

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT3862956

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
SANG-HYOUK CHOI	04/11/2016
YONG-HOON KIM	04/11/2016
HEE-SEONG YANG	04/11/2016
JOO-HWAN CHUN	04/10/2016
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	SAMSUNG ELECTRONICS CO., LTD
<b>Street Address:</b>	129, SAMSUNG-RO
<b>Internal Address:</b>	YEONGTONG-GU, SUWON-SI
<b>City:</b>	GYEONGGI-DO
<b>State/Country:</b>	KOREA, REPUBLIC OF
<b>Postal Code:</b>	16677
<b>Name:</b>	KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY
<b>Street Address:</b>	291, DAEHAK-RO
<b>Internal Address:</b>	YUSEONG-GU
<b>City:</b>	DAEJEON
<b>State/Country:</b>	KOREA, REPUBLIC OF
<b>Postal Code:</b>	305-701
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15035201
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(972)628-3616
<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>	972-628-3600
<b>Email:</b>	patents@munckwilson.com
<b>Correspondent Name:</b>	DOCKET CLERK
<b>Address Line 1:</b>	P.O. DRAWER 800889
<b>Address Line 4:</b>	DALLAS, TEXAS 75380

<b>ATTORNEY DOCKET NUMBER:</b>	SAMS05-21507
<b>NAME OF SUBMITTER:</b>	WILLIAM A. MUNCK
<b>SIGNATURE:</b>	/William A. Munck/
<b>DATE SIGNED:</b>	05/06/2016
<b>Total Attachments: 2</b> source=Assignment#page1.tif source=Assignment#page2.tif	

ASSIGNMENT

WHEREAS, We, Sang-Hyounk CHOI, resident of Chungju-si, Chungcheongbuk-do, Republic of Korea, citizen of Republic of Korea, Yong-Hoon KIM, resident of Suwon-si, Gyeonggi-do, Republic of Korea, citizen of Republic of Korea, Hee-Seong YANG, resident of Gangnam-gu, Seoul, Republic of Korea, citizen of Republic of Korea, Joo-Hwan CHUN, resident of Yuseong-gu, Daejeon, Republic of Korea, citizen of Republic of Korea, have invented certain new and useful improvements in "METHOD AND DEVICE FOR TRANSMITTING AND RECEIVING SIGNAL BY USING MULTIPLE BEAMS IN WIRELESS COMMUNICATION SYSTEM" disclosed in an application for United States Letters Patent (Application Serial No. \_\_\_\_/\_\_\_\_\_, filed on \_\_\_\_\_, said application having been executed concurrently herewith;

WHEREAS, **SAMSUNG ELECTRONICS CO., LTD**, a corporation organized under the laws of the Republic of Korea, having a place of business at 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Republic of Korea and **KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY**, a corporation organized under the laws of the Republic of Korea, having a place of business at 291, Daehak-ro, Yuseong-gu, Daejeon, 305-701, Republic of Korea (hereinafter referred to as "ASSIGNEES"), are desirous of acquiring our entire right, title and interest in and to the invention, and in and to the said application and any Letters Patent that may issue thereon;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I do hereby sell, assign and transfer unto said ASSIGNEES, its successors, assigns and legal representatives, the full and exclusive right, title and interest in and to said invention and in and to said application and all patents which may be granted therefor, and all divisions, reissues, substitutions, continuations, continuations-in-part and extensions thereof; I authorize William A. Munck of Munck Wilson Mandala, LLP to insert in the parenthesis above the application number and filing date of said application when known; and I hereby authorize and request the Commissioner of Patents and Trademarks to issue all patents for said invention, or patents resulting therefrom, insofar as my interest is concerned, to the said ASSIGNEES of my entire right, title and interest.

I also hereby sell and assign to said ASSIGNEES, its successors, assigns and legal representatives the full and exclusive rights, title and interest to the invention disclosed in said application throughout the world, including the right to file applications and obtain patents, utility models, industrial models and designs for said invention in its own name throughout the world including all rights of priority, all rights to publish cautionary notices reserving ownership of said invention and all rights to register said invention in appropriate registries; and I further agree to execute any and all powers of attorney, applications, assignments, declarations, affidavits, and any other papers in connection therewith necessary to perfect such rights, title and interest in

ASSIGNEES, its successors, assigns and legal representatives.

I hereby further agree that I will communicate to said ASSIGNEES, or to its successors, assigns and legal representatives, any facts known to me respecting any improvements; and, at the expense of said ASSIGNEES, to testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, continuation-in-part, reissue and substitute applications, and make all lawful oaths, and generally do everything possible to vest title in said ASSIGNEES and to aid said ASSIGNEES, its successors, assigns and legal representatives to obtain and enforce proper protection for said invention in all countries.

Date: 4/11/2016

최상혁

Sang-Hyounk CHOI

Date: 4/11/2016

Yonghoon Kim

Yong-Hoon KIM

Date: 4/11/2016

Heeseong Yang

Hee-Seong YANG

Date: Apr. 10, 2016

Joo-Hwan Chun

Joo-Hwan CHUN