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PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
TOUFIQUL ISLAM	03/16/2018
AMINE MAAREF	03/12/2018
YONGXIA LYU	03/12/2018

RECEIVING PARTY DATA

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PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	15925452	

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ATTORNEY DOCKET NUMBER:	HW 85516330US02
NAME OF SUBMITTER:	MEGAN RUTHERFORD
SIGNATURE:	/Megan Rutherford/
DATE SIGNED:	05/07/2018

Total Attachments: 2

source=HW-85516330US02 Assignment Signed as filed 2018-05-07#page1.tif source=HW-85516330US02 Assignment Signed as filed 2018-05-07#page2.tif

PATENT 504902566 REEL: 045732 FRAME: 0898

ASSIGNMENT

WHEREAS, I/We, the undersigned inventor(s) (or one of the undersigned joint inventors), of residence as listed below, having invented certain new and useful improvements as below entitled, for which application for United States Letters Patent is made, the said application having been executed on the date set forth below; and

WHEREAS, Huawei Technologies Co., Ltd. ("Assignee"), a corporation organized and existing under the laws of China, having a principal place of business at Huawei Administration Building, Bantian, Longgang, Shenzhen, Guangdong, 518129 China, is desirous of acquiring my/our entire right, title and interest in the said invention, and to the said application and any Letters Patent that may issue thereon in the United States and all other countries throughout the world;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, I/we will assign, and hereby assign and transfer to the Assignee and the Assignee's legal representatives, successors and assigns the full and exclusive right, title and interest in and to the invention in the United States and every other country and the entire right, title, and interest in and to the patent application and other such applications (e.g., provisional applications, non-provisional applications, continuations, continuations-in-part, divisional, reissues, reexaminations, National Phase applications, including petty patent applications, and utility model applications) that may be filed in the United States and every other country on the invention, and the patents, extensions, or derivations thereof, both foreign and domestic, that may issue thereon, and I/we do hereby authorize and request the Commissioner for Patents to issue U.S. patents for said invention, or patent resulting therefrom, insofar as my/our interest is concerned, to the Assignee agreeably with the terms of this assignment document.

I/we also hereby agree to sell and to assign, and sell and assign to Assignee, its successors and assigns, my/our international rights to the invention disclosed in said application, in all countries of the world, including, but not limited to, the right to file applications and obtain patents under the terms of any International Convention, and further agree to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights.

I/we hereby further agree that I/we will communicate to Assignee, or its successors, assigns, and legal representative, any facts known to me/us respecting said invention or the file history thereof, and at the expense of said assignee company, testify in any legal proceedings, sign all lawful papers, execute all documents required for divisional, continuation, reissue and substitute applications, make all lawful oaths, and generally do everything possible to aid such Assignee, its successors, assigns and nominees to obtain and enforce proper patent protection for said

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ASSIGNMENT

invention in all countries.

I/we hereby authorize Assignee to modify this Assignment at a later date for the purpose of adding information to better identify the invention, such as the application serial number, and filing date of a patent application filed thereon.

IN WITNESS WHEREOF, I hereunto set my hand and seal this day and year;

Signature of Inventor: Inventor Name: Residence (City/State): Signature of Witness:	Appl. No. Toufiqui Islam Ottawa, ON	Filing Date: Date S3/16/2018
Inventor Name: Residence (City/State):	Toufiqui Islam Ottawa, ON CUA	Date 83/16/2018
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Signature of Witness:	Charles Trans	
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Residence (City/State):	UNISMO LIGIOU —	
Signature of Inventor: Inventor Name: Residence (City/State):	Amine Maaref Kanata, ON	Date NGLKQ,Qo
Signature of Witness: Witness Name: Residence (City/State):	物 2	Date Nay 12, 2
Signature of Inventor:	Yongxia LYU	
Inventor Name:	Yongxia Lyu	Date July - 7-12
Residence (City/State):	Beijing, CN	
Signature of Witness: Witness Name:	書とCi Yu Cao	Date May 12, 20

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