# 503232856 03/24/2015

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3279474

SUBMISSION TYPE:		NEW ASSIGNMENT	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:		ASSIGNMENT	ASSIGNMENT	
CONVEYING PARTY	DATA			
		Name	Execution Date	
YONG-SEOK KIM			03/24/2015	
RECEIVING PARTY D	ΑΤΑ			
Name:	SAMSU	SAMSUNG ELECTRONICS CO., LTD.		
Street Address:	129, SA	129, SAMSUNG-RO, YEONGTONG-GU		
City:	SUWON	SUWON-SI, GYEONGGI-DO		
State/Country:	KOREA	, REPUBLIC OF		
PROPERTY NUMBER				
Property Type		Number		
Application Number:	1	4666900		
CORRESPONDENCE	DATA			
Fax Number: Correspondence will using a fax number, in Phone: Email: Correspondent Name Address Line 1: Address Line 4:	be sent to f provided; 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	the e-mail address first; if that is unsuce if that is unsuccessful, it will be sent via 202-293-0804 usdocketing@jeffersonip.com UEFFERSON IP LAW, LLP 1130 CONNECTICUT AVE., NW, SUITE 42 WASHINGTON, D.C. 20036	a US Mail.	
Fax Number: Correspondence will using a fax number, in Phone: Email: Correspondent Name Address Line 1: Address Line 4:	be sent to f provided; 2 : 1 : NUMBER:	<b>if that is unsuccessful, it will be sent vi</b> 202-293-0804 usdocketing@jeffersonip.com UEFFERSON IP LAW, LLP 1130 CONNECTICUT AVE., NW, SUITE 42 WASHINGTON, D.C. 20036	a US Mail.	
Fax Number: Correspondence will using a fax number, in Phone: Email: Correspondent Name Address Line 1: Address Line 4: ATTORNEY DOCKET M NAME OF SUBMITTER	be sent to f provided; 2 : 1 : NUMBER:	if that is unsuccessful, it will be sent vie 202-293-0804 usdocketing@jeffersonip.com UEFFERSON IP LAW, LLP 1130 CONNECTICUT AVE., NW, SUITE 42 WASHINGTON, D.C. 20036 0202-1109 MAENG-HO SHIN	a US Mail.	
Fax Number: Correspondence will using a fax number, in Phone: Email: Correspondent Name Address Line 1: Address Line 4: ATTORNEY DOCKET M NAME OF SUBMITTER SIGNATURE:	be sent to f provided; 2 : 1 : NUMBER:	if that is unsuccessful, it will be sent via 202-293-0804 usdocketing@jeffersonip.com UEFFERSON IP LAW, LLP 130 CONNECTICUT AVE., NW, SUITE 42 WASHINGTON, D.C. 20036 0202-1109 0202-1109 MAENG-HO SHIN /Maeng-Ho SHIN/	a US Mail.	
Fax Number: <i>Correspondence will</i> <i>using a fax number, i</i> Phone: Email: Correspondent Name Address Line 1:	be sent to f provided; 2 : 1 : NUMBER:	if that is unsuccessful, it will be sent vie 202-293-0804 usdocketing@jeffersonip.com UEFFERSON IP LAW, LLP 1130 CONNECTICUT AVE., NW, SUITE 42 WASHINGTON, D.C. 20036 0202-1109 MAENG-HO SHIN	a US Mail.	

Form **PTO-1595** (Rev. 07/05) OMB No. 0651-0027 (exp. 6/30/2008)

RECORDATION FORM COVER SHEET PATENTS ONLY					
To the Director of the U.S. Patent and T	Frademark Office: Pleas	e 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) Yong-Seok KIM		Name: Samsung Electronics Co., Ltd.			
		Internal Address:			
Additional name(s) of conveying party(ies) att					
3. Nature of conveyance/Execution	n Date(s):	Street Address: <u>129, Samsung-ro, Yeongtong-gu</u>			
Execution Date(s) <u>03/24/2015</u>					
Assignment Merger		City: Suwon-si, Gyeonggi-do			
	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			
<b>4. Application or patent number(s)</b> A. Patent Application No.(s) 14/666,900		document is being filed together with a new application. B. Patent No.(s)			
5. Name and address to whom cor		ached? Yes V No 6. Total number of applications and patents			
concerning document should be n	-	involved: One			
Name: Jefferson IP Law, LLP		<b>7. Total fee</b> (37 CFR 1.21(h) & 3.41) \$			
Internal Address: Maeng-Ho SHIN		Authorized to be charged by credit card			
internal / taal bool. <u>maong no onint</u>		Authorized to be charged to deposit account			
Street Address: 1130 Connecticut Ave., N	W, Suite 420	None required (government interest not affecting title)			
		8. Payment Information			
City: Washington		•			
State: DC Zip:2	20036	a. Credit Card Last 4 Numbers Expiration Date			
Phone Number: <u>202-293-0804</u>					
Fax Number: 202-403-3587		b. Deposit Account Number			
Email Address: usdocketing@jeffersonip.	com	Authorized User Name			
9 Signature:					
/Ma	aeng-Ho SHIN/ Reg. #53 Signature	3,859 <u>March 24, 2015</u> Date			
Maeng-He	•	Total number of pages including cover			
Name of Per		sheet, attachments, and documents: 3			
		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: 035241 FRAME: 0909

#### DOCKET NO.: 0202-1109 CLIENT REF.: SP15008-US\_DMC SAMSUNG REF.: MJ-201310-024-1-US0

#### Assignment

WHEREAS, the following inventor, namely 1) Yong-Seok KIM, a citizen of the Republic of Korea (hereinafter called "Assignor"), having made or discovered certain new, useful and non-obvious improvements in an invention having a working title of:

### METHOD AND APPARATUS FOR SCHEDULING IN A MULTI-INPUT MULTI-OUTPUT SYSTEM,

for which a United States Patent Application is being filed concurrently herewith or, if not being concurrently filed, was filed on <u>March 24, 2015</u>, and assigned Serial No. <u>14/666,900</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 (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, Assignor does 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 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 Assignor if this sale, assignment and transfer had not been made.

Assignor covenants and agrees, without further compensation to said Assignor 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
  - ii. 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 Assignce 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.

Assignor hereby authorizes and requests 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.

Assignor 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 Assignor's heirs, legal representatives and/or administrators and assigns.

Assignor hereby grants 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:	igner stok for	n March 24, 201	5
	Yong-Seok KIM	Date	
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PATENT REEL: 035241 FRAME: 0911