PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

SUBMISSION TYPE	E:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:		ASSIGNMENT	
CONVEYING PART	Y DATA		
		Name	Execution Date
Min-Kyu PARK			06/28/2013
Joon-Ki PAIK			06/28/2013
Won-Seok KANG		06/28/2013	
Han-Sae SONG		06/28/2013	
Young-Sam YU		06/28/2013	
Jae-Hwan JEON		06/28/2013	
Young-Kwon YOON	<u></u>	06/28/2013	
Yong-Gu LEE			06/28/2013
Name: Street Address [.]	Samsung Electronics Co., Ltd.		
Nomo		vatranica Co. 1 td	
Street Address:	129, Samsung-ro, Yeongtong-gu		
City:	Suwon-si, Gyeonggi-do		
State/Country:	KOREA, REPUBLIC OF		
Name:	Chung-Ang University Industry-Academy Cooperation Foundation		
Street Address:	12, Heukseok-ro 10da-gil, Dongjak-gu		
City:			
State/Country:	KOREA, REPUBLIC OF		
PROPERTY NUMB	ERS Total: 1		
Property Type		Number	
Application Number:		13930410	
CORRESPONDENC	CE DATA		
Fax Number:			
	ll be sent via US	Mail when the fax attempt is unsucces	ssful.
Phone:	202-293-0804		
Email:	usdocketing@jeffersonip.com PATENT		
502402738			REEL: 030709 FRAME: 0549

Correspondent Name: Address Line 1: Address Line 2: Address Line 4:	Jefferson IP Law 1130 Connecticut Ave., NW Suite 420 Washington, DISTRICT OF COLUMBIA 20036			
ATTORNEY DOCKET NUMBER:		0202-0767		
NAME OF SUBMITTER:		Daniel Schneider		
Signature:		/Daniel SCHNEIDER/		
Date:		06/28/2013		
Total Attachments: 5 source=0202-0767AssignmentAsFiled#page1.tif source=0202-0767AssignmentAsFiled#page2.tif				

source=0202-0767AssignmentAsFiled#page3.tif source=0202-0767AssignmentAsFiled#page4.tif

source=0202-0767AssignmentAsFiled#page5.tif

RECORDATION FORM COVER SHEET PATENTS ONLY				
To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.				
1. Name of conveying party(ies)	2. Name and address of receiving party(ies)			
1) Min-Kyu PARK, 2) Joon-Ki PAIK, 3) Won-Seok KANG,	Name: Samsung Electronics Co., Ltd.			
4) Han-Sae SONG, 5) Young-Sam YU, 6) Jae-Hwan JEON, 7) Young-Kwon YOON, and 8) Yong-Gu LEE	Internal Address:			
Additional name(s) of conveying party(ies) attached? Yes 🖌 3. Nature of conveyance/Execution Date(s):	No Street Address: 129, Samsung-ro, Yeongtong-gu			
Execution Date(s) June 28, 2013	Street Address. <u>129, Samsung-to, Feorigiong-gu</u>			
Assignment Merger	-			
Security Agreement Change of Name	City: Suwon-si, Gyeonggi-do			
Joint Research Agreement	State			
Government Interest Assignment	State:			
Executive Order 9424, Confirmatory License	Country: Republic of Korea Zip:			
	Additional name(s) & address(es) attached? 🗹 Yes 🗌 No			
	Additional name(s) & address(es) attached? Yes No s document is being filed together with a new application.			
A. Patent Application No.(s)	B. Patent No.(s)			
13/930,410				
Additional numbers				
5. Name and address to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved: One			
Name:Jefferson IP Law, LLP				
Internal Address: Daniel Schneider	7. Total fee (37 CFR 1.21(h) & 3.41) \$			
	Authorized to be charged by credit card Authorized to be charged to deposit account			
Street Address: 1130 Connecticut Ave., NW, Suite 420	- None required (government interest not affecting title)			
	8. Payment Information			
City: Washington	a. Credit Card Last 4 Numbers			
State: DC Zip:20036	Expiration Date			
Phone Number: <u>202-293-0804</u>				
Fax Number: <u>202-403-3587</u>	b. Deposit Account Number			
Email Address: usdocketing@jeffersonip.com	Authorized User Name			
9. Signature:				
/Daniel SCHNEIDER/ Reg Signature	. #68,276			
Daniel Schneider	Total number of pages including cover			
	Total number of pages including cover			
Name of Person Signing	eet) should be faxed to (571) 273-0140, or mailed to:			

Page 2 Recordation of assignment

Additional name and address of receiving parties:

Name: Chung-Ang University Industry-Academy Cooperation Foundation

Address: 12, Heukseok-ro 10da-gil, Dongjak-gu, Seoul, Republic of Korea

<u>Assignment</u>

WHEREAS, the following inventors, namely 1) Min-Kyu PARK, 2) Joon-Ki PAIK, 3) Won-Scok KANG, 4) Han-Sae SONG, 5) Young-Sam YU, 6) Jae-Hwan JEON, 7) Young-Kwon YOON, and 8) Yong-Gu LEE, all, citizens of the Republic of Korea (hereinafter called "Assignors"), having made or discovered certain new, useful and non-obvious improvements in an invention having a working title of:

