504594517 10/16/2017

PATENT ASSIGNMENT COVER SHEET

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| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|----------------|----------------|
| JUSSI JAATINEN | 04/27/2015 |

RECEIVING PARTY DATA

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PROPERTY NUMBERS Total: 1

| Property Type | Number | |
|---------------------|----------|--|
| Application Number: | 15566741 | |

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| ATTORNEY DOCKET NUMBER: | OCKET NUMBER: 87274US INV TO NTECH | |
|-------------------------|------------------------------------|--|
| NAME OF SUBMITTER: | SANDY FONG-HOU | |
| SIGNATURE: | /Sandy Fong-Hou/ | |
| DATE SIGNED: | 10/16/2017 | |

Total Attachments: 2

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PATENT 504594517 REEL: 043868 FRAME: 0232

X

ASSIGNMENT

| I/we, (The ASSIGNOR(S)): | | | | |
|--|--|--|--|--|
| Jussi Jaatinen | | | | |
| For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, hereby assign to (hereafter referred to as The ASSIGNEE): | | | | |
| Nokia Technologies OY | | | | |

Karaportti 3 02610 Espoo Finland

An invention entitled (invention Title):

CERTIFICATE VERIFICATION

| The PATENT RIGHTS referred to in this agreement are: | | | | | | |
|---|--|-----------|---------|------------------|--|--|
| | a national Patent Application No. | filed | on | | | |
| _ | European Patent Application No. | filed | on | | | |
| <u>X</u> | PCT application No. PCT/FI2015/050273 filed on Apr 21, 2015. | | | | | |
| for this inventi | on, executed by the ASSIGNOR(S) U.S. Patent Application Serial No. | 15/566741 | . filed | October 16, 2017 | | |
| _ | U.S. Patent No. | , issued | d | | | |
| The PATENT RIGHTS assigned under this agreement are: X U.S. Patent rights worldwide Patent rights. In this case, the assignee shall have the right to claim the benefit of the filing date of any Patent Application identified above. | | | | | | |

The ASSIGNOR(S) do hereby assign the following to each ASSIGNEE; their successors and assigns:

an equal interest in and to the entire right, title and interest in and to the PATENT RIGHTS in the invention, all continuations, continuations-in-part, divisionals, re-issues, and re-examination patents and patent applications; and

the right to claim priority under 35 U.S.C. \S 119, based on any earlier foreign applications for this invention.

the full and exclusive right to the invention;

As to all U.S. Patent Applications assigned under this Agreement, the ASSIGNOR(S) hereby authorize(s) and request(s) the Commissioner of Patents and Trademarks to issue all Letters Patent to the ASSIGNEE(S) as the ASSIGNEE(S) of an equal interest in the entire right, title and interest, for the sole use and enjoyment of said ASSIGNEE(S), their successors and assigns.

Further, the ASSIGNOR(S) agree(s) to communicate to said ASSIGNEE(S), or their representatives, any facts known to the ASSIGNOR(S) respecting said invention, and testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, substitute, renewal, reexamination and reissue applications, execute all necessary assignment papers to cause any and all Letters Patent to be issued to said ASSIGNEE(S), make all rightful oaths and generally do everything necessary or desirable to aid said ASSIGNEE(S), their successors and assigns, to obtain and enforced proper protection for said invention.

Further, I/We authorize the attorney of record to update this document to include Patent Office information as deemed necessary (i.e., filing date, serial number, etc.);

Each Inventor: Please sign and date below:

PATENT REEL: 043868 FRAME: 0233 NC87274

[Jussi Jaatinen]

Witness Signature Printed Name PE1&

27.4.2015

PATENT REEL: 043868 FRAME: 0234

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