506854287 09/03/2021

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:		NEW ASSIGNMENT	NEW ASSIGNMENT		
NATURE OF CONVEY	ANCE:	ASSIGNMENT	ASSIGNMENT		
CONVEYING PARTY	DATA				
		Name	Execution Date		
MING LI			08/17/2021		
PING WU			07/09/2021		
RECEIVING PARTY D	ΑΤΑ				
Name:	ZTE CO	RPORATION			
Street Address:	ZTE PLA	AZA, KEJI ROAD SOUTH			
Internal Address:	HI-TECH	HI-TECH INDUSTRIAL PARK, NANSHAN			
City:	SHENZH	SHENZHEN, GUANGDONG			
State/Country:	CHINA	CHINA			
Postal Code:	518057				
Property TypeApplication Number:1746					
Application Number:	1	7466788			
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Applicant(s): ZTE Corporation

Inventor(s): Ming LI et al.

Application No.: Unassigned

Confirmation No.: Unassigned

Filing Date: Filed Herewith

Title: CROSS-COMPONENT QUANTIZATION IN VIDEO CODING

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

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

This declaration and assignment is made by

Ming LI and Ping WU.

I believe I am the original inventor or an original joint inventor of a claimed invention in a patent application attached hereto and:

identified as Attorney Docket No. 125096-8211.US00, and which claims the benefit of priority of PCT International Application No. PCT/CN2019/076977, filed on March 5, 2019.

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.

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.

Inventor : Ming LI et al. Appl. No. : Unassigned Filed : Filed Herewith Page : 2 of 3

ASSIGNMENT

I hereby assign to <u>ZTE Corporation</u>, 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 *CROSS-COMPONENT QUANTIZATION IN VIDEO CODING*, filed on

<u>September 3, 2021</u> and assigned U.S. Application Number <u>17/466,788</u> and which claims the benefit of priority of PCT International Application No. PCT/CN2019/076977, filed on March 5, 2019. 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.

Inventor : Ming LI et al. Appl. No. : Unassigned Filed : 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.

Full name of invento	or: MING LI			
Inventor's signature:	MING	LI	 0	
	2021-		7	
			1	

Full name of inventor: PING WU

Date:_____

Perkins Coie LLP P.O. Box 1247 Seattle, Washington 98111-1247 Telephone: (858) 720-5700 Facsimile: (206) 359-7198

153025408.1

Docket No. 125096-\$211.US00 (PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Applicant(s): ZTE Corporation

Inventor(s): Ming LI et al.

Application No.: Unassigned

Confirmation No.: Unassigned

Filing Date: Filed Herewith

Title: CROSS-COMPONENT QUANTIZATION IN VIDEO CODING

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

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Ming LI and Ping WU.

I believe I am the original inventor or an original joint inventor of a claimed invention in a patent application attached hereto and:

identified as Attorney Docket No. 125096-8211.US00, and which claims the benefit of priority of PCT International Application No. PCT/CN2019/076977, filed on March 5, 2019.

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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.

Recipion of July 2004

PATENT REEL: 057385 FRAME: 0751

153025408.1

Inventor : Ming LI et al. Appl. No. : Unassigned Filed : Filed Herewith Page : 2 of 3

ASSIGNMENT

I hereby assign to <u>ZTE Corporation</u>, 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 *CROSS-COMPONENT QUANTIZATION IN VIDEO CODING*, filed on

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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.

P. We g July 2022 .

153025408.1

PATENT REEL: 057385 FRAME: 0752

Inventor : Ming LI et al. Appl. No. : Unassigned Filed : 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.

Full name of inventor: M	ING LI	
Inventor's signature:	······	
Date:		

Full name of inventor:	PING W	Ú	
Inventor's signature:	Pars	<u>N</u> k	
Date:	1 July	2021	

Perkins Coie LLP P.O. Box 1247 Seattle, Washington 98111-1247 Telephone: (858) 720-5700 Facsimile: (206) 359-7198

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RECORDED: 09/03/2021