PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT		
NATURE OF CONVEYANCE:	ASSIGNMENT		

CONVEYING PARTY DATA

Name	Execution Date
JIE SHI	03/26/2020
XINGWEI ZHANG	04/24/2020
CHAO LI	03/26/2020
SHULAN FENG	03/26/2020

RECEIVING PARTY DATA

Name:	HUAWEI TECHNOLOGIES CO., LTD.
Street Address:	HUAWEI ADMINISTRATION BUILDING
Internal Address:	BANTIAN, LONGGANG DISTRICT
City:	SHENZHEN, GUANGDONG
State/Country:	CHINA
Postal Code:	518129

PROPERTY NUMBERS Total: 1

Property Type	Number				
Application Number:	16787782				

CORRESPONDENCE DATA

Fax Number: (877)769-7945

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: apsi@fr.com

FISH & RICHARDSON P.C. **Correspondent Name:**

Address Line 1: P.O. BOX 1022

Address Line 4: MINNEAPOLIS, MINNESOTA 55440-1022

ATTORNEY DOCKET NUMBER:	43968-1110001
NAME OF SUBMITTER:	SUSAN C. JOHNSON
SIGNATURE:	/Susan C. Johnson/
DATE SIGNED:	01/27/2021

Total Attachments: 4

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> PATENT REEL: 055045 FRAME: 0474

ASSIGNMENT

WHEREAS, WE,

Jie Shi Xingwei Zhang

Huawei Administration Building Emdalavägen 6, 22369 Lund,

Bantian, Longgang District Sweden; and

Shenzhen, 518129, Guangdong

P.R.CHINA; and
Chao Li Shulan Feng

Huawei Administration Building
Bantian, Longgang District
Shenzhen, 518129, Guangdong
Huawei Administration Building
Bantian, Longgang District
Shenzhen, 518129, Guangdong

P.R.CHINA; and P.R.CHINA.

have invented and own a certain invention entitled:

HYBRID AUTOMATIC REPEAT REQUEST HARQ FEEDBACK METHOD AND APPARATUS

for which invention we have executed an application (provisional or non-provisional) for a U.S. patent, which was filed on 2020-02-11, under U.S. Application No. 16787782 and

WHEREAS, HUAWEI TECHNOLOGIES CO.,LTD., Huawei Administration Building Bantian, Longgang District Shenzhen, 518129, Guangdong P.R.CHINA;, hereinafter referred to as Assignee, is desirous of acquiring the entire domestic and foreign right, title, and interest in and under the invention described in the patent application.

Now, THEREFORE, for good and valuable considerations, the receipt and sufficiency of which are hereby acknowledged, we assign and transfer to the Assignee and the Assignee's legal representatives, successors and assigns the full and exclusive rights in and to the invention in the U.S. 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, divisionals, 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 we do hereby authorize and request the Commissioner of Patents to issue U.S. patents to the above-mentioned Assignee agreeably with the terms of this assignment document.

WE HEREBY AUTHORIZE the Assignee to insert in this assignment document the filing date and application number of the application if the date and number are unavailable at the time this document is executed.

WE DO HEREBY COVENANT and agree with the Assignee that we will not execute any writing or do any act whatsoever conflicting with the terms of this assignment document set forth herein, and that we will at any time upon request, without further or additional consideration, but at the expense of the Assignee, execute such additional assignments and

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other writings and do such additional acts as the Assignee may deem necessary or desirable to perfect the Assignee's enjoyment of this assignment, and render all necessary assistance in making application for and obtaining original, continuation, continuation-in-part, divisional, reissued, reexamined, and National phase patents of the U.S. or of any and all foreign countries on the invention, and in enforcing any rights or chooses in action accruing as a result of such applications or patents, and by executing statements and other affidavits, it being understood that the foregoing covenant and agreement shall bind, and inure to the benefit of, the assigns and legal representatives of all parties hereto.

IN WITNESS WHEREOF, We have hereunder set our hands on the dates shown below.

Date Mgy, 26, 20)0	Jie shi	
	Jie Shi	
Date	Xingwei Zhang	
Date Mar. 26, 2020	Chao Li	
Date Mar. 26, 1020	Shulon LWG. Shulon Feng	~~~~

Attorney Docket No. Client Reference No. 85504761US04

ASSIGNMENT

WHEREAS, WE,

Jie Shi Xingwei Zhang

Huawei Administration Building Emdalavägen 6, 22369 Lund,

Bantian, Longgang District Sweden; and

Shenzhen, 518129, Guangdong

P.R.CHINA; and

Chao Li Shulan Feng

Huawei Administration Building
Bantian, Longgang District
Shenzhen, 518129, Guangdong
Huawei Administration Building
Bantian, Longgang District
Shenzhen, 518129, Guangdong

P.R.CHINA; and P.R.CHINA.

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for which invention we have executed an application (provisional or non-provisional) for a U.S. patent, which was filed on 2020-02-11, under U.S. Application No. 16787782 and

WHEREAS, HUAWEI TECHNOLOGIES CO.,LTD., Huawei Administration Building Bantian, Longgang District Shenzhen, 518129, Guangdong P.R.CHINA;, hereinafter referred to as Assignee, is desirous of acquiring the entire domestic and foreign right, title, and interest in and under the invention described in the patent application.

Now, Therefore, for good and valuable considerations, the receipt and sufficiency of which are hereby acknowledged, we assign and transfer to the Assignee and the Assignee's legal representatives, successors and assigns the full and exclusive rights in and to the invention in the U.S. 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, divisionals, 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 we do hereby authorize and request the Commissioner of Patents to issue U.S. patents to the above-mentioned Assignee agreeably with the terms of this assignment document.

WE HEREBY AUTHORIZE the Assignee to insert in this assignment document the filing date and application number of the application if the date and number are unavailable at the time this document is executed.

WE DO HEREBY COVENANT and agree with the Assignee that we will not execute any writing or do any act whatsoever conflicting with the terms of this assignment document set forth herein, and that we will at any time upon request, without further or additional consideration, but at the expense of the Assignee, execute such additional assignments and

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other writings and do such additional acts as the Assignee may deem necessary or desirable to perfect the Assignee's enjoyment of this assignment, and render all necessary assistance in making application for and obtaining original, continuation, continuation-in-part, divisional, reissued, reexamined, and National phase patents of the U.S. or of any and all foreign countries on the invention, and in enforcing any rights or chooses in action accruing as a result of such applications or patents, and by executing statements and other affidavits, it being understood that the foregoing covenant and agreement shall bind, and inure to the benefit of, the assigns and legal representatives of all parties hereto.

IN WITNESS WHEREOF, We have hereunder set our hands on the dates shown below.

Date	Jie Shi
Date April 24, 2020	Xingwei Zhang Xingwei Zhang
Date	Chao Li
Date	Shulan Feng