506640513 04/30/2021

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6687323

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
BO GAO	04/21/2021
ZHAOHUA LU	04/25/2021
YU NGOK LI	04/30/2021
KE YAO	04/22/2021
CHUANGXIN JIANG	04/25/2021
HAO WU	04/20/2021

RECEIVING PARTY DATA

Name:	ZTE CORPORATION
Street Address:	ZTE PLAZA, KEJI ROAD SOUTH
Internal Address:	HI-TECH INDUSTRIAL PARK, NANSHAN
City:	SHENZHEN, GUANGDONG
State/Country:	CHINA
Postal Code:	518057

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	17246432

CORRESPONDENCE DATA

Fax Number:

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: 206-359-8000

Email: patentprocurement@perkinscoie.com

Correspondent Name: PERKINS COIE LLP - SDO GENERAL

Address Line 1: PO BOX 1247

Address Line 4: SEATTLE, WASHINGTON 98111-1247

ATTORNEY DOCKET NUMBER:	125096-8144.US00
NAME OF SUBMITTER:	GREG GERARDI
SIGNATURE:	/Greg Gerardi/
DATE SIGNED:	04/30/2021

This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 18

source=2021-04-30 Combined Declaration and Assignment signed 125096-8144US00#page1.tif source=2021-04-30 Combined Declaration and Assignment signed 125096-8144US00#page2.tif source=2021-04-30 Combined Declaration and Assignment signed 125096-8144US00#page3.tif source=2021-04-30 Combined Declaration and Assignment signed 125096-8144US00#page4.tif source=2021-04-30 Combined Declaration and Assignment signed 125096-8144US00#page5.tif source=2021-04-30 Combined Declaration and Assignment signed 125096-8144US00#page6.tif source=2021-04-30 Combined Declaration and Assignment signed 125096-8144US00#page7.tif source=2021-04-30 Combined Declaration and Assignment signed 125096-8144US00#page8.tif source=2021-04-30 Combined Declaration and Assignment signed 125096-8144US00#page9.tif source=2021-04-30 Combined Declaration and Assignment signed 125096-8144US00#page10.tif source=2021-04-30 Combined Declaration and Assignment signed 125096-8144US00#page11.tif source=2021-04-30_Combined_Declaration_and_Assignment_signed_125096-8144US00#page12.tif source=2021-04-30 Combined Declaration_and_Assignment_signed_125096-8144US00#page13.tif source=2021-04-30 Combined Declaration and Assignment signed 125096-8144US00#page14.tif source=2021-04-30 Combined Declaration and Assignment signed 125096-8144US00#page15.tif source=2021-04-30 Combined Declaration and Assignment signed 125096-8144US00#page16.tif source=2021-04-30 Combined Declaration and Assignment signed 125096-8144US00#page17.tif source=2021-04-30 Combined Declaration and Assignment signed 125096-8144US00#page18.tif

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Applicant(s): ZTE Corporation

Inventor(s): Bo Gao et al.

Application No.: Unassigned Confirmation No.: Unassigned

Filing Date: Herewith

Title: GROUP-SPECIFIC RESOURCE

INDICATIONS FOR UPLINK TRANSMISSIONS

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

DECLARATION AND ASSIGNMENT BY INVENTOR UNDER RULE 37 C.F.R. § 1.63

I, Bo Gao, of Shenzhen, Guangdong, P.R. China, hereby declare that:

I believe I am the sole original inventor or an original joint inventor of a claimed invention in a patent application entitled:

GROUP-SPECIFIC RESOURCE INDICATIONS FOR UPLINK TRANSMISSIONS

which is attached hereto and identified as Attorney Docket No. 125096-8144.US00, and which is a continuation of and claims benefit of priority to International Patent Application No. PCT/CN2018/113834, filed on November 2, 2018.

