505907335 02/10/2020

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5954052

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SERGEY SOSNIN	06/19/2019
ALEXEY KHORYAEV	06/19/2019
SERGEY PANTELEEV	06/19/2019
MIKHAIL SHILOV	06/19/2019
DMITRY BELOV	06/19/2019
GANG XIONG	06/18/2019
HWAN-JOON KWON	09/02/2019
YUSHU ZHANG	06/19/2019
YONGJUN KWAK	06/18/2019
SEUNGHEE HAN	06/18/2019
ALEXANDER SIROTKIN	06/24/2019
CANDY YIU	06/20/2019
CARLOS ALDANA	06/24/2019
QIAN LI	06/19/2019
YOUN HYOUNG HEO	06/20/2019

RECEIVING PARTY DATA

Name:	INTEL CORPORATION
Street Address:	2200 MISSION COLLEGE BLVD.
City:	SANTA CLARA
State/Country:	CALIFORNIA
Postal Code:	95054

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16295356

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: 612-373-6900

PATENT REEL: 051859 FRAME: 0359

505907335

Email: request@slwip.com

Correspondent Name: SCHWEGMAN, LUNDBERG & WOESSNER/INTEL

Address Line 1: PO BOX 2938

Address Line 4: MINNEAPOLIS, MINNESOTA 55402

ATTORNEY DOCKET NUMBER:	1884.701US1
NAME OF SUBMITTER:	NANCY CUNDALL
SIGNATURE:	/Nancy Cundall/
DATE SIGNED:	02/10/2020

Total Attachments: 34

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RECORDATION FORM COVER SHEET PATENTS ONLY

Attv Ref/Docket No.: (AB9401-US) 1884.701US1 Patent and Trademark Office To the Director of the U.S. Patent and Trademark Office: Please record the attached original documents or copy thereof. 2. Name and address of receiving party(ies): 1. Name of conveying party(ies): Name: Intel Corporation Sergey Sosnin, Alexey Khoryaev, Sergey Panteleev, Mikhail Shilov, Dmitry Belov, Gang Xiong, Hwan-Joon Kwon, Yushu Zhang, Yongjun Kwak, Seunghee Han, Alexander Sirotkin, Candy Yiu, Carlos Aldana, Qian Li, Street Address: 2200 Mission College Blvd. City: Santa Clara State: CA Zip: 95054 Youn Hyoung Heo Country: United States of America Additional name(s) of conveying party(ies) attached? Additional name(s) & address(es) attached? []Yes [X]No []Yes [X]No 3. Nature of conveyance: [X] Assignment [] Merger [] Security Agreement [] Change of Name [] Other Execution Date: June 19, 2019, June 18, 2019, September 2, 2019, June 19, 2019, June 18, 2019, June 18, 2019, June 18, 2019, June 24, 2019, June 20, 2019, June 24, 2019, June 19, 2019, December 20, 2019 4. Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: A. Patent Application No.(s) B. Patent No.(s) Serial No. 16/295,356 Additional numbers attached? []Yes [X]No 6. Total number of applications and patents involved: 1 5. Name and address of party to whom correspondence concerning document should be mailed: 7. Total fee (37 CFR 3.41):\$ 0.00 Name: Gregory J. Gorrie [[Enclosed [Authorized to be charged to deposit account Address: 190743 Schwegman Lundberg & Woessner, P.A. P.O. Box 2938 Please charge any additional fees or credit any over Minneapolis, Minnesota 55402 payments to our Deposit Account No.: 190743 DO NOT USE THIS SPACE 9. Statement and signature. To the best of my knowledge and belief, the foregoing information is true and extrect and any attached copy is a true copy of the original document. February 07, 2020 Gregory J. Gorrie/Reg. No. 36,530 Name of Person Signing Signature Date Total number of pages including cover sheet: 34 Mail documents to be recorded with required cover sheet information to: Commissioner of Patents and Trademarks Mail Stop Assignment Recordation Services P.O. Box 1450 Alexandria, VA 22313-1450

1884.701US1

ASSIGNMENT

In consideration of good and valuable consideration, the receipt of which is hereby acknowledged, we, the undersigned inventor(s):

Sergey Sosnin, Alexey Khoryaev, Sergey Panteleev, Mikhail Shilov, Dmitry Belov, Gang Xiong, Hwan-Joon Kwon, Yushu Zhang, Yongjun Kwak, Seunghee Han, Alexander Sirotkin, Candy Yiu, Carlos Aldana, Qian Li, Youn Hyoung Heo>

hereby sell, assign, and transfer to:

Intel Corporation

a corporation of Delaware, having a principal place of business at 2200 Mission College Boulevard, Santa Clara, California, 95054 USA ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all other countries, in and to any and all inventions and improvements that are disclosed in the application for the patent entitled:

