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PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT5816701

SUBMISSION TYPE: NEW ASSIGNMENT

NATURE OF CONVEYANCE: ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
CHALMERS TEKNISKA HOGSKOLA AB	02/21/2018

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:	16612765

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER: 4906P71566US1		
NAME OF SUBMITTER:	WILLIAM W. KIDD	
SIGNATURE:	/William W. Kidd; Reg. No. 31,772/	
DATE SIGNED: 11/12/2019		

Total Attachments: 6

source=P71566 US1 2019-11-12 Transfer Agreement (Chalmers to Ericsson)#page1.tif source=P71566 US1 2019-11-12 Transfer Agreement (Chalmers to Ericsson)#page2.tif source=P71566 US1 2019-11-12 Transfer Agreement (Chalmers to Ericsson)#page3.tif source=P71566_US1_2019-11-12_Transfer Agreement (Chalmers to Ericsson)#page4.tif source=P71566 US1 2019-11-12 Transfer Agreement (Chalmers to Ericsson)#page5.tif source=P71566 US1 2019-11-12 Transfer Agreement (Chalmers to Ericsson)#page6.tif

PATENT REEL: 050987 FRAME: 0629 505769885

This Assignment is made by:

Chalmers tekniska högskola AB, Department of Signals and Systems, org. nr. 556479-5598, SE-412 96 Göteborg, Sweden (hereinafter referred to as "Chalmers") 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 SE-164 83 Stockholm, Sweden, an organization number 556016-0680 (hereinafter referred to as "Ericsson").

Chalmers is an independent Research Institution focusing on the development and transfer of scientific research results for industrial products and processes in the area of electronics, optics and telecommunication. Chalmers conducts internally funded research programs and contract research and product development for industrial customers. Ericsson is a world-leading provider of telecommunications equipment and related services to mobile and fixed network operators globally.

WHEREAS Within Chase Centre, Christos Kolitsidas and Lars Jonsson 2 employees of KTH (from the division of EKT at KTH, that in the collaboration frame of CHASE are considered to constitute part of Chalmers), and Stefan Engström (employee of Ericsson) have made a patentable invention (the "Invention") which has been documented in an invention disclosure titled: "Strongly Coupled Asymmetric Dipole Array", (the "Invention Disclosure") being allotted Ericsson patent case reference P71566 in Ericsson internal patent docketing system. The sole inventors of the Invention are the KTH employees Christos Kolitsidas, Lars Jonsson, (for the purposes of this agreement only, hereinafter called the "Chalmers Inventors"), and Stefan Engström (the Ericsson inventor). The Invention has been determined as interesting technology for Ericsson and may be of use for Ericsson.

WHEREAS Chalmers wishes to assign the assignable rights to such Invention, the parties agree as follows:

On March 24th, 2017 (the "Effective Date"), Chalmers and Ericsson entered into a verbal agreement that Chalmers should transfer, sell and assign all rights, title and interest to the Invention to Ericsson as of the Effective Date. Against this background and in order to formalize the transfer and assignment of the Invention from Chalmers to Ericsson, the Parties have agreed upon entering into this written agreement (the "Agreement").

Chalmers hereby declares that it had acquired all rights, title and interest to the Invention above previously owned by the Chalmers Inventors from Chalmers Inventors and that it as of the Effective Date was the rightful owner of the Chalmers Inventors' rights, title and interest to the Invention.

Chalmers has, 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 Chalmers, do hereby sell, assign, transfer, and set over, unto Ericsson, its successors, legal representatives, and assigns, theentire 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 Ericsson, 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 Chalmers had this sale and assignment not been made, including but not limited to , the application(s) for letters patent and utility model filed in:

Country Code	Priority Application(s)	Filing Date(s)
WO	PCT/SE2017/050482	2017-05-12
US	16/612,765	2019-11-12

The Parties agree that the transactions under this Agreement were effected on the Effective Date.

Chalmers 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 Chalmers. Chalmers 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.

As compensation for the transactions under this Agreement, Ericsson agreed to pay to Chalmers a lump sum of 106 667 SEK (One hundred and six thousand sixhundred sixtyseven Swedish Kronor), (excluding VAT) to Chalmers within 60 days from receipt of invoice. No further compensation for the assignment shall be paid by Ericsson to Chalmers irrespective of possible grant of patents on or commercialization of or other use of the assigned Invention.

Chalmers agreed to be responsible for rewarding the Chalmers Inventors according to the inventor remuneration scheme agreed in "Avtal för Chase, Chalmers Antenna Systems VINN Excellence Centre, Etapp 4, 2015-01-01 till 2016-12-31 (appended).

Ericsson agreed to be responsible for any and all costs arising out of or in connection with patent application, maintenance and defence of IPR emanating from the Invention.

Chalmers undertook to keep the Invention confidential, within the limit of Swedish law, until a first regular patent application has been filed, after which they may make a scientific publication of the Invention, if approved by Ericsson.

Chalmers and Ericsson 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 Ericsson as the applicant.

To the extent Ericsson is entitled to receive the rights hereunder pursuant to this Assignment, Chalmers hereby covenants and agrees to and with Ericsson, its successors, legal representatives, and assigns, that, at the time of the Effective Date, Chalmers was the sole and lawful owner of two fifths of the right, title, and interest in and to the inventions and that the same are unencumbered, and that Chalmers has 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, Chalmers hereby covenant(s) and agree(s) to and with Ericsson, its successors, legal representatives, and assigns that Chalmers will, whenever counsel of Ericsson, or the counsel of its successors, legal representatives, and assigns, advise that any proceeding in connection with the Invention or said application(s) for letters patent, or any proceeding in connection with letters patent, patent or utility model for the Invention, 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, patent or utility model for said invention, without charge to Ericsson, its successors, legal representatives, and assigns, but at the cost and expense of Ericsson, its successors, legal representatives, and assigns. If any of Chalmers is prevented by any obstacles from signing said documents in person, this Assignment shall be valid as a power of attorney for Ericsson to sign these documents on behalf of any such Chalmers.

The Parties agreed that Chalmers shall have the right to a free non-exclusive, non-transferable license to use the technology described in the Invention, whether patented or not for its own research and development purposes but not for commercial purposes. The license does not include the right to sublicense to any third party. Furthermore, Ericsson agrees to reserve the right of use of the Invention for the parties within Chase Centre as further set out in the agreement "Avtal för Chase, Chalmers Antenna Systems VINN Excellence Centre, Etapp 4, 2015-01-01 till 2016-12-31 (appended).

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 Swedish courts.

No modifications shall be made to this Assignment unless in writing and signed by both Chalmers and Ericsson. 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 Ericsson and Chalmers shall be construed and enforced accordingly. Ericsson'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. Chalmers covenants and agrees that it will not take any actions in violation of this Assignment.

Subsequent assignment from Chalmers to Ericsson 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.

Vice President/and Head of IPR Legal

Services

ASSIGNMENT AGREEMENT

Date Q2/3 QC) Signature on behalf of MM Muley Wood Ericsson Name: Nina Macpherson Senior Vice President and General Counsel Christina Petersson

Invention Slogan: Strongly Coup	oled Asymmetric Dipole A	rray
Date. 2018-02-2-1	Signature of Chalmers	Anders Kanshōm, prefeld
Date 2015-02-21	Witnessed by	Aquel Utuard
	Name:	Agnela Kinnander
	Address:	Håldomargetan 46 431 b2 Hölndal
		Quinnyanganganananananananan
Date 2018-02-21	Witnessed by	HOUR STERNAN
	Name:	Herria Odeás Forsberg
	Address:	Sotrasivajen 29
		432 Lo Savedoles