PATENT ASSIGNMENT COVER SHEET

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| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|--------------------|----------------|
| TOBIAS TYNDERFELDT | 01/24/2008 |
| JONAS B. KARLSSON | 01/24/2008 |
| MAGNUS JOHANSSON | 01/24/2008 |

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: | 16012482 |

CORRESPONDENCE DATA

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| ATTORNEY DOCKET NUMBER: | 1009-2566 / P24959 US3 |
|-------------------------|---------------------------------------|
| NAME OF SUBMITTER: | DANIEL P. HOMILLER |
| SIGNATURE: | / Daniel P. Homiller, Reg. # 55,275 / |
| DATE SIGNED: | 06/19/2018 |

Total Attachments: 5

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PATENT 504967483 REEL: 046133 FRAME: 0607

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PATENT REEL: 046133 FRAME: 0608

THIS ASSIGNMENT, by Tobias Tynderfeldt Jonas B. Karlsson Magnus Johansson

(hereinafter referred to as "the Assignors") residing at Sjövägen 2, 2 tr ,169 55 SOLNA ,Sweden Scoutvägen 64 ,191 39 SOLLENTUNA ,Sweden Björcksgatan 66A ,416 51 GÖTEBORG ,Sweden

respectively, witnesseth:

WHEREAS, the Assignors have invented certain new and useful improvements in MIMO mode selection during Random Access

said invention being disclosed in Sweden application no. 0702415-1 filed on 2007-10-31 and said invention being based on PCT application no. PCT/SE2008/050026 filed on 2008-01-10

WHEREAS, Telefonaktiebolaget LM 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 "the Assignee") is desirous of acquiring the entire right, title and interest in and to said inventions.

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and sufficient consideration, the receipt of which is hereby acknowledged, the Assignors have sold, assigned, transferred, and set over, and by these presents do 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 above-mentioned inventions, application for Letters Patent, and any and all Letters Patent or Patents of the United States of America that may be granted therefor and thereon, and in and to any and all divisions, continuations, and continuations-in-part of said application, 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 Assignors had this sale and assignment not been made;

AND for the same consideration, the Assignors hereby convenant and agree to and with the Assignee, its successors, legal representatives, and assigns, that, at the time of execution and delivery these presents, the Assignors are the sole and lawful owners of the entire right, title, and interest in and to the inventions and application for Letters Patent above-mentioned, and that the same are uncumbered, and that the Assignors have good

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and full right and lawful authority to sell and convey the same in the manner herein set forth;

AND for the same consideration, the Assignors hereby covenant and agree to and with the Assignee, its successors, legal representatives, and assigns that the Assignors 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 for Letters Patent, or any proceeding in connection with Letters Patent for said inventions in any country, including interference proceedings, is lawful and desirable, or that any division, continuation, continuation-in-part of any application 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;

AND the Assignors 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.

| Date Jen 24,2008 | Signature of Assiq | gnor Olive Young |
|----------------------|--------------------|--------------------------------|
| Date: 2008 - 01 - 24 | Witnessed by | got and film de bioconomica, m |
| | Name: | Magnus Johansson |
| | Address: | Ejőrekse 66A |
| | | 3E-4165) 65kbog |
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| | | |
| Date 2008 (01/24 | Witnessed by | Suy> |
| | Name: | - Youd SUNI |
| | Address; | Rustlillanvigen 10. 14 |
| | | 19278 1 Sollantons |
| | | Gisseda . |

| Date 2008-01-24 | .Signature of Assignor | Jonas B. Karlsson |
|-----------------|------------------------------------|---|
| | .Witnessed by Name: Address: | Olos GAA Tobius Tynderfeldt Sjävägen 2 1695 T. Solna Sueden |
| | .Witnessed by Name: Address: | Christian Gilling Odensy odlar 3125 113 51 Hadebolm Sweden |

| Date2008-01-24 | Signature of Assig | gnor Magnus Johansson |
|------------------|--------------------|---------------------------------|
| Date 2008:01:24 | Witnessed by | Olem YA |
| | Name: | Jabies Tyskerfeldt |
| | Address: | <u> Spieges 2</u> |
| | | 16755 Sha |
| | | SWEDEN |
| } | | <u>/7</u> |
| Date. 2008/01/24 | Witnessed by | and Singuis |
| | Name: | STAGA SUN |
| | Address: | <u>Ristbölleravägis 19, 14x</u> |
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| | | Ohe Ar. |