I believe the following persons are original joint inventors of the above-identified patent application(s):

Zhaohua Lu, of Shenzhen, Guangdong, P.R. China;

Yu Ngok Li, of Shenzhen, Guangdong, P.R. China;

Ke Yao, of Shenzhen, Guangdong, P.R. China;

Chuangxin Jiang, of Shenzhen, Guangdong, P.R. China; and

Hao Wu, of Shenzhen, Guangdong, P.R. China.

The above-identified application was made or authorized to be made by me.

I have reviewed and understand the contents of the above-identified patent application including the claims.

Inventor : Bo Gao et al. Docket No. 125096-8144,US00

Appl. No. : Unassigned Filed : Herewith Page : 2 of 3

I am aware of the duty to disclose to the U.S. Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR §1.56.

I hereby acknowledge that any willful false statement made in the above declaration is punishable under 18 USC §1001 by fine or imprisonment of not more than five (5) years, or both.

ASSIGNMENT

I hereby assign to ZTE Corporation, a corporation of P.R. China, having a place of business at ZTE Plaza, Keji Road South, Hi-Tech Industrial Park, Nanshan, Shenzhen, Guangdong 518057, P.R. China, and its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title and interest throughout the world in any and all inventions and improvements which are described in an application for United States Patent, entitled GROUP-SPECIFIC RESOURCE INDICATIONS FOR UPLINK TRANSMISSIONS, filed on April 30, 2021 _____, and assigned U.S. Application Number ______, and which is a continuation of and claims benefit of priority to International Patent Application No. PCT/CN2018/113834, filed on November 2, 2018. I authorize and request an attorney appointed in said application to hereafter insert above the filing date and application number of said application when known.

This assignment includes the entire right, title and interest in said application(s), all legal equivalents thereof in any country, any and all United States and foreign patents, utility models, and design registrations granted for any of said inventions and improvements, including, but not limited to, all divisions, continuations, reissues, reexamination certificates, any and all certificates issued in any post-grant proceeding, and extensions of said application(s) and patents of the United States, foreign patents, utility models, and design registrations, and the right to claim priority based on the filing date of said application(s) under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes, and the right to seek relief and recover all damages, including, but not limited to, a reasonable royalty, by reason of infringement or any other violation of patent or patent application rights. I authorize the Assignee to apply in all countries in my name or in the name of the Assignee for patents, utility models, design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements.

In addition, I hereby confirm the sale, assignment, and transfer to the Assignee of the entire right, title and interest throughout the world in said inventions and improvements by operation of an employment agreement between me and the Assignee existing at the time said inventions and improvements were made. Should I have any remaining interest, I hereby sell, assign, and transfer to the Assignee any right, title and interest I may have in said inventions and improvements anywhere in the world.

Inventor: Bo Gao et al. Docket No. 125096-8144.US00

Appl. No.: Unassigned
Filed: Herewith
Page: 3 of 3

The foregoing assignments, sale and transfer have been made for good and valuable consideration, the receipt of which is hereby acknowledged.

I hereby represent and covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into that would conflict with the assignment of said inventions and improvements to the Assignee.

I further covenant for myself and my respective heirs, legal representatives and assigns, to assist the Assignee in handling various procedures, tasks and documentation in connection with this assignment, including, but not limited to, providing to the Assignee promptly upon the request of the Assignee all pertinent facts and documents relating to said invention and improvements, and said patents, said legal equivalents or other legal instrument as may be known and accessible to me and testifying as to the same in any interference, litigation, or proceeding relating thereto, and promptly executing and delivering to the Assignee or its legal representative any and all papers, documents, instruments or affidavits in connection with obtaining, maintaining, issuing or enforcing said application(s), said inventions and improvements, and said patents, said equivalents and other legal instrument which may be necessary or desirable to carry out the purposes thereof.

I am competent to execute the above declaration and assignment. I hereby have duly executed the declaration and assignment below with my name.

