### 506347027 11/10/2020

### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6393781

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
XING LIU	08/26/2019
HAIGANG HE	08/26/2019
PENG HAO	08/26/2019
FENG BI	08/26/2019

### **RECEIVING PARTY DATA**

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

### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	16949669

### **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.

**Email:** patentprocurement@perkinscoie.com, achou@perkinscoie.com

Correspondent Name: VINAY SATHE Address Line 1: PO BOX 1247

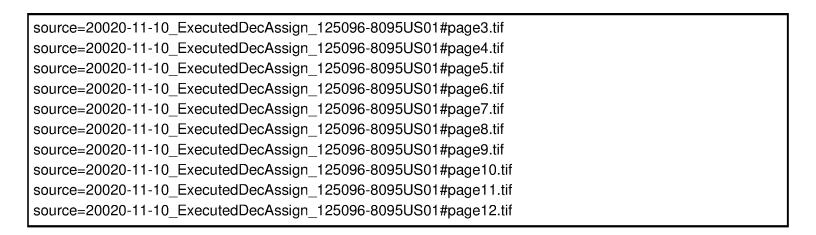
Address Line 4: SEATTLE, WASHINGTON 98111-1247

ATTORNEY DOCKET NUMBER:	125096-8095.US01
NAME OF SUBMITTER:	ANITA CHOU
SIGNATURE:	/Anita Chou/
DATE SIGNED:	11/10/2020

**Total Attachments: 12** 

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PATENT 506347027 REEL: 054324 FRAME: 0907



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Applicant(s): ZTE Corporation

Inventor(s): Xing Liu et al.

Application No.: Not yet assigned

Filing Date: Herewith

Title: COMMUNICATION OF COMMON

CONTROL BLOCKS

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, Xing Liu, 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:

### COMMUNICATION OF COMMON CONTROL BLOCKS

which is attached hereto and identified as Attorney Docket No. 125096-8095.US00, and which is a continuation of and claims priority to International Patent Application No. PCT/CN2017/096872, filed on August 10, 2017.

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

Haigang He, of Shenzhen, Guangdong, P.R. China; Peng Hao, of Shenzhen, Guangdong, P.R. China; and Feng Bi, 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.

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.

144881176.1

Inventor: Xing Liu et al.
Appl. No.: Not yet assigned
Filed: Herewith

Page : 2 of 3

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 District, 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 COMMUNICATION OF COMMON CONTROL BLOCKS, filed on January 23, 2020, and assigned U.S. Application Number 16/751,181, and which is a continuation of and claims priority to International Patent Application No. PCT/CN2017/096872, filed on August 10, 2017. 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.

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

[44881176.1

Inventor: Xing Liu et al.

Appl. No.: Not yet assigned
Filed: Herewith

Page : 3 of 3

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.

	Inventor's signature: XING LLU
	Date: $2019 - 8 - 26$
on bel	The Assignee hereby acknowledges the assignment. The undersigned is authorized to actual of the Assignee.
	Assignee: ZTE Corporation
	Authorized officer's legal name: 174 YA
	Authorized officer's title:
	Authorized officer's signature: /hu /-i
	Date: 22/9.8.30

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

Full name of inventor: XING LIU

Facsimile: (206) 359-7198

144881176.1

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Applicant(s): ZTE Corporation

Inventor(s): Xing Liu et al.

Application No.: Not yet assigned

Filing Date: Herewith

Title: COMMUNICATION OF COMMON

CONTROL BLOCKS

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, Haigang He, 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:

### COMMUNICATION OF COMMON CONTROL BLOCKS

which is attached hereto and identified as Attorney Docket No. 125096-8095.US00, and which is a continuation of and claims priority to International Patent Application No. PCT/CN2017/096872, filed on August 10, 2017.

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

Xing Liu, of Shenzhen, Guangdong, P.R. China; Peng Hao, of Shenzhen, Guangdong, P.R. China; and Feng Bi, 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.

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.

145022042.1

Inventor: Xing Lin et al.
Appl. No.: Not yet assigned
Filed: Herewith

Page : 2 of 3

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 District, 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 COMMUNICATION OF COMMON CONTROL BLOCKS, filed on January 23, 2020, and assigned U.S. Application Number 16/751,181, and which is a continuation of and claims priority to International Patent Application No. PCT/CN2017/096872, filed on August 10, 2017. 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.

