506655544 05/11/2021

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6702355

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
HALIM BOUTAYEB	03/11/2021
XIN FENG	03/12/2021
WENYAO ZHAI	03/11/2021
FAYEZ HYJAZIE	03/17/2021
WEN TONG	03/11/2021

RECEIVING PARTY DATA

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

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	17130364

CORRESPONDENCE DATA

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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.

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BCF LLP Correspondent Name:

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ATTORNEY DOCKET NUMBER: 43564-112 NAME OF SUBMITTER: MELANIE DESAULNIERS SIGNATURE: /Melanie Desaulniers/ **DATE SIGNED:** 05/11/2021

Total Attachments: 6

PATENT REEL: 056196 FRAME: 0852

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PATENT REEL: 056196 FRAME: 0853

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. 86507858US01

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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	DUAL-POLARIZED SUBSTRATE-INTEGRATED 360° BEAM STEERING ANTENNA		
	Appl. No. 17/130,364	Filing Date: 12/22/2020	

Signature of Inventor:	(al	
Inventor Name:	BOUTAYEB, Halim	Date 11 man 202
Residence (City/State):	Kanata, Canada	man, maniana ana manjarang manana ana man
Signature of Witness: Witness Name:	Sou Caimane Bekane	Date M. mars 20.2)
Residence (City/State):	Oftawa	
		·
Signature of Inventor:		
Inventor Name:	FENG, Xin	Date
Residence (City/State):		
Signature of Witness:		
Witness Name:		Date
Residence (City/State):		

Huawei Technologies Co., Ltd. Patent Reference No. 86507858US01 10112777.1

Page 2 of 3

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	DUAL-POLARIZED SUBSTRATE-INTEGRATED 360° BEAM STEERING ANTENNA		
	Appl. No.	Filing Date:	

Signature of Inventor:			
Inventor Name:	BOUTAYEB, Halim	Date	
Residence (City/State):	Kanata, Canada	THE STATE OF THE S	
Signature of Witness:			
Witness Name:		Date	
Residence (City/State):		g gygg gyddiadd a dae a fael ad Acodennog engenyn og engeny	alada angana a seemen ee e

Signature of Inventor:	>3/2V		
Inventor Name:	FENG, Xin	Date	2021/03/12
Residence (City/State):	Cherydu, Sichuan		Historian and the second secon
Signature of Witness:	30 Air		
Witness Name:	ZHANG, Zhao	Date	2021/02/12
Residence (City/State):	Chengoh, Sichuan		

Huawei Technologies Co., Ltd. Patent Reference No. 86507858US01 10112777.1

Page 2 of 3

	<u> </u>			
Signature of Inventor:	Jak			
Inventor Name:	ZHAI, Wenyao	Date	11st March	202
Residence (City/State):	Kanata, Canada		was a sanga a sagara sa a sa	
Signature of Witness: Witness Name: Residence (City/State):	Tanja OHawa ON	Date	11 ⁵⁴ M21ch 2	1821
Residence (Chy/Mate).		***************************************		
Signature of Inventor:				vanononon
Inventor Name:	HYJAZIE, Fayez	Date		
Residence (City/State):	Ottawa, Canada		n de la composition de la composition Tenna de la composition della composition dell	
Signature of Witness:				
Witness Name:		Date		anana anana anana shirat ahah
Residence (City/State):			2012 2012 2012 2012 2012 2012 2012 2012	

Signature of Inventor:				
Inventor Name:	TONG, Wen	Date		**************
Residence (City/State):	Ottawa, Canada			
Signature of Witness:				
Witness Name:		Date		iii
Residence (City/State):		y-many/		ananna a timerime ri

PATENT REEL: 056196 FRAME: 0857

ASSIGNMENT			

Signature of Invertor:	contraction of the same same same same process of the same same same same same same same sam	Date	a managa i daga a dagang arawa arah da da dagan kanaga i banagan
Inventor Name:	ZHAI, Wenyao	Dane.	***************************************
Residence (City/State)	Kansta, Canada		
Signature of Witness:		and the second second second second	
Witness Name.		Date	
Residence (City/State):			
Signature of Inventor: Inventor Name: Residence (City/State):	HYJAZIE, Fayez Ottawa, Canada	Date	17/03/2021
Signature of Witness:	200		28 /m & for a m 3
Witness Name:	Batarela Hyzazia	19896	17/05/2021
Residence (City/State):	OHAWA CHRAGO		***************************************
Signature of inventor:		Date	******************************
Inventor Name:	TONG, Wen	13888	appropriate and the state of th
Sanishaman Win / States	Ottawa Canada		

Huawei Technologies Co., Ud. Patent Reference No. 86507858U801 101127771

Signature of Witness: Witness Name: Residence (City/State):

Page 3 of 3

Signature of Inventor:			
Inventor Name:	ZHAI, Wenyao	Date	
Residence (City/State):	Kanata, Canada		
Signature of Witness:			
Witness Name:		Date	
Residence (City/State):			
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Sign ature of Inventor.			
Signature of Inventor: Inventor Name:	UVIAZIE Forroz	Date	
Residence (City/State):	Ottowo Conodo	Date	
Residence (City/State):	Ottawa, Canada		
Signature of Witness:			
Witness Name:		Date	
Residence (City/State):			
Signature of Inventor:			
Inventor Name:	TONG, Wen	Date	March 11, 2021
Residence (City/State):	Ottawa, Canada		
Signature of Witness:	Shodjne		
Witness Name:	Shannon Hodgins	Date M	larch 11, 2021
Residence (City/State):	Ottawa, Ontario		

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