Full name of	inventor: BOGAO BoGao
Inventor's sig	nature:
Date:	2021-04-21

Perkins Coie LLP P.O. Box 1247 Seattle, Washington 98111-1247

Telephone: (858) 720-5700 Facsimile: (206) 359-7198

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Applicant(s): ZTE Corporation

Inventor(s): Bo Gao et al.

Application No.: Unassigned

Confirmation No.: Unassigned

Filing Date: Herewith

Title: GROUP-SPECIFIC RESOURCE

INDICATIONS FOR UPLINK TRANSMISSIONS

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

DECLARATION AND ASSIGNMENT BY INVENTOR UNDER RULE 37 C.F.R. § 1.63

I, Zhaohua Lu, of Shenzhen, Guangdong, P.R. China, hereby declare that:

I believe I am the sole original inventor or an original joint inventor of a claimed invention in a patent application entitled:

GROUP-SPECIFIC RESOURCE INDICATIONS FOR UPLINK TRANSMISSIONS

which is attached hereto and identified as Attorney Docket No. 125096-8144.US00, and which is a continuation of and claims benefit of priority to International Patent Application No. PCT/CN2018/113834, filed on November 2, 2018.

I believe the following persons are original joint inventors of the above-identified patent application(s):

Bo Gao, of Shenzhen, Guangdong, P.R. China;

Yu Ngok Li, of Shenzhen, Guangdong, P.R. China;

Ke Yao, of Shenzhen, Guangdong, P.R. China;

Chuangxin Jiang, of Shenzhen, Guangdong, P.R. China; and

Hao Wu, of Shenzhen, Guangdong, P.R. China.

The above-identified application was made or authorized to be made by me.

I have reviewed and understand the contents of the above-identified patent application including the claims.

Inventor: Bo Gao et al. Docket No. 125096-8144.US00

Appl. No. : Unassigned
Filed : Herewith
Page : 2 of 3

I am aware of the duty to disclose to the U.S. Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR §1.56.

I hereby acknowledge that any willful false statement made in the above declaration is punishable under 18 USC §1001 by fine or imprisonment of not more than five (5) years, or both.

ASSIGNMENT

I hereby assign to ZTE Corporation, a corporation of P.R. China, having a place of business at ZTE Plaza, Keji Road South, Hi-Tech Industrial Park, Nanshan, Shenzhen, Guangdong 518057, P.R. China, and its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title and interest throughout the world in any and all inventions and improvements which are described in an application for United States Patent, entitled GROUP-SPECIFIC RESOURCE INDICATIONS FOR UPLINK TRANSMISSIONS, filed on April 30, 2021 _____, and assigned U.S. Application Number ______, and which is a continuation of and claims benefit of priority to International Patent Application No. PCT/CN2018/113834, filed on November 2, 2018. I authorize and request an attorney appointed in said application to hereafter insert above the filing date and application number of said application when known.

This assignment includes the entire right, title and interest in said application(s), all legal equivalents thereof in any country, any and all United States and foreign patents, utility models, and design registrations granted for any of said inventions and improvements, including, but not limited to, all divisions, continuations, reissues, reexamination certificates, any and all certificates issued in any post-grant proceeding, and extensions of said application(s) and patents of the United States, foreign patents, utility models, and design registrations, and the right to claim priority based on the filing date of said application(s) under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes, and the right to seek relief and recover all damages, including, but not limited to, a reasonable royalty, by reason of infringement or any other violation of patent or patent application rights. I authorize the Assignee to apply in all countries in my name or in the name of the Assignee for patents, utility models, design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements.

In addition, I hereby confirm the sale, assignment, and transfer to the Assignee of the entire right, title and interest throughout the world in said inventions and improvements by operation of an employment agreement between me and the Assignee existing at the time said inventions and improvements were made. Should I have any remaining interest, I hereby sell, assign, and transfer to the Assignee any right, title and interest I may have in said inventions and improvements anywhere in the world.