METHOD FOR DIRECTIONAL ADAPTIVE IMAGE INTERPOLATION AND AN ELECTRONIC DEVICE THEREOF,

for which a United States Patent Application is being filed concurrently herewith or, if not being concurrently filed, was filed on <u>June 28, 2013</u>, and assigned Serial No. <u>13/930,410</u>; and,

WHEREAS, Samsung Electronics Co., Ltd., a corporation duly organized under the laws of the Republic of Korea, located and doing business at 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea, 443-742 and Chung-Ang University Industry-Academy Cooperation Foundation, a corporation duly organized under the laws of the Republic of Korea, located and doing business at 12, Heukseok-ro 10da-gil, Dongjak-gu, Seoul, Republic of Korea (hereinafter called "Assignees"), are desirous of acquiring the entire right, title and interest therein;

NOW, THEREFORE, BE IT KNOWN that for and in good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Assignors do hereby sell, assign and transfer unto said Assignee the entire and exclusive worldwide right, title and interest in and to all said inventions and discoveries disclosed in said application, and in and to said application, any and all substitutions, divisions, provisionals, conversions of provisionals and continuations thereof, and in and to all Letters Patent, United States and foreign, that may be granted for said inventions and discoveries, and in and to all extensions, renewals and reissues thereof; and the right to file any foreign application and/or claim priority under the provisional, continuing, substitute or reissue application therefrom. The aforesaid assignment includes the right in and to all income, royalties, damages and payments, now or hereafter due or payable with respect to any Letters Patent which may be granted, and in and to all causes of action (either in law or in equity), and the right to sue, counterclaim, and recover for past, present and future infringement of the rights assigned or to be assigned under this Assignment, as fully and entirely as the same would have been held and enjoyed by Assignors if this sale, assignment and transfer had not been made.

Assignors covenant and agree, without further compensation to said Assignors but at Assignee's expense:

- a. to execute:
 - i. all papers to be used in connection with this application and any divisional, continuing, substitute or reissue application thereof, as the Assignee may deem necessary or expedient, and

DOCKET NO.: 0202-0767 CLIENT DOCKET NO.: SP12114-US_DMC SAMSUNG REF.: GM-201202-607-1-US0

- all papers in connection with any interference, litigation, mediation, arbitration or other proceeding relating to this application or any divisional, continuing, substitute or reissue application thereof, as may be necessary or expedient;
- b. to cooperate with the Assignee in every way possible in obtaining evidence and going forward in any interference, litigation, mediation, arbitration or other proceeding relating to said invention, said application and any divisional, continuing, substitute or reissue application thereof;
- c. to communicate to the Assignee any facts relating to said invention, said application and any divisional, continuing, substitute or reissue application thereof, including evidence for any interference, litigation, mediation, arbitration or other proceeding relating to said invention, whenever requested;
- d. to testify in any interference, litigation, mediation, arbitration or other proceeding relating to said invention, said application and any divisional, continuing, substitute or reissue application thereof whenever requested; and
- e. to perform all other affirmative acts which may be necessary or desirable to secure full and complete protection of the inventions and discoveries or that may be necessary or desirable to vest in Assignee the complete title to the inventions and discoveries and Letters Patent hereby conveyed and to enable Assignee to record title.

Assignors hereby authorize and request the United States Patent and Trademark Office or any other issuing authority to issue any and all Letters Patent that may be granted upon this invention and/or this application or any divisional, continuing, substitute or reissue application thereof to the Assignee, its legal representatives, successors and assigns.

Assignors each hereby represents, covenants and warrants that he or she has the full right to convey the entire right, title and interest by this instrument, free of any encumbrances and that no other agreement has been or will be executed in conflict herewith.

The provisions of this Assignment are binding upon Assignors' heirs, legal representatives and/or administrators and assigns.

Assignors hereby grant to the law firm of Jefferson IP Law, LLP of Washington, DC and its attorneys and agents as associated with Customer No. 68103 the authority and power to insert on this instrument any further identification which may be necessary or desirable for purposes of recordation in the United States Patent and Trademark Office or a Patent Office of any foreign country.

Signature of Inventor:

Min-Kyu PARK

June 28, 2013

Date

2

DOCKET NO.: 0202-0767 CLIENT DOCKET NO.: SP12114-US_DMC SAMSUNG REF.: GM-201202-607-1-US0

Signature of Inventor:

Paik Kang

June 28, 2013 Date

June 28. 2013

June 28, 2013

June 28 _ 2013

June 28, 2013

Signature of Inventor:

Wonseok Won-Seok KANG

Signature of Inventor:

June 22.2013 Date

Date

Date

Date

Date

Signature of Inventor:

Signature of Inventor:

Signature of Inventor:

Young kwon Yoon

Young-Kwon YOON

Jae-Hwan JEON

Han-Sae SONG

Young-Sam

Signature of Inventor:

my Gu Ge

Yong-Gu I

June 28 _ 2013 Date

3

RECORDED: 06/28/2013