:

Name:

Boulevard 109

16 974 Solna

Sweden

Title: DATA BLOCK TRANSMISSION AND RECEPTION IN A WIRELESS COMMUNICATION SYSTEM

Date	Signature of Assignor	NADER, ĂII
Date	Witnessed by	
	Name:	
	Address:	Redinfer 6
		- 22 <u>1 2 3 . A mal</u>
Date Jan 15th 2017	Witnessed by	D. Quelin J.
	Name:	Pernille Ekelund
	Address:	160686K2 1851
		232. AL Bjárred
		SWEPEN

Title: DATA BLOCK TRANSMISSION AND RECEPTION IN A WIRELESS COMMUNICATION SYSTEM

Date 29/2 - 2017	Signature of Assignor	RATHONYI, Béla
Date 27/2-2917	Witnessed by	<u> 200-200</u>
	Name:	<u> </u>
	Address:	Chrusveces galan is
		25433Helsonybers
Date 2017 02 28	Witnessed by	16.4 Dec
Date	•	NICLAS BAUGE
	Name:	
	Address:	JARAVALLS VAGEN 39
		237-37 DVARZED

Title: DATA BLOCK TRANSMISSION AND RECEPTION IN A WIRELESS COMMUNICATION SYSTEM

Date 23/1/2011)	Signature of Assignor Witnessed by Name: Address:	WANG, YI-PIN ENC 2-2-4-2
Date 03/01/2017	Witnessed by Name: Address:	ESKIL JÄSGENSEN. Källnegahn. 19. SE-55333