Inventor : Bo Gao et al. Docket No. 125096-8144.US00

Appl. No. : Unassigned
Filed : Herewith
Page : 3 of 3

The foregoing assignments, sale and transfer have been made for good and valuable consideration, the receipt of which is hereby acknowledged.

I hereby represent and covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into that would conflict with the assignment of said inventions and improvements to the Assignee.

I further covenant for myself and my respective heirs, legal representatives and assigns, to assist the Assignee in handling various procedures, tasks and documentation in connection with this assignment, including, but not limited to, providing to the Assignee promptly upon the request of the Assignee all pertinent facts and documents relating to said invention and improvements, and said patents, said legal equivalents or other legal instrument as may be known and accessible to me and testifying as to the same in any interference, litigation, or proceeding relating thereto, and promptly executing and delivering to the Assignee or its legal representative any and all papers, documents, instruments or affidavits in connection with obtaining, maintaining, issuing or enforcing said application(s), said inventions and improvements, and said patents, said equivalents and other legal instrument which may be necessary or desirable to carry out the purposes thereof.

I am competent to execute the above declaration and assignment. I hereby have duly executed the declaration and assignment below with my name.

Full name of inventor:	ZHAOHUA LU	Zhoo kua	lu
Inventor's signature:		~C	
Date:	2021.4.25		

Perkins Coie LLP P.O. Box 1247

Seattle, Washington 98111-1247 Telephone: (858) 720-5700 Facsimile: (206) 359-7198

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Applicant(s): ZTE Corporation

Inventor(s): Bo Gao et al.

Application No.: Unassigned Confirmation No.: Unassigned

Filing Date: Herewith

Title: GROUP-SPECIFIC RESOURCE

INDICATIONS FOR UPLINK TRANSMISSIONS

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

DECLARATION AND ASSIGNMENT BY INVENTOR UNDER RULE 37 C.F.R. § 1.63

I, Yu Ngok Li, of Shenzhen, Guangdong, P.R. China, hereby declare that:

I believe I am the sole original inventor or an original joint inventor of a claimed invention in a patent application entitled:

GROUP-SPECIFIC RESOURCE INDICATIONS FOR UPLINK TRANSMISSIONS

which is attached hereto and identified as Attorney Docket No. 125096-8144.US00, and which is a continuation of and claims benefit of priority to International Patent Application No. PCT/CN2018/113834, filed on November 2, 2018.

I believe the following persons are original joint inventors of the above-identified patent application(s):

Bo Gao, of Shenzhen, Guangdong, P.R. China;

Zhaohua Lu, of Shenzhen, Guangdong, P.R. China;

Ke Yao, of Shenzhen, Guangdong, P.R. China;

Chuangxin Jiang, of Shenzhen, Guangdong, P.R. China; and

Hao Wu, of Shenzhen, Guangdong, P.R. China.

The above-identified application was made or authorized to be made by me.

I have reviewed and understand the contents of the above-identified patent application including the claims.

Inventor : Bo Gao et al. Appl. No. : Unassigned Filed : Herewith Page : 2 of 3

I am aware of the duty to disclose to the U.S. Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR §1.56.

I hereby acknowledge that any willful false statement made in the above declaration is punishable under 18 USC §1001 by fine or imprisonment of not more than five (5) years, or both.

ASSIGNMENT

I hereby assign to ZTE Corporation, a corporation of P.R. China, having a place of business at ZTE Plaza, Keji Road South, Hi-Tech Industrial Park, Nanshan, Shenzhen, Guangdong 518057, P.R. China, and its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title and interest throughout the world in any and all inventions and improvements which are described in an application for United States Patent, entitled GROUP-SPECIFIC RESOURCE INDICATIONS FOR UPLINK TRANSMISSIONS, filed on April 30, 2021 _____, and assigned U.S. Application Number _______, and which is a continuation of and claims benefit of priority to International Patent Application No. PCT/CN2018/113834, filed on November 2, 2018. I authorize and request an attorney appointed in said application to hereafter insert above the filing date and application number of said application when known.

