506954556 11/02/2021

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT7001394

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
LIXIAN WANG	10/28/2021
FRÉDÉRIC MAES	10/28/2021
ZHIPING JIANG	10/28/2021

RECEIVING PARTY DATA

Name:	HUAWEI TECHNOLOGIES CANADA CO., LTD.	
Street Address:	303 TERRY FOX DRIVE	
Internal Address:	SUITE 400	
City:	KANATA	
State/Country:	CANADA	
Postal Code:	K2K 3J1	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	17396268

CORRESPONDENCE DATA

Fax Number: (613)563-7671

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: 613-801-0163 Email: cnaugler@mbm.com

MBM INTELLECTUAL PROPERTY LAW LLP **Correspondent Name:**

Address Line 1: 275 SLATER STREET

Address Line 2: 14TH FLOOR

Address Line 4: OTTAWA, CANADA K1P 5H9

ATTORNEY DOCKET NUMBER:	87400964US01
NAME OF SUBMITTER:	CELESTE NAUGLER
SIGNATURE:	/Celeste Naugler/
DATE SIGNED:	11/02/2021

Total Attachments: 6

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> **PATENT REEL: 057990 FRAME: 0046** 506954556

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> PATENT REEL: 057990 FRAME: 0047

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 Canada Co., Ltd. ("Assignee"), a corporation organized and existing under the laws of Canada, having a place of business at 303 Terry Fox Drive, Suite 400, Kanata, Ontario, Canada K2K 3J1, 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,

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.

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

Title of Invention	SYSTEMS AND METHODS TO INCREASE PUMP CONVERSION EFFICIENCY OF AN OPTICAL FIBER	
	Appl. No. 17/396,268	Filing Date: August 6, 2021

	7211/2		
Signature of Inventor:	WW7/		
Inventor Name:	WANG, Lixian	Date	Oct. 28th, 2021
Residence (City/State):	Québec/QC		
	soyen j) v		
Signature of Witness:	Jiadwan Lin		MANNER BY I LULAND CYTALIAN CYTALIAN CYTALIAN CHARLES FOR AND SERVICE AND SERV
Witness Name:	Jiachuan Lin	Date	Oct. 28, 2021
Residence (City/State):	Quebec/QC		
Signature of Inventor:			
Inventor Name:	MAES, Frédéric	Date	
Residence (City/State):	Québec/QC		
Signature of Witness:			
Witness Name:		Date	
Residence (City/State):			
Signature of Inventor:			
Inventor Name:	JIANG, Zhiping	Date	
Residence (City/State):	Kanata/ON		
Signature of Witness:			
Witness Name:		Date	
Residence (City/State):			

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

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Title of Invention	SYSTEMS AND METHODS TO INCREASE PUMP CONVERSION EFFICIENCY OF AN OPTICAL FIBER	
	Appl. No. 17/396,268	Filing Date: August 6, 2021

Signature of Inventor:			
Inventor Name:	WANG, Lixian	Date	
Residence (City/State):	Québec/QC		
Signature of Witness:			
Witness Name:		Date	
Residence (City/State):			
_	A THE STATE OF THE		
Signature of Inventor:			
Inventor Name:	MAES, Frédéric	Date	28 / 10 /2021
Residence (City/State):	Québec/QC		
Signature of Witness:	Moniels		
Witness Name:	Bertrand, Marie	Date	28 / 10 / 2021
Residence (City/State):	Québec / QC		
Signature of Inventor:			
Inventor Name:	JIANG, Zhiping	Date	
Residence (City/State):	Kanata/ON		
Signature of Witness:			
Witness Name:		Date	
Residence (City/State):		Date	

Page 2 of 2

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SYSTEMS AND METHODS TO INCREASE PUMP

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

	CONVERSION EFFICIENCY OF AN OPTICAL FIBER		
	Appl. No.	Filing Date:	
	17/396,268	August 6, 2021	
Signature of Inventor:			
Inventor Name:	WANG, Lixian	Date	
Residence (City/State):	Quêbec/QC		
Signature of Witness:			
Witness Name:	,,,	Date	
Residence (City/State):			
Signature of Inventor:			
Inventor Name:	MAES, Frédéric	Date	
Residence (City/State):	Québec/QC		
Signature of Witness:			
Witness Name:		Date	
Residence (City/State):			
	my		
Signature of Inventor:	Zhipino Jians		
Inventor Name:	JIANG, Zhiping	Date Od. 28, 2021	
Residence (City/State):	Kanata/ON		
Signature of Witness:			
Witness Name:	Huduan Zens	Date 021 28, 2-021	
Residence (City/State):	Kanata /ov		

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PATENT REEL: 057990 FRAME: 0053

Title of Invention