505120461 10/01/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5167222

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
YAN XIN	09/27/2018
SHENG SUN	09/27/2018
HUAN WU	09/27/2018

RECEIVING PARTY DATA

Name:	HUAWEI TECHNOLOGIES CO., LTD.
Street Address:	HUAWEI ADMINISTRATION BUILDING, BANTIAN, LONGGANG
City:	SHENZHEN, GUANGDONG
State/Country:	CHINA
Postal Code:	518129

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16148374

CORRESPONDENCE DATA

Fax Number: (613)236-2485

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: (613)236-1995

Email: ipinfo@ridoutmaybee.com
Correspondent Name: RIDOUT & MAYBEE LLP

Address Line 1: 11 HOLLAND AVENUE, SUITE 601

Address Line 4: OTTAWA, CANADA K1Y 4S1

ATTORNEY DOCKET NUMBER:	50874-3274
NAME OF SUBMITTER:	CHRISTINE WONG
SIGNATURE:	/Christine Wong/
DATE SIGNED:	10/01/2018

Total Attachments: 4

505120461

source=Assignment#page1.tif source=Assignment#page2.tif source=Assignment#page3.tif source=Assignment#page4.tif

> PATENT REEL: 047021 FRAME: 0035

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,

Huawei Technologies Co., Ltd. Patent Reference No. 85613387US02

Page 1 of 2

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.

CO-CHANNEL INTERFERENCE REDUCTION IN

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

	MMWAVE NETWORKS		
	Appl. No.	Fili	ng Date:
	16/148,374	Oct	ober 1, 2018
Signature of Inventor:	4 2		
Inventor Name:	Yan Xin	Date	50151. 25 2016
Residence (City/State):	Ottawa/Ontario	ONDALIBOREUM DE LE CONTRACTOR DE LE CONT	
Signature of Witness:	8. Vnij		
Witness Name:	Sophie Vrere	Date	Sept. 27, 2018
Residence (City/State):	Sphie Viere Kanaln	•••••••••••••••••••••••••••••••••••••••	***************************************
	<u> </u>	eger	
Signature of Inventor:			
Inventor Name:	Sheng Sun	Date	Sept. 27-2018
Residence (City/State):	Ottawa/Ontario		
Signature of Witness:	I. Varie		
Witness Name:	Sophie Vizor	Date	Sept. 27, 2018
Residence (City/State):	<u> </u>		,
Signature of Inventor:			
Inventor Name:	Huan Wu	Date	
Residence (City/State):	Ottawa/Ontario		**************************************
Signature of Witness:			
Witness Name:		Date	
Residence (City/State):			

Huawei Technologies Co., Ltd. Patent Reference No. 85613387US02

Title of Invention

Page 2 of 2

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, Huswei Technologies Co., Ltd. ("Assignee"), a corporation organized and existing under the laws of China, having a principal place of business at Huswei 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 paths, and generally do everything possible to aid such Assignee, its successors,

Huawei Technologies Co., Ltd. Patent Reference No. 85613387US02 Page 1 of 2

ASSIGNMENT

assigns and nominees to obtain and enforce proper patent protection for said invention in all countries.

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

Title of Invention	CO-CHANNEL INTERFERENCE REDUCTION IN MMWAVE NETWORKS	
	Appl. No.	Filing Date:
	16/148,374	October 1, 2018
Signature of Inventor:		
Inventor Name:	Yan Xin	Date
Residence (City/State):	Ottawa/Ontario	
Signature of Witness:		
Witness Name:		Date
Residence (City/State):		
Signature of Inventor:		
Inventor Name:	Sheng San	Date
Residence (City/State):	Ottawa/Ontario	
Signature of Witness:		
Witness Name:		Date
Residence (City/State):		
Signature of Inventor:	Jan Jan	
Inventor Name:	Hum Wu	Dete Sept. 27, 2018
Residence (City/State):	Ottawa/Ontario	· · · · · · · · · · · · · · · · · · ·
Signature of Witness:	LUING DONG	
Witness Name:	WENDENG DONG	Date Sept, 27, 20/8
Residence (City/State):	Ottowa / Ontoco	,

Huawei Technologies Co., Ltd. Patent Reference No. 85613387USO2 Page 2 of 2

PATENT REEL: 047021 FRAME: 0039