USER EQUIPMENT POSITIONING USING PRSS FROM A PLURALITY OF TRPS IN A 5G-NR NETWORK

(I hereby authorize and request any attorney having appropriate authority from the assignee to insert on the designated lines below, the filing date and application number of said application when known.)

which was filed on March 7, 2019 as

United States of America Application Number 16/295,356

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and in and to said application and all Additional Applications, and all other patent applications that have been or shall be filed in the United States and all other countries and international filing offices on any of said inventions and improvements; and in and to all original and reissued patents that have been or shall be issued in the United States and all other countries and international filing offices on said inventions and improvements; and in and to all rights of priority resulting from the filing of said applications; as used herein "Additional Applications" includes but is not limited to design, utility, utility model, divisional, continuing, continuation-in-part, substitute, renewal, reissue, and national phase applications on said inventions and improvements;

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legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all Additional Applications, and all other patent applications on any and all said inventions and improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignce, its successors, assigns, and legal representatives all facts known to the undersigned relating to said inventions and improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or legal representatives in securing and maintaining proper patent protection for said inventions and improvements and for vesting title to said inventions and improvements, and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns, and legal representatives; and

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

AL)	Jane 19,201
Sergey Sosuin	Date Signed
A John J	Jane 19 2019
Afexey Khoryawy	Date Signed
	June 19, 2019
Sergey Panteleev	Date Signed
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Eed)	Sura 19, 20 19
Dmitry Belov	Date Signed
Gang Xiong	Date Signed
Hwan-Joon Kwon	Date Signed

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Sergey Sosnin	Date Signed
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• .	
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	06/18/2019
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Mikhail Shilov	Date Signed
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2313	9/2/2019
Hwan-Joon Kwon	Date Signed

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Page 2 of 3

3K和书	2019/6/19
Yushu Zhang	Date Signed
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Yushu Zhang	Daty Signed
34Z,	6-18-2010
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and in and to said application and all Additional Applications, and all other patent applications that have been or shall be filed in the United States and all other countries and international filing offices on any of said inventions and improvements; and in and to all original and reissued patents that have been or shall be issued in the United States and all other countries and international filing offices on said inventions and improvements; and in and to all rights of priority resulting from the filing of said applications; as used herein "Additional Applications" includes but is not limited to design, utility, utility model, divisional, continuing, continuation-in-part, substitute, renewal, reissue, and national phase applications on said inventions and improvements;

and agree that said Assignee may apply for and receive a patent or patents for said inventions and improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and

legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all Additional Applications, and all other patent applications on any and all said inventions and improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and legal representatives all facts known to the undersigned relating to said inventions and improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or legal representatives in securing and maintaining proper patent protection for said inventions and improvements and for vesting title to said inventions and improvements, and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns, and legal representatives; and

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

Sergey Sosnin	Date Signed
Alexey Khoryaev	Date Signed
Sergey Panteleev	Date Signed
Mikhail Shilov	Date Signed
Dmitry Belov	Date Signed
Gang Xiong	Date Signed
Hwan-Joon Kwon	 Date Signed

Page 2 of 3

Yushu Zhang	Date Signed
Yongjun Kwak	Date Signed
Seunghee Han	Date Signed
	24-June-2019
Alexander Sirotkin	Date Signed
Candy Yiu	Date Signed
Carlos Aldana	Date Signed
Qian Li	Date Signed
Youn Hyoung Heo	 Date Signed

SLW Reference No.: (AB9401-US)

1884.701US1

ASSIGNMENT

In consideration of good and valuable consideration, the receipt of which is hereby acknowledged, we, the

undersigned inventor(s):

Sergey Sosnin, Alexey Khoryaev, Sergey Panteleev, Mikhail Shilov, Dmitry Belov, Gang

Xiong, Hwan-Joon Kwon, Yushu Zhang, Yongjun Kwak, Seunghee Han, Alexander Sirotkin,

Candy Yiu, Carlos Aldana, Qian Li, Youn Hyoung Heo>

hereby sell, assign, and transfer to:

Intel Corporation

a corporation of Delaware, having a principal place of business at 2200 Mission College Boulevard, Santa Clara,

California, 95054 USA ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and

interest for the United States and all other countries, in and to any and all inventions and improvements that are

disclosed in the application for the patent entitled:

USER EQUIPMENT POSITIONING USING PRSS FROM A PLURALITY OF TRPS IN

A 5G-NR NETWORK

(I hereby authorize and request any attorney having appropriate authority from the assignee to insert on the

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PATENT

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Yongjun Kwak	Date Signed
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Alexander Sirotkin	Date Signed
Cadone	6/20/2019
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Carlos Aldana	Date Signed
<u>Qianti</u>	06/19/2019
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