

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT5240632

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
XIANG LIU	05/18/2017
FRANK EFFENBERGER	05/17/2017
HUAIYU ZENG	05/17/2017
SHUCHANG YAO	05/17/2017
LEI ZHOU	05/17/2017
XIANBO DAI	05/18/2017
SHENGMING MA	05/18/2017
LIN HUANG	05/17/2017
RECEIVING PARTY DATA	
Name:	Futurewei Technologies, Inc.
Street Address:	5700 Tennyson Parkway
Internal Address:	Suite 600
City:	Plano
State/Country:	TEXAS
Postal Code:	75024
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	16179606
CORRESPONDENCE DATA	
Fax Number:	(972)731-2289
<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:	972-731-2288
Email:	dallaspatents@dfw.conleyrose.com
Correspondent Name:	WILLIAM H. DIETRICH
Address Line 1:	5601 GRANITE PARKWAY, SUITE 500
Address Line 4:	PLANO, TEXAS 75024-6616
ATTORNEY DOCKET NUMBER:	4502-25701 (85308607US03)
NAME OF SUBMITTER:	JONATHAN K. POLK

SIGNATURE:	/Jonathan K. Polk/
DATE SIGNED:	11/16/2018
Total Attachments: 7 source=4502-25701 Filed Assignment-parent#page1.tif source=4502-25701 Filed Assignment-parent#page2.tif source=4502-25701 Filed Assignment-parent#page3.tif source=4502-25701 Filed Assignment-parent#page4.tif source=4502-25701 Filed Assignment-parent#page5.tif source=4502-25701 Filed Assignment-parent#page6.tif source=4502-25701 Filed Assignment-parent#page7.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 on the date set forth below; and

WHEREAS, Futurewei Technologies, Inc. ("Assignee"), a corporation organized and existing under the laws of Texas, with its principal office at 5340 Legacy Drive, Suite 175, Plano, TX 75024 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 foreign 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 foreign 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 interest is concerned, to the Assignee agreeably with the terms of this assignment document.

I also hereby agree to sell and to assign, and sell and assign to Assignee, its successors and assigns, my foreign 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 the 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 hereby further agree that I will communicate to Assignee, or its successors, assigns, and legal representative, any facts known to me 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 divisional, continuation, reissue and substitute applications, make all lawful oaths, and generally do everything possible to aid such Futurewei, its successors, assigns and nominees to obtain and enforce proper patent protection for said invention in all countries.

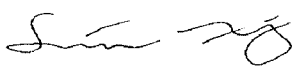
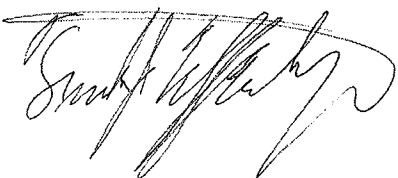
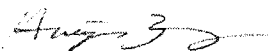
Futurewei Technologies, Inc.
Patent Reference No. 85308607US01
Conley Rose File: 4502-25700

Page 1 of 2

PATENT
REEL: 047520 FRAME: 0843

ASSIGNMENT

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

Title of Invention	Channel Recovery in Burst-Mode, Time-Division Multiplexing (TDM) Passive Optical Networks (PONs)	
	Appl. No. 15/477,754	Filing Date: April 3, 2017
Signature of Inventor		
Inventor Name	Xiang Liu	Lei Zhou
Date	5/18/2017	
Residence (City/State)	Marlboro, New Jersey	Shenzhen, China
Signature of Inventor		
Inventor Name	Frank Effenberger	Xianbo Dai
Date	17 May 2017	
Residence (City/State)	Frisco, Texas	Chengdu, China
Signature of Inventor		
Inventor Name	Huaiyu Zeng	Shengming Ma
Date	5/17/2017	
Residence (City/State)	Red Bank, New Jersey	Chengdu, China
Signature of Inventor		
Inventor Name	Shuchang Yao	Lin Huang
Date		
Residence (City/State)	Wuhan, China	Chengdu, China

