

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT7014638

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
SENGLLEE FOO	03/10/2021
WEN TONG	03/09/2021
RECEIVING PARTY DATA	
Name:	HUAWEI TECHNOLOGIES CO., LTD.
Street Address:	HUAWEI ADMINISTRATION BUILDING
Internal Address:	BANTIAN, LONGGANG, SHENZHEN, GUANGDONG
City:	SHENZHEN
State/Country:	CANADA
Postal Code:	518129
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	17195089
CORRESPONDENCE DATA	
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<i>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.</i>	
Phone:	613-801-0163
Email:	cnaugler@mbm.com
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Address Line 2:	14TH FLOOR
Address Line 4:	OTTAWA, CANADA K1P 5H9
ATTORNEY DOCKET NUMBER:	87063846US01
NAME OF SUBMITTER:	CELESTE NAUGLER
SIGNATURE:	/Celeste Naugler/
DATE SIGNED:	11/09/2021
Total Attachments: 4	
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source=87063846US01-Assignment-Foo-signed#page2.tif	
source=87063846US01-Assignment-TONG-Signed1#page1.tif	

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 in a way that effectively on the date that the application is filed or a priority date or priority dates that the application claims; 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,

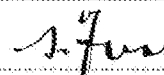
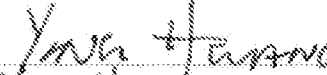
ASSIGNMENT

assigns and nominees to obtain and enforce proper patent protection for said 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;

Title of Invention	METHOD AND APPARATUS FOR COMMUNICATION USING MASSIVE-BEAM MIMO PHASED ARRAY	
	Appl. No. 17/195,089	Filing Date: March 8, 2021

Signature of Inventor:		
Inventor Name:	FOO, Senglee	Date MAR 10, 2021
Residence (City/State):	Ottawa/ON	
Signature of Witness:		
Witness Name:	YING HUANG	Date MAR 10, 2021
Residence (City/State):	OTTAWA, ONTARIO, CANADA	

Signature of Inventor:		
Inventor Name:	TONG, Wen	Date
Residence (City/State):	Ottawa/ON	
Signature of Witness:		
Witness Name:		Date
Residence (City/State):		

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 in a way that effectively on the date that the application is filed or a priority date or priority dates that the application claims; 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,

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	Appl. No. 17/195,089	Filing Date: March 8, 2021

Signature of Inventor:	
Inventor Name:	FOO, Senglee	Date
Residence (City/ State):	Ottawa/ ON
Signature of Witness:	
Witness Name:	Date
Residence (City/ State):	

Signature of Inventor:		
Inventor Name:	TONG, Wen	Date March 9, 2021
Residence (City/ State):	Ottawa/ ON
Signature of Witness:		
Witness Name:	Shannon Hodgins	Date March 9, 2021
Residence (City/ State):	Ottawa, Ontario