505045098 08/10/2018

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5091850

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
XIANG FU	08/01/2018
LINFENG GUO	08/01/2018
HAIYAN HE	08/01/2018
WEI LI	07/31/2018
XU GANG ZHAO	08/01/2018
HAO PAN	08/07/2018
XIAOHUA YANG	08/08/2018
KRISHNAKANTH RAPAKA	08/07/2018
MUNEHIRA NAKAZATO	07/31/2018
HAITAO GUO	08/02/2018

#### RECEIVING PARTY DATA

Name:	APPLE INC.
Street Address:	ONE APPLE PARK WAY.
City:	CUPERTINO
State/Country:	CALIFORNIA
Postal Code:	95014-2084

## **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	16100310

### CORRESPONDENCE DATA

Fax Number: (202)861-1783

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.

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BAKER & HOSTETLER LLP / APPLE INC. Correspondent Name: Address Line 1: WASHINGTON SQUARE, SUITE 1100

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ATTORNEY DOCKET NUMBER: 082438.310980

REEL: 046610 FRAME: 0802 505045098

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NAME OF SUBMITTER:	ROBERT L. HAILS
SIGNATURE:	/Robert L. Hails/
DATE SIGNED:	08/10/2018
Total Attachments: 8	
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PATENT REEL: 046610 FRAME: 0803

#### **ASSIGNMENT**

In consideration of good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned hereby sell, assign, and transfer to **Apple Inc.**, a corporation of the state of California, having a principal place of business at One Apple Park Way, Cupertino, California, 95014-2084 ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all foreign countries, in and to any and all inventions and discoveries that are disclosed in the United States Patent Application entitled:

# DEEP QUALITY ENHANCEMENT OF ADAPTIVE DOWNSCALED CODING FOR IMAGE COMPRESSION

the specification of which is attached hereto unless the following is entered:

Filed on	as United States Application Number or PCT International Application Number	and was amended on (if applicable)
August 10, 2018	16/100,310	

and in and to said United States Patent Application and all provisional, divisional, continuing, substitute, renewal, reissue, and other patent applications that have been or shall be filed in the United States or any foreign country on any of said inventions and discoveries; and in and to all original and reissued patents that have been or shall be issued in the United States or any foreign country on said inventions and discoveries; and in and to all rights of priority resulting from the filing of said United States Patent Application;

agree that said Assignee may apply for and receive a patent or patents for said inventions and discoveries in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all provisional, divisional, continuing, substitute, renewal, reissue, and other patent applications on any and all said inventions and discoveries; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said inventions and discoveries and the history thereof; and generally assist said Assignee, its successors, assigns, or representatives in securing and maintaining proper patent protection for said inventions and discoveries and for vesting title to said inventions and discoveries, and all applications for patents and all patents on said inventions and discoveries, in said Assignee, its successors, assigns, and legal representatives; and

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

Inventor: Xiang Fu	
Inventor Signature	Date
Ling Fa	08/01/2018
Inventor: Linfeng Guo	
Inventor Signature	Date
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Inventor: Haiyan He	
Inventor Signature	Date

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Inventor Signature

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own name; and that, when assigns, and legal represe undersigned will execute a applications on any and al attorney, and other papers known to the undersigned said Assignee, its success said inventions and discov	may apply for and receive a patent or patents for said a requested, without charge to, but at the expense of, so that ives, to carry out in good faith the intent and purposall provisional, divisional, continuing, substitute, renewall said inventions and discoveries; execute all rightful of secondariate to said Assignee, its successors, assignerelating to said inventions and discoveries and the history, assigns, or representatives in securing and mainteneries and for vesting title to said inventions and discoveries, in said Assignee, its	said Assignee, its successors, ose of this Assignment, the al, reissue, and other patent aths, assignments, powers of gns, and representatives all facts story thereof; and generally assist aining proper patent protection for veries, and all applications for
mortgage, license, or other	gnee, its successors, assigns, and legal represent or agreement affecting the rights and property herein and full right to convey the same as herein expressed in	conveyed has been made to other
Inventor: Xiang Fu		
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Inventor Signature		
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Inventor: Linfeng Guo Inventor Signature	Lafry Las	Date

PATENT REEL: 046610 FRAME: 0805

Date

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Inventor: Haiyan He

Inventor Signature

8/1/2018

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Inventor: Wei Li	
Inventor Signature	Date 7/31/18
Inventor: Xu Gang Zhao	412
Inventor Signature	Date
Inventor: <b>Hao Pan</b>	<b>4</b>
Inventor Signature	Date
Inventor: <b>Xiaohua Yang</b>	**************************************
Inventor Signature	Date
Inventor: <b>Krishnakanth Rapaka</b>	
Inventor Signature	Date
Inventor: <b>Munehiro Nakazato</b>	
Inventor Signature	Date
Inventor: <b>Haitao Guo</b>	<u>\$</u>
Inventor Signature	Date
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PATENT REEL: 046610 FRAME: 0807

Inventor: Wei Li	
Inventor Signature	Date
Inventor: Xu Gang Zhao	······································
Inventor Signature	Date
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Inventor: Xiaohua Yang	
Inventor Signature	Date
Inventor: Krishnakanth Rapaka	
Inventor Signature	Date
Inventor: Munehiro Nakazato	
Inventor Signature	Date
Inventor: <b>Haitao Guo</b>	
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Inventor: Wei Li	
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Inventor: Krishnakanth Rapaka	
Inventor Signature	Date
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Inventor; Munehiro Nakazato	· · · · · · · · · · · · · · · · · · ·
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Inventor: Haitao Guo	
Inventor Signature	Date

Inventor: Wei Li	
Inventor Signature	Date
Inventor. Xu Gang Zhao	
Inventor Signature	Date
Inventor: Hao Pan	``
Inventor Signature	Date
Inventor: Xiaohua Yang	
Inventor Signature	Date
Inventor: <b>Krishnakanth Rapaka</b>	
Inventor Signature	Date
Inventor: <b>Munehiro Nakazato</b>	
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Inventor: Haitao Guo	
Inventor Signature	Date

**RECORDED: 08/10/2018** 

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Inventor Signature	Date
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Inventor, <b>Xiaohua Yang</b>	
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inventor: <b>Krishnakanth Rapaka</b>	
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Inventor: Munehiro Nakazato	
inventor Signature	Date
Inventor: <b>Haitao Guo</b>	
Inventor Signature	Date

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