506789473 07/28/2021

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
VICTOR ALEXEEVICH STEPIN	07/26/2021
ROMAN IGOREVICH CHERNYAK	07/26/2021
RUSLAN FARITOVICH MULLAKHMETOV	06/15/2020

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:	16809179

CORRESPONDENCE DATA

Fax Number: (312)616-5700

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ATTORNEY DOCKET NUMBER:	HW748205
NAME OF SUBMITTER:	KAJAL AMIN
SIGNATURE:	/Kajal Amin/
DATE SIGNED:	07/28/2021

Total Attachments: 4

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PATENT 506789473 REEL: 057007 FRAME: 0140

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> PATENT REEL: 057007 FRAME: 0141

Attorney Docket No. <u>HW748205</u> Client Reference No. 85469817US03

ASSIGNMENT

WHEREAS, WE,

Victor Alexeevich Stepin Huawei Administration Building Bantian, Longgang District Shenzhen, 518129, Guangdong P.R.CHINA; and

Ruslan Faritovich Mullakhmetov Huawei Administration Building Bantian, Longgang District Shenzhen, 518129, Guangdong P.R.CHINA. Roman Igorevich Chernyak Huawei Administration Building Bantian, Longgang District Shenzhen, 518129, Guangdong P.R.CHINA; and

have invented and own a certain invention entitled:

FAST BLOCK MATCHING METHOD FOR COLLABORATIVE FILTERING IN LOSSY VIDEO CODECS

for which invention we have executed an application (provisional or non-provisional) for a U.S. patent, which was filed on 2020-03-04, under U.S. Application No. 16809179 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 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

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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	26.07.2011	Champan
		Victor Alexeevich Stepin
Date_	26.04.2021	23
		Roman Igorevich Chernyak
Date		
		Ruslan Faritovich Mullakhmetov

Attorney Docket No. HW748205 Client Reference No. 85469817US03

ASSIGNMENT

WHEREAS, WE,

Victor Alexeevich Stepin Huawei Administration Building Bantian, Longgang District Shenzhen, 518129, Guangdong P.R.CHINA; and

Ruslan Faritovich Mullakhmetov Huawei Administration Building Bantian, Longgang District Shenzhen, 518129, Guangdong P.R.CHINA. Roman Igorevich Chernyak Huawei Administration Building Bantian, Longgang District Shenzhen, 518129, Guangdong P.R.CHINA; and

have invented and own a certain invention entitled:

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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 2020-03-04, under U.S. Application No. 16809179 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.

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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 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	Victor Alexeevich Stepin
Date	
7	Roman Igorevich Chernyak
Date 15 Jun 2020	
	Ruslan Faritovich Mullakhmetov