

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

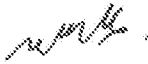
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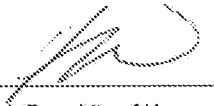
<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
YOUNGSUNG KIM	03/17/2017
BYUNGIN YOO	03/17/2017
YOUNGJUN KWAK	03/17/2017
CHANG KYU CHOI	03/17/2017
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	SAMSUNG ELECTRONICS CO., LTD.
<b>Street Address:</b>	129, SAMSUNG-RO, YEONGTONG-GU, GYEONGGI-DO
<b>City:</b>	SUWON-S
<b>State/Country:</b>	KOREA, REPUBLIC OF
<b>Postal Code:</b>	16677
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	15467396
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(202)315-3758
<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>	202-429-0020
<b>Email:</b>	pto@nsiplaw.com
<b>Correspondent Name:</b>	NSIP LAW
<b>Address Line 1:</b>	P.O. BOX 65745
<b>Address Line 4:</b>	WASHINGTON, D.C. 20035
<b>ATTORNEY DOCKET NUMBER:</b>	012052.1438
<b>NAME OF SUBMITTER:</b>	S. MAHMOOD AHMAD
<b>SIGNATURE:</b>	/S. Mahmood Ahmad/
<b>DATE SIGNED:</b>	03/23/2017
<b>Total Attachments: 2</b>	
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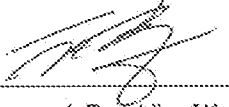
## COMBINED DECLARATION AND ASSIGNMENT UNDER 37 CFR 1.63(e)

In witness whereof, I, as a below-named inventor and assignor, intending to be legally bound, have hereunto affixed my signature on the date indicated below next to my signature.

Inventor's Legal Name	Youngsung KIM		
Inventor's Signature		Date	March 17, 2017
Residence (City, Country)	Suwon-si, Republic of Korea		
Mailing Address	Samsung Advanced Institute of Technology, 130 Samsung-ro, Youngtong-gu, Suwon-si, Gyeonggi-do, 16678, Republic of Korea		

Inventor's Legal Name	Byungin YOO		
Inventor's Signature		Date	March 17, 2017
Residence (City, Country)	Seoul, Republic of Korea		
Mailing Address	Samsung Advanced Institute of Technology, 130 Samsung-ro, Youngtong-gu, Suwon-si, Gyeonggi-do, 16678, Republic of Korea		

Inventor's Legal Name	Youngjun KWAK		
Inventor's Signature		Date	March 17, 2017
Residence (City, Country)	Seoul, Republic of Korea		
Mailing Address	Samsung Advanced Institute of Technology, 130 Samsung-ro, Youngtong-gu, Suwon-si, Gyeonggi-do, 16678, Republic of Korea		

Inventor's Legal Name	Chang Kyu CHOI		
Inventor's Signature		Date	March 17, 2017
Residence (City, Country)	Seongnam-si, Republic of Korea		
Mailing Address	Samsung Advanced Institute of Technology, 130 Samsung-ro, Youngtong-gu, Suwon-si, Gyeonggi-do, 16678, Republic of Korea		