ASSIGNMENT

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

Title of Invention	Channel Recovery in Burst-Mode, Time-Division Multiplexing (TDM) Passive Optical Networks (PONs)	
	Appl. No. 15/477,754	Filing Date: April 3, 2017
Signature of Inventor		
Inventor Name	Xiang Liu	Lei Zhou
Date		
Residence (City/State)	Marlboro, New Jersey	Shenzhen, China
Signature of Inventor		
Inventor Name	Frank Effenberger	Xianbo Dai
Date		
Residence (City/State)	Frisco, Texas	Chengdu, China
Signature of Inventor		
Inventor Name	Huaiyu Zeng	Shengming Ma
Date		
Residence (City/State)	Red Bank, New Jersey	Chengdu, China
Signature of Inventor	<i>Shuchang Yao</i>	
Inventor Name	Shuchang Yao	Lin Huang
Date	<i>May 17th, 2017</i>	
Residence (City/State)	Wuhan, China	Chengdu, China

ASSIGNMENT

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

Title of Invention	Channel Recovery in Burst-Mode, Time-Division Multiplexing (TDM) Passive Optical Networks (PONs)	
	Appl. No. 15/477,754	Filing Date: April 3, 2017
Signature of Inventor		<i>Lei Zhou</i>
Inventor Name	Xiang Liu	Lei Zhou
Date		<i>May 17, 2017</i>
Residence (City/State)	Marlboro, New Jersey	Shenzhen, China
Signature of Inventor		
Inventor Name	Frank Effenberger	Xianbo Dai
Date		
Residence (City/State)	Frisco, Texas	Chengdu, China
Signature of Inventor		
Inventor Name	Huaiyu Zeng	Shengming Ma
Date		
Residence (City/State)	Red Bank, New Jersey	Chengdu, China
Signature of Inventor		
Inventor Name	Shuchang Yao	Lin Huang
Date		
Residence (City/State)	Wuhan, China	Chengdu, China

ASSIGNMENT

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

Title of Invention	Channel Recovery in Burst-Mode, Time-Division Multiplexing (TDM) Passive Optical Networks (PONs)	
	Appl. No. 15/477,754	Filing Date: April 3, 2017
Signature of Inventor		
Inventor Name	Xiang Liu	Lei Zhou
Date		
Residence (City/State)	Marlboro, New Jersey	Shenzhen, China
Signature of Inventor		<i>Xianbo Dai</i>
Inventor Name	Frank Effenberger	Xianbo Dai
Date		<i>May 18th, 2017</i>
Residence (City/State)	Frisco, Texas	Chengdu, China
Signature of Inventor		
Inventor Name	Huaiyu Zeng	Shengming Ma
Date		
Residence (City/State)	Red Bank, New Jersey	Chengdu, China
Signature of Inventor		
Inventor Name	Shuchang Yao	Lin Huang
Date		
Residence (City/State)	Wuhan, China	Chengdu, China

ASSIGNMENT

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

Title of Invention	Channel Recovery in Burst-Mode, Time-Division Multiplexing (TDM) Passive Optical Networks (PONs)	
	Appl. No. 15/477,754	Filing Date: April 3, 2017
Signature of Inventor		
Inventor Name	Xiang Liu	Lei Zhou
Date		
Residence (City/State)	Marlboro, New Jersey	Shenzhen, China
Signature of Inventor		
Inventor Name	Frank Effenberger	Xianbo Dai
Date		
Residence (City/State)	Frisco, Texas	Chengdu, China
Signature of Inventor		<i>Shengming Ma</i>
Inventor Name	Huaiyu Zeng	Shengming Ma
Date		<i>May 18th, 2017</i>
Residence (City/State)	Red Bank, New Jersey	Chengdu, China
Signature of Inventor		
Inventor Name	Shuchang Yao	Lin Huang
Date		
Residence (City/State)	Wuhan, China	Chengdu, China

ASSIGNMENT

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

Title of Invention	Channel Recovery in Burst-Mode, Time-Division Multiplexing (TDM) Passive Optical Networks (PONs)	
	Appl. No. 15/477,754	Filing Date: April 3, 2017
Signature of Inventor		
Inventor Name	Xiang Liu	Lei Zhou
Date		
Residence (City/State)	Marlboro, New Jersey	Shenzhen, China
Signature of Inventor		
Inventor Name	Frank Effenberger	Xianbo Dai
Date		
Residence (City/State)	Frisco, Texas	Chengdu, China
Signature of Inventor		
Inventor Name	Huaiyu Zeng	Shengming Ma
Date		
Residence (City/State)	Red Bank, New Jersey	Chengdu, China
Signature of Inventor		<i>Lin Huang</i>
Inventor Name	Shuchang Yao	Lin Huang
Date		<i>May 17th, 2017</i>
Residence (City/State)	Wuhan, China	Chengdu, China