504408943 06/12/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT4455642

SUBMISSION TYPE:	NEW ASSIGNMENT	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	ASSIGNMENT	
CONVEYING PARTY DATA			
	Name	Execution Date	
DOO-HYUN KIM		06/08/2017	
JAE-HYUN KIM		06/09/2017	
JOON-HO SONG		06/07/2017	

RECEIVING PARTY DATA

Name:	SAMSUNG ELECTRONICS CO., LTD.
Street Address:	129, SAMSUNG-RO, YEONGTONG-GU
City:	SUWON-SI, GYEONGGI-DO
State/Country:	KOREA, REPUBLIC OF

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15535304

CORRESPONDENCE DATA

Fax Number:

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.

Phone:	202-293-0804
Email:	usdocketing@jeffersonip.com
Correspondent Name:	JEFFERSON IP LAW, LLP
Address Line 1:	1130 CONNECTICUT AVE., NW, SUITE 420
Address Line 4:	WASHINGTON, D.C. 20036

ATTORNEY DOCKET NUMBER:	0502-0317
NAME OF SUBMITTER:	RICHARD B ALMON
SIGNATURE:	/Richard B ALMON/
DATE SIGNED:	06/12/2017

Total Attachments: 7

source=0502-0317AssignmentAsFiled#page1.tif source=0502-0317AssignmentAsFiled#page2.tif source=0502-0317AssignmentAsFiled#page3.tif source=0502-0317AssignmentAsFiled#page4.tif source=0502-0317AssignmentAsFiled#page5.tif source=0502-0317AssignmentAsFiled#page6.tif source=0502-0317AssignmentAsFiled#page7.tif

PATENT REEL: 042678 FRAME: 0762 L

RECORDATION FORM COVER SHEET PATENTS ONLY				
To the Director of the U.S. Patent and Trademark Office: Pleas	se record the attached documents or the new address(es) below.			
1. Name of conveying party(ies)	2. Name and address of receiving party(ies)			
11) Doo-hyun KIM, 2) Jae-hyun KIM, and 3) Joon-ho SONG	Name: Samsung Electronics Co., Ltd.			
	Internal Address:			
Additional name(s) of conveying party(ies) attached? Yes 🖌 No				
3. Nature of conveyance/Execution Date(s):	Street Address: <u>129, Samsung-ro, Yeongtong-gu</u>			
Execution Date(s) <u>06/07/2017</u> , <u>06/08/2017</u> , <u>and 06/09/2017</u>				
Assignment Merger	City: Suwon-si, Gyeonggi-do			
Security Agreement Change of Name				
Joint Research Agreement	State:			
Government Interest Assignment	Country: Republic of Korea Zip:			
Executive Order 9424, Confirmatory License				
Other	Additional name(s) & address(es) attached? Yes 🔽 No			
4. Application or patent number(s):	document is being filed together with a new application.			
A. Patent Application No.(s) B. Patent No.(s)				
15/535,304				
Additional numbers at	ached? Yes Vo			
5. Name and address to whom correspondence	6. Total number of applications and patents			
concerning document should be mailed:	involved: One			
Name: Jefferson IP Law, LLP	7. Total fee (37 CFR 1.21(h) & 3.41) \$			
Internal Address: Richard B Almon	Authorized to be charged by credit card			
	Authorized to be charged to deposit account			
Street Address: 1130 Connecticut Ave., NW, Suite 420	Enclosed			
	None required (government interest not affecting title)			
City: Washington	8. Payment Information			
State: DC Zip:20036	a. Credit Card Last 4 Numbers			
Phone Number: 202-293-0804	Expiration Date			
	b. Deposit Account Number			
Fax Number: 202-403-3587	Authorized User Name			
Email Address: usdocketing@jeffersonip.com				
9. Signature:/Richard B ALMON/ Reg. No	. 62,311 June 12, 2017			
Signature	Date			
Richard B Almon	Total number of pages including cover sheet, attachments, and documents:			
Name of Person Signing	t) should be faxed to (571) 273-0140, or mailed to:			
· -	f the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450			

PATENT REEL: 042678 FRAME: 0763

<u>Assignment</u>

WHEREAS, the following inventors, namely 1) Doo-hyun KIM, 2) Jae-hyun KIM, and 3) Joon-ho SONG (hereinafter called "Assignors"), having made or discovered certain new, useful and non-obvious improvements in an invention having a working title of:

METHOD AND APPARATUS FOR PROCESSING MACRO INSTRUCTION,

for which a United States Patent Application is being filed concurrently herewith or, if not being concurrently filed, was filed on <u>June 12, 2017</u>, and assigned Serial No. <u>15/535,304</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, 16677 (hereinafter called "Assignee"), is 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 all other foreign countries, 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 other foreign country application and/or claim priority under the provisions of any international treaty or convention arising from this application or any divisional, 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.

Assigners covenant and agree, without further compensation to said Assigners 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
 - 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

PATENT REEL: 042678 FRAME: 0764 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 Assignce 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.

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DOCKET NO.: 0502-0317 CLIENT REF.: SH-50516-US-DMC SAMSUNG REF.: MH-201407-014-1-US0

Signature of Inventor:

6/8/2017

Date

Doo-hyun KIM

Signature of Inventor:

Jae-hyun KIM

Date

Signature of Inventor:

6/11/2017.

Joon-ho SONG

Date

<u>Assignment</u>

WHEREAS, the following inventors, namely 1) Doo-hyun KIM, 2) Jae-hyun KIM, and 3) Joon-ho SONG (hereinafter called "Assignors"), having made or discovered certain new, useful and non-obvious improvements in an invention having a working title of:

METHOD AND APPARATUS FOR PROCESSING MACRO INSTRUCTION,

for which a United States Patent Application is being filed concurrently herewith or, if not being concurrently filed, was filed on <u>June 12, 2017</u>, and assigned Serial No. <u>15/535,304</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, 16677 (hereinafter called "Assignee"), is 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 Assignce 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 all other foreign countries, 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 other foreign country application and/or claim priority under the provisions of any international treaty or convention arising from this application or any divisional, 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
 - 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.

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DOCKET NO.: 0502-0317 CLIENT REF.: SH-50516-US-DMC SAMSUNG REF.: MH-201407-014-1-US0

Signature of Inventor:

	Doo-hyun KIM	Date
Signature of Inventor:	mm Hoy	619/2017
	Jac-hyun KIM	Date

Signature of Inventor:

Joon-ho SONG

Date