

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT3123643

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
YOO JIN CHOI	11/20/2014
JUNG HYUN BAE	11/24/2014
JUNGWON LEE	11/20/2014
INYUP KANG	11/21/2014
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	SAMSUNG ELECTRONICS CO., LTD.
<b>Street Address:</b>	129, SAMSUNG-RO, YEONGTON-GU
<b>City:</b>	SUWON-SI, GYEONGGI-DO
<b>State/Country:</b>	KOREA, REPUBLIC OF
<b>Postal Code:</b>	443-742
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	14553917
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	
<i>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.</i>	
<b>Phone:</b>	4085121907
<b>Email:</b>	Efs@ipinvestlaw.com
<b>Correspondent Name:</b>	INTELLECTUAL PROPERTY INVESTMENT LAW GRO
<b>Address Line 1:</b>	3150 DE LA CRUZ BLVD., STE 206
<b>Address Line 4:</b>	SANTA CLARA, CALIFORNIA 95054
<b>ATTORNEY DOCKET NUMBER:</b>	49-032
<b>NAME OF SUBMITTER:</b>	HAN SAEM HONG
<b>SIGNATURE:</b>	/Han Saem Hong/
<b>DATE SIGNED:</b>	11/25/2014
This document serves as an Oath/Declaration (37 CFR 1.63).	
<b>Total Attachments: 4</b>	
source=49-032 - Executed Declaration-Assign#page1.tif	
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DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET  
(37 CFR 1.76) AND ASSIGNMENT

SSI Ref No.: WB-201406-014-1; IPILG Ref No.: 49-032

Title of Invention	COMPUTING SYSTEM WITH CHANNEL ESTIMATION MECHANISM AND METHOD OF OPERATION THEREOF
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As the undersigned inventor, I hereby declare that:

This combined declaration and assignment is directed to: ☐ The attached application, or  
☒ United States application or PCT International application number 14/553,917  
filed on November 25, 2014

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I have reviewed and understand the contents of the application including the claims, for which this combined declaration and assignment is being submitted.

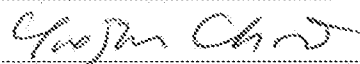
I am aware of the duty to disclose to the Office all information known to me to be material to patentability as defined in 37 CFR 1.56.

WHEREAS, Samsung Electronics Co., Ltd., a Korean corporation, having a place of business at 129, Samsung-ro, Yeongtong-gu Suwon-si, Gyeonggi-do, Korea (hereinafter referred to as "ASSIGNEE"), desires to acquire the entire right, title and interest in said invention and to any patent that may be granted thereon in the United States and foreign countries;

NOW, THEREFORE, for good and valuable consideration, the receipt whereof is hereby acknowledged, We, the below named inventors, hereby sell, assign and transfer to said ASSIGNEE, its successors and assigns, the entire right, title and interest in the above-identified application and the invention disclosed therein in all countries, including all divisional applications, continuation applications, and corresponding priority applications including those to which priority is claimed under the International Convention of Paris including under 35 U.S.C. 119, substitutions, and renewals thereof, and to all patents that may be granted thereon, and all reissues thereof.

We hereby authorize and request the Patent Office Officials in the United States and all foreign countries to issue patents, when granted, to said ASSIGNEE, its successors and assigns. Further, We agree that said ASSIGNEE, its successors and assigns, may apply for patents for the invention in foreign countries without further authorization from us. Also, We agree to execute all papers and generally to do everything possible to aid said ASSIGNEE, its successors and assigns, in obtaining and enforcing patents for the invention in all countries.

I hereby acknowledge that any willful false statement made in this combined declaration and assignment is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

LEGAL NAME OF FIRST INVENTOR (e.g., full first name, middle initial, last name)	
Inventor: <u>Yoo Jin Choi</u>	Date: <u>11/20/2014</u>
Signature: <u></u>	

LEGAL NAME OF SECOND INVENTOR (e.g., full first name, middle initial, last name)	
Inventor: <u>Jung Hyun Bae</u>	Date: _____
Signature: _____	

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET  
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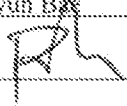
LEGAL NAME OF FIRST INVENTOR (e.g., full first name, middle initial, last name)

Inventor: Yoo Jin Choi Date: \_\_\_\_\_

Signature: \_\_\_\_\_

LEGAL NAME OF SECOND INVENTOR (e.g., full first name, middle initial, last name)

Inventor: Jung Hyun Bae Date: 11/29/14

Signature: 

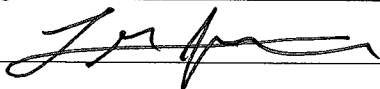
LEGAL NAME OF THIRD INVENTOR (e.g., full first name, middle initial, last name)

Inventor: Jungwon Lee

Date:

11/20/14

Signature:



LEGAL NAME OF THIRD INVENTOR (e.g., full first name, middle initial, last name)

Inventor: Inyup Kang

Date:

Signature:

LEGAL NAME OF THIRD INVENTOR (e.g., full first name, middle initial, last name)

Inventor: Jungwon Lee Date: \_\_\_\_\_

Signature: \_\_\_\_\_

LEGAL NAME OF THIRD INVENTOR (e.g., full first name, middle initial, last name)

Inventor: Inyup Kang Date: 11/21/14

Signature: 