

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT5545076

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
RUI HUANG	09/17/2018
YANG TANG	06/04/2018
JIE CUI	06/05/2018
RECEIVING PARTY DATA	
Name:	INTEL IP CORPORATION
Street Address:	2200 MISSION COLLEGE BOULEVARD
City:	SANTA CLARA
State/Country:	CALIFORNIA
Postal Code:	95054
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	16464927
CORRESPONDENCE DATA	
Fax Number:	(919)999-2798
<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:	919-636-4767
Email:	intel@kdbfirm.com
Correspondent Name:	KACVINSKY DAISAK BLUNI PLLC
Address Line 1:	430 DAVIS DRIVE
Address Line 2:	SUITE 150
Address Line 4:	MORRISVILLE, NORTH CAROLINA 27560
ATTORNEY DOCKET NUMBER:	D146774-PCT-US/1020146774
NAME OF SUBMITTER:	KENLEY W. POTTS
SIGNATURE:	/Kenley W. Potts/
DATE SIGNED:	05/29/2019
Total Attachments: 6	
source=D146774-PCT_SignedPCTAssignment#page1.tif	
source=D146774-PCT_SignedPCTAssignment#page2.tif	
source=D146774-PCT_SignedPCTAssignment#page3.tif	

source=D146774-PCT_SignedPCTAssignment#page4.tif
source=D146774-PCT_SignedPCTAssignment#page5.tif
source=D146774-PCT_SignedPCTAssignment#page6.tif

ASSIGNMENT

In consideration of good and valuable consideration, the receipt of which is hereby acknowledged, we, the undersigned inventor(s):

HUANG, Rui; TANG, Yang; CUI, Jie

hereby sell, assign, and transfer to:

Intel IP Corporation

a corporation of Delaware, having a principal place of business at 2200 Mission College Boulevard, Santa Clara, California, 95054 USA ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all other countries, in and to any and all inventions and improvements that are disclosed in the application for the patent entitled:

METHODS AND ARRANGEMENTS FOR WIDE BANDWIDTH COMMUNICATIONS

(I hereby authorize and request any attorney having appropriate authority from the assignee to insert on the designated lines below, the filing date and application number of said application when known.)

which was filed on March 23, 2018 as
International Application Number PCT/CN2018/080252 and
COUNTRY or International Office

which has been executed by the undersigned prior hereto or concurrently herewith on the date(s) indicated below,

and in and to said application and all Additional Applications, and all other patent applications that have been or shall be filed in the United States and all other countries and international filing offices on any of said inventions and improvements; and in and to all original and reissued patents that have been or shall be issued in the United States and all other countries and international filing offices on said inventions and improvements; and in and to all rights of priority resulting from the filing of said applications; as used herein "Additional Applications" includes but is not limited to design, utility, utility model, divisional, continuing, continuation-in-part, substitute, renewal, reissue, and national phase applications on said inventions and improvements;

and agree that said Assignee may apply for and receive a patent or patents for said inventions and improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all Additional Applications, and all other patent applications on any and all said inventions and improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and legal representatives all facts known to the undersigned relating to said inventions and improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or legal representatives in securing and maintaining proper patent protection for said inventions and improvements and for vesting title to said inventions and

improvements, and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns, and legal representatives; and

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

Rui Huang

Rui Huang

9/17/18

Date signed

Yang Tang

Date signed

Jie Cui

Date signed

ASSIGNMENT

In consideration of good and valuable consideration, the receipt of which is hereby acknowledged, we, the undersigned inventor(s):

HUANG, Rui; TANG, Yang; CUI, Jie

hereby sell, assign, and transfer to:

Intel IP Corporation

a corporation of Delaware, having a principal place of business at 2200 Mission College Boulevard, Santa Clara, California, 95054 USA ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all other countries, in and to any and all inventions and improvements that are disclosed in the application for the patent entitled:

METHODS AND ARRANGEMENTS FOR WIDE BANDWIDTH COMMUNICATIONS

(I hereby authorize and request any attorney having appropriate authority from the assignee to insert on the designated lines below, the filing date and application number of said application when known.)

which was filed on March 23, 2018 as
International Application Number PCT/CN2018/080252 and
COUNTRY or International Office

which has been executed by the undersigned prior hereto or concurrently herewith on the date(s) indicated below,

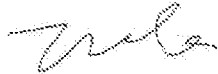
and in and to said application and all Additional Applications, and all other patent applications that have been or shall be filed in the United States and all other countries and international filing offices on any of said inventions and improvements; and in and to all original and reissued patents that have been or shall be issued in the United States and all other countries and international filing offices on said inventions and improvements; and in and to all rights of priority resulting from the filing of said applications; as used herein "Additional Applications" includes but is not limited to design, utility, utility model, divisional, continuing, continuation-in-part, substitute, renewal, reissue, and national phase applications on said inventions and improvements;

and agree that said Assignee may apply for and receive a patent or patents for said inventions and improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all Additional Applications, and all other patent applications on any and all said inventions and improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and legal representatives all facts known to the undersigned relating to said inventions and improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or legal representatives in securing and maintaining proper patent protection for said inventions and improvements and for vesting title to said inventions and

improvements, and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns, and legal representatives; and

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

Rui Huang



Date signed

6/4/2018

Yang Tang

Date signed

Jie Cui

Date signed

ASSIGNMENT

In consideration of good and valuable consideration, the receipt of which is hereby acknowledged, we, the undersigned inventor(s):

HUANG, Rui; TANG, Yang; CUI, Jie

hereby sell, assign, and transfer to:

Intel IP Corporation

a corporation of Delaware, having a principal place of business at 2200 Mission College Boulevard, Santa Clara, California, 95054 USA ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all other countries, in and to any and all inventions and improvements that are disclosed in the application for the patent entitled:

METHODS AND ARRANGEMENTS FOR WIDE BANDWIDTH COMMUNICATIONS

(I hereby authorize and request any attorney having appropriate authority from the assignee to insert on the designated lines below, the filing date and application number of said application when known.)

which was filed on March 23, 2018 as
International Application Number PCT/CN2018/080252 and
COUNTRY or International Office

which has been executed by the undersigned prior hereto or concurrently herewith on the date(s) indicated below;

and in and to said application and all Additional Applications, and all other patent applications that have been or shall be filed in the United States and all other countries and international filing offices on any of said inventions and improvements; and in and to all original and reissued patents that have been or shall be issued in the United States and all other countries and international filing offices on said inventions and improvements; and in and to all rights of priority resulting from the filing of said applications; as used herein "Additional Applications" includes but is not limited to design, utility, utility model, divisional, continuing, continuation-in-part, substitute, renewal, reissue, and national phase applications on said inventions and improvements;

and agree that said Assignee may apply for and receive a patent or patents for said inventions and improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all Additional Applications, and all other patent applications on any and all said inventions and improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and legal representatives all facts known to the undersigned relating to said inventions and improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or legal representatives in securing and maintaining proper patent protection for said inventions and improvements and for vesting title to said inventions and

improvements, and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns, and legal representatives; and

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

Rui Huang

Date signed

Yang Tang

Date signed

Jie Cui

Jie Cui

06/05/2018

Date signed