This assignment includes the entire right, title and interest in said application(s), all legal equivalents thereof in any country, any and all United States and foreign patents, utility models, and design registrations granted for any of said inventions and improvements, including, but not limited to, all divisions, continuations, reissues, reexamination certificates, any and all certificates issued in any post-grant proceeding, and extensions of said application(s) and patents of the United States, foreign patents, utility models, and design registrations, and the right to claim priority based on the filing date of said application(s) under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes, and the right to seek relief and recover all damages, including, but not limited to, a reasonable royalty, by reason of infringement or any other violation of patent or patent application rights. I authorize the Assignee to apply in all countries in my name or in the name of the Assignee for patents, utility models, design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements.

In addition, I hereby confirm the sale, assignment, and transfer to the Assignee of the entire right, title and interest throughout the world in said inventions and improvements by operation of an employment agreement between me and the Assignee existing at the time said inventions and improvements were made. Should I have any remaining interest, I hereby sell, assign, and transfer to the Assignee any right, title and interest I may have in said inventions and improvements anywhere in the world.

Inventor : Bo Gao et al. Appl. No. : Unassigned Filed : Herewith Page : 3 of 3

The foregoing assignments, sale and transfer have been made for good and valuable consideration, the receipt of which is hereby acknowledged.

I hereby represent and covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into that would conflict with the assignment of said inventions and improvements to the Assignee.

I further covenant for myself and my respective heirs, legal representatives and assigns, to assist the Assignee in handling various procedures, tasks and documentation in connection with this assignment, including, but not limited to, providing to the Assignee promptly upon the request of the Assignee all pertinent facts and documents relating to said invention and improvements, and said patents, said legal equivalents or other legal instrument as may be known and accessible to me and testifying as to the same in any interference, litigation, or proceeding relating thereto, and promptly executing and delivering to the Assignee or its legal representative any and all papers, documents, instruments or affidavits in connection with obtaining, maintaining, issuing or enforcing said application(s), said inventions and improvements, and said patents, said equivalents and other legal instrument which may be necessary or desirable to carry out the purposes thereof.

I am competent to execute the above declaration and assignment. I hereby have duly executed the declaration and assignment below with my name.

Full name of inventor: YU NGOK LI

Inventor's signature: YU NGOK LI

Date: 2021-04-30

Perkins Coie LLP P.O. Box 1247 Seattle, Washington 98111-1247 Telephone: (858) 720-5700

Facsimile: (206) 359-7198

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Applicant(s): ZTE Corporation

Inventor(s): Bo Gao et al.

Application No.: Unassigned

Confirmation No.: Unassigned

Filing Date: Herewith

Title: GROUP-SPECIFIC RESOURCE

INDICATIONS FOR UPLINK TRANSMISSIONS

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

<u>DECLARATION AND ASSIGNMENT BY INVENTOR</u> <u>UNDER RULE 37 C.F.R. § 1.63</u>

I, Ke Yao, of Shenzhen, Guangdong, P.R. China, hereby declare that:

I believe I am the sole original inventor or an original joint inventor of a claimed invention in a patent application entitled:

GROUP-SPECIFIC RESOURCE INDICATIONS FOR UPLINK TRANSMISSIONS

which is attached hereto and identified as Attorney Docket No. 125096-8144.US00, and which is a continuation of and claims benefit of priority to International Patent Application No. PCT/CN2018/113834, filed on November 2, 2018.

I believe the following persons are original joint inventors of the above-identified patent application(s):

Bo Gao, of Shenzhen, Guangdong, P.R. China;

Zhaohua Lu, of Shenzhen, Guangdong, P.R. China;

Yu Ngok Li, of Shenzhen, Guangdong, P.R. China;

Chuangxin Jiang, of Shenzhen, Guangdong, P.R. China; and

Hao Wu, of Shenzhen, Guangdong, P.R. China.