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

145022042.1

Inventor : Xing Liu et al.
Appl. No. : Not yet assigned
Filed : Herewith

Page : 3 of 3

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.

HAIGANG HE

Full name of inventor: HAIGANG HE

Inventor's signature:

	Date: $2019 - 8 - 26$
on bel	The Assignee hereby acknowledges the assignment. The undersigned is authorized to act half of the Assignee.
	Assignee: ZTE Corporation
	Authorized officer's legal name:   Hu Yi
	Authorized officer's title:
	Authorized officer's signature: /du / 1

Perkins Coie LLP P.O. Box 1247

Seattle, Washington 98111-1247 Telephone: (858) 720-5700

Facsimile: (206) 359-7198

145022042.1

Docket No. 125096-8095.US00 (PATENT)

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Applicant(s): ZTE Corporation

Inventor(s): Xing Liu et al.

Application No.: Not yet assigned

Filing Date: Herewith

Title: COMMUNICATION OF COMMON

CONTROL BLOCKS

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, Peng Hao, 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:

# COMMUNICATION OF COMMON CONTROL BLOCKS

which is attached hereto and identified as Attorney Docket No. 125096-8095.US00, and which is a continuation of and claims priority to International Patent Application No. PCT/CN2017/096872, filed on August 10, 2017.

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

Xing Liu, of Shenzhen, Guangdong, P.R. China;

Haigang He, of Shenzhen, Guangdong, P.R. China; and

Feng Bi, 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.

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.

145022046.1

Inventor : Xing Liu et al. Appl. No. : Not yet assigned

Filed : Herewith Page : 2 of 3

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 District, 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 COMMUNICATION OF COMMON CONTROL BLOCKS, filed on January 23, 2020, and assigned U.S. Application Number 16/751,181, and which is a continuation of and claims priority to International Patent Application No. PCT/CN2017/096872, filed on August 10, 2017. 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.

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

145022046.1

Inventor : Xing Liu et al. Appl. No.: Not yet assigned

Filed : Herewith : 3 of 3 Page

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.

	Inventor's signature: PENG HAD
	Date: 2019 - 8 - 2b
	The Assignee hereby acknowledges the assignment. The undersigned is authorized to act alf of the Assignee.
	Assignee: ZTE Corporation
	Authorized officer's legal name:   Hu Yú
	Authorized officer's title: C2p3
	Authorized officer's signature: /du / Y
٠.	Date: 22/9 8 . 30
	Coie LLP

P

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

Full name of inventor: PENG HAO

145022046.1

Docket No. 125096-8095.US00

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Applicant(s): ZTE Corporation

Inventor(s): Xing Liu et al.

Application No.: Not yet assigned

Filing Date: Herewith

Title: COMMUNICATION OF COMMON

CONTROL BLOCKS

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

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

I, Feng Bi, 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:

## COMMUNICATION OF COMMON CONTROL BLOCKS

which is attached hereto and identified as Attorney Docket No. 125096-8095.US00, and which is a continuation of and claims priority to International Patent Application No. PCT/CN2017/096872, filed on August 10, 2017.

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

Xing Liu, of Shenzhen, Guangdong, P.R. China:

Haigang He, of Shenzhen, Guangdong, P.R. China; and

Peng Hao, 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.

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.

145022057.1

Inventor : Xing Liu et al.

Appl. No. : Not yet assigned
Filed : Herewith

Page : 2 of 3

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### 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 District, 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 COMMUNICATION OF COMMON CONTROL BLOCKS, filed on January 23, 2020, and assigned U.S. Application Number 16/751,181, and which is a continuation of and claims priority to International Patent Application No. PCT/CN2017/096872, filed on August 10, 2017. 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.

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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.

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

145022057.1

Inventor : Xing Liu et al. Appl. No.: Not yet assigned Filed : Herewith

: 3 of 3 Page

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: FENG	Bi
Inventor's signature: FENG	ВІ
Date: 2019 - 8 -	

The Assignee hereby acknowledges the assignment. The undersigned is authorized to act on behalf of the Assignee.

Assignee: ZTE Corporation	
Authorized officer's legal name:	Itu Yi
Authorized officer's title:	UP 0
Authorized officer's signature:	14, Ei
Date: 2019. 8.30	
Date.	

Perkins Coie LLP P.O. Box 1247

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

**PATENT** REEL: 054324 FRAME: 0920

**RECORDED: 11/10/2020**