The above-identified application was made or authorized to be made by me.

I have reviewed and understand the contents of the above-identified patent application including the claims.

Inventor : Bo Gao et al. Appl. No. : Unassigned Filed : Herewith Page : 2 of 3

I am aware of the duty to disclose to the U.S. Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR §1.56.

I hereby acknowledge that any willful false statement made in the above declaration is punishable under 18 USC §1001 by fine or imprisonment of not more than five (5) years, or both.

ASSIGNMENT

I hereby assign to ZTE Corporation, a corporation of P.R. China, having a place of business at ZTE Plaza, Keji Road South, Hi-Tech Industrial Park, Nanshan, Shenzhen, Guangdong 518057, P.R. China, and its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title and interest throughout the world in any and all inventions and improvements which are described in an application for United States Patent, entitled GROUP-SPECIFIC RESOURCE INDICATIONS FOR UPLINK TRANSMISSIONS, filed on April 30, 2021 ____, and assigned U.S. Application Number ______, and which is a continuation of and claims benefit of priority to International Patent Application No. PCT/CN2018/113834, filed on November 2, 2018. I authorize and request an attorney appointed in said application to hereafter insert above the filing date and application number of said application when known.

This assignment includes the entire right, title and interest in said application(s), all legal equivalents thereof in any country, any and all United States and foreign patents, utility models, and design registrations granted for any of said inventions and improvements, including, but not limited to, all divisions, continuations, reissues, reexamination certificates, any and all certificates issued in any post-grant proceeding, and extensions of said application(s) and patents of the United States, foreign patents, utility models, and design registrations, and the right to claim priority based on the filing date of said application(s) under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes, and the right to seek relief and recover all damages, including, but not limited to, a reasonable royalty, by reason of infringement or any other violation of patent or patent application rights. I authorize the Assignee to apply in all countries in my name or in the name of the Assignee for patents, utility models, design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements.

In addition, I hereby confirm the sale, assignment, and transfer to the Assignee of the entire right, title and interest throughout the world in said inventions and improvements by operation of an employment agreement between me and the Assignee existing at the time said inventions and improvements were made. Should I have any remaining interest, I hereby sell, assign, and transfer to the Assignee any right, title and interest I may have in said inventions and improvements anywhere in the world.

Inventor : Bo Gao et al. Appl. No. : Unassigned Filed : Herewith Page : 3 of 3

The foregoing assignments, sale and transfer have been made for good and valuable consideration, the receipt of which is hereby acknowledged.

I hereby represent and covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into that would conflict with the assignment of said inventions and improvements to the Assignee.

I further covenant for myself and my respective heirs, legal representatives and assigns, to assist the Assignee in handling various procedures, tasks and documentation in connection with this assignment, including, but not limited to, providing to the Assignee promptly upon the request of the Assignee all pertinent facts and documents relating to said invention and improvements, and said patents, said legal equivalents or other legal instrument as may be known and accessible to me and testifying as to the same in any interference, litigation, or proceeding relating thereto, and promptly executing and delivering to the Assignee or its legal representative any and all papers, documents, instruments or affidavits in connection with obtaining, maintaining, issuing or enforcing said application(s), said inventions and improvements, and said patents, said equivalents and other legal instrument which may be necessary or desirable to carry out the purposes thereof.

I am competent to execute the above declaration and assignment. I hereby have duly executed the declaration and assignment below with my name.

Full name of inventor: KE YAO			
Inventor's signature:	kΕ	YAO	
Date: 2021 - 4 -	22		

Perkins Coie LLP P.O. Box 1247

Seattle, Washington 98111-1247 Telephone: (858) 720-5700 Facsimile: (206) 359-7198

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Applicant(s): ZTE Corporation

Inventor(s): Bo Gao et al.

Application No.: Unassigned Confirmation No.: Unassigned

Filing Date: Herewith

Title: GROUP-SPECIFIC RESOURCE

INDICATIONS FOR UPLINK TRANSMISSIONS

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

DECLARATION AND ASSIGNMENT BY INVENTOR UNDER RULE 37 C.F.R. § 1.63

I, Chuangxin Jiang, of Shenzhen, Guangdong, P.R. China, hereby declare that:

I believe I am the sole original inventor or an original joint inventor of a claimed invention in a patent application entitled:

GROUP-SPECIFIC RESOURCE INDICATIONS FOR UPLINK TRANSMISSIONS

which is attached hereto and identified as Attorney Docket No. 125096-8144.US00, and which is a continuation of and claims benefit of priority to International Patent Application No. PCT/CN2018/113834, filed on November 2, 2018.

I believe the following persons are original joint inventors of the above-identified patent application(s):

Bo Gao, of Shenzhen, Guangdong, P.R. China;

Zhaohua Lu, of Shenzhen, Guangdong, P.R. China;

Yu Ngok Li, of Shenzhen, Guangdong, P.R. China;

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Hao Wu, of Shenzhen, Guangdong, P.R. China.

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Inventor : Bo Gao et al. Appl. No. : Unassigned Filed : Herewith Page : 2 of 3

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Inventor : Bo Gao et al. Appl. No. : Unassigned Filed : Herewith Page : 3 of 3

The foregoing assignments, sale and transfer have been made for good and valuable consideration, the receipt of which is hereby acknowledged.

I hereby represent and covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into that would conflict with the assignment of said inventions and improvements to the Assignee.

I further covenant for myself and my respective heirs, legal representatives and assigns, to assist the Assignee in handling various procedures, tasks and documentation in connection with this assignment, including, but not limited to, providing to the Assignee promptly upon the request of the Assignee all pertinent facts and documents relating to said invention and improvements, and said patents, said legal equivalents or other legal instrument as may be known and accessible to me and testifying as to the same in any interference, litigation, or proceeding relating thereto, and promptly executing and delivering to the Assignee or its legal representative any and all papers, documents, instruments or affidavits in connection with obtaining, maintaining, issuing or enforcing said application(s), said inventions and improvements, and said patents, said equivalents and other legal instrument which may be necessary or desirable to carry out the purposes thereof.

I am competent to execute the above declaration and assignment. I hereby have duly executed the declaration and assignment below with my name.

Full name of invento	r: CHUANGXIN J	IANG	
Inventor's signature:	Chuangxin	Jiang	
Date:	2021/24/25		

Perkins Coie LLP P.O. Box 1247

Seattle, Washington 98111-1247 Telephone: (858) 720-5700 Facsimile: (206) 359-7198

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Applicant(s): ZTE Corporation

Inventor(s): Bo Gao et al.

Application No.: Unassigned Confirmation No.: Unassigned

Filing Date: Herewith

Title: GROUP-SPECIFIC RESOURCE

INDICATIONS FOR UPLINK TRANSMISSIONS

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

DECLARATION AND ASSIGNMENT BY INVENTOR UNDER RULE 37 C.F.R. § 1.63

I, Hao Wu, of Shenzhen, Guangdong, P.R. China, hereby declare that:

I believe I am the sole original inventor or an original joint inventor of a claimed invention in a patent application entitled:

GROUP-SPECIFIC RESOURCE INDICATIONS FOR UPLINK TRANSMISSIONS

which is attached hereto and identified as Attorney Docket No. 125096-8144.US00, and which is a continuation of and claims benefit of priority to International Patent Application No. PCT/CN2018/113834, filed on November 2, 2018.

I believe the following persons are original joint inventors of the above-identified patent application(s):

Bo Gao, of Shenzhen, Guangdong, P.R. China;

Zhaohua Lu, of Shenzhen, Guangdong, P.R. China;

Yu Ngok Li, of Shenzhen, Guangdong, P.R. China;

Ke Yao, of Shenzhen, Guangdong, P.R. China; and

Chuangxin Jiang, of Shenzhen, Guangdong, P.R. China.

The above-identified application was made or authorized to be made by me.

I have reviewed and understand the contents of the above-identified patent application including the claims.

Inventor : Bo Gao et al. Appl. No. : Unassigned Filed : Herewith Page : 2 of 3

I am aware of the duty to disclose to the U.S. Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR §1.56.

I hereby acknowledge that any willful false statement made in the above declaration is punishable under 18 USC §1001 by fine or imprisonment of not more than five (5) years, or both.

ASSIGNMENT

I hereby assign to ZTE Corporation, a corporation of P.R. China, having a place of business at ZTE Plaza, Keji Road South, Hi-Tech Industrial Park, Nanshan, Shenzhen, Guangdong 518057, P.R. China, and its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title and interest throughout the world in any and all inventions and improvements which are described in an application for United States Patent, entitled GROUP-SPECIFIC RESOURCE INDICATIONS FOR UPLINK TRANSMISSIONS, filed on April 30, 2021 _____, and assigned U.S. Application Number _______, and which is a continuation of and claims benefit of priority to International Patent Application No. PCT/CN2018/113834, filed on November 2, 2018. I authorize and request an attorney appointed in said application to hereafter insert above the filing date and application number of said application when known.

This assignment includes the entire right, title and interest in said application(s), all legal equivalents thereof in any country, any and all United States and foreign patents, utility models, and design registrations granted for any of said inventions and improvements, including, but not limited to, all divisions, continuations, reissues, reexamination certificates, any and all certificates issued in any post-grant proceeding, and extensions of said application(s) and patents of the United States, foreign patents, utility models, and design registrations, and the right to claim priority based on the filing date of said application(s) under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes, and the right to seek relief and recover all damages, including, but not limited to, a reasonable royalty, by reason of infringement or any other violation of patent or patent application rights. I authorize the Assignee to apply in all countries in my name or in the name of the Assignee for patents, utility models, design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements.

In addition, I hereby confirm the sale, assignment, and transfer to the Assignee of the entire right, title and interest throughout the world in said inventions and improvements by operation of an employment agreement between me and the Assignee existing at the time said inventions and improvements were made. Should I have any remaining interest, I hereby sell, assign, and transfer to the Assignee any right, title and interest I may have in said inventions and improvements anywhere in the world.

Inventor : Bo Gao et al. Appl. No. : Unassigned Filed : Herewith Page : 3 of 3

The foregoing assignments, sale and transfer have been made for good and valuable consideration, the receipt of which is hereby acknowledged.

I hereby represent and covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into that would conflict with the assignment of said inventions and improvements to the Assignee.

I further covenant for myself and my respective heirs, legal representatives and assigns, to assist the Assignee in handling various procedures, tasks and documentation in connection with this assignment, including, but not limited to, providing to the Assignee promptly upon the request of the Assignee all pertinent facts and documents relating to said invention and improvements, and said patents, said legal equivalents or other legal instrument as may be known and accessible to me and testifying as to the same in any interference, litigation, or proceeding relating thereto, and promptly executing and delivering to the Assignee or its legal representative any and all papers, documents, instruments or affidavits in connection with obtaining, maintaining, issuing or enforcing said application(s), said inventions and improvements, and said patents, said equivalents and other legal instrument which may be necessary or desirable to carry out the purposes thereof.

I am competent to execute the above declaration and assignment. I hereby have duly executed the declaration and assignment below with my name.

Full name of inventor:	HAO WU		
Inventor's signature:	Haon	/u	
Date: 2021-04-20			

Perkins Coie LLP P.O. Box 1247 Seattle, Washington 98111-1247 Telephone: (858) 720-5700

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RECORDED: 04/30/2021