

PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT3359528

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
JONGPAL KIM	05/14/2015
TAKHYUNG LEE	05/14/2015
HYOUNG HO KO	05/12/2015
RECEIVING PARTY DATA	
Name:	SAMSUNG ELECTRONICS CO., LTD.
Street Address:	129, SAMSUNG-RO, YEONGTONG-GU, GYEONGGI-DO 443-742
City:	SUWON-SI
State/Country:	KOREA, REPUBLIC OF
Name:	THE INDUSTRY & ACADEMIC COOPERATION IN CHUNGNAM NATIONAL UNIVERSITY (IAC)
Street Address:	99 DAEHAK-RO, YUSEONG-GU 305-764
City:	DAEJEON
State/Country:	KOREA, REPUBLIC OF
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	14715949
CORRESPONDENCE DATA	
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Email:	pto@nsiplaw.com
Correspondent Name:	NSIP LAW
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Address Line 4:	WASHINGTON, D.C. 20035
ATTORNEY DOCKET NUMBER:	012052.1272
NAME OF SUBMITTER:	RANDALL S. SVIHLA
SIGNATURE:	/Randall S. Svihla/
DATE SIGNED:	05/19/2015

Total Attachments: 4

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COMBINED DECLARATION AND ASSIGNMENT UNDER 37 CFR 1.63(e)

DECLARATION

As a below-named inventor, I hereby declare that this declaration is directed to the application attached hereto, or to United States Application Number or PCT International Application Number _____ filed on _____ (if applicable), entitled:

SIGNAL PROCESSING METHOD AND APPARATUS

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

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

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

I have reviewed and understand the contents of the above-identified application, including the claims.

I am aware of the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information that became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

ASSIGNMENT

For valuable consideration, I, as a below-named assignor, hereby assign to:

Samsung Electronics Co., Ltd.
129, Samsung-ro, Yeongtong-gu
Suwon-si, Gyeonggi-do 443-742
Republic of Korea

The Industry & Academic Cooperation in Chungnam National University (IAC)
99 Daehak-ro, Yuseong-gu
Daejeon 305-764
Republic of Korea

and their successors and assigns (collectively hereinafter called "the Assignees"), the entire right, title, and interest throughout the world in the inventions and improvements that are the subject of the application identified in the above declaration, which is United States Application Number or PCT International Application Number 14/715,949 filed on May 19, 2015.

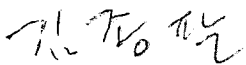
I authorize and request the attorneys appointed in the above-identified application to hereafter complete this Assignment by inserting above the application number and the filing date of the above-identified application when known, and to correct any typographical errors that may be discovered in this Assignment.


This Assignment includes the above-identified application, any and all United States and foreign patents, utility models, and design registrations granted for any of the inventions and improvements that are the subject of the above-identified application, and the right to claim priority based on the filing date of the above-identified application under the International Convention for the Protection of Industrial Property, the Patent Cooperation

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Treaty, the European Patent Convention, and all other treaties of like purposes; and I authorize the Assignees to apply in all countries in my name or in their own names for patents, utility models, design registrations, like rights of exclusion, and inventors' certificates for any of the inventions and improvements that are the subject of the above-identified application; and I agree for myself and my heirs, legal representatives, and assigns without further compensation to perform such lawful acts and to sign such further applications, Assignments, preliminary statements, and other lawful documents as the Assignees may reasonably request to effectuate fully this Assignment.

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	JongPal KIM		
Inventor's Signature		Date	May 14, 2015
Residence (City, Country)	Seoul, Republic of Korea		
Mailing Address	Samsung Advanced Institute of Technology, 130 Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do 443-803, Republic of Korea		

Inventor's Legal Name	TakHyung LEE		
Inventor's Signature		Date	May 14, 2015
Residence (City, Country)	Suwon-si, Republic of Korea		
Mailing Address	Samsung Advanced Institute of Technology, 130 Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 443-803 Republic of Korea		

Inventor's Legal Name	Hyoung Ho KO		
Inventor's Signature		Date	
Residence (City, Country)	Daejeon, Republic of Korea		
Mailing Address	99 Daehak-ro, Yuseong-gu, Daejeon 305-764, Republic of Korea		

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As a below-named inventor, I hereby declare that this declaration is directed to the application attached hereto, or to United States Application Number or PCT International Application Number _____ filed on _____ (if applicable), entitled:

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ASSIGNMENT

For valuable consideration, I, as a below-named assignor, hereby assign to:

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129, Samsung-ro, Yeongtong-gu
Suwon-si, Gyeonggi-do 443-742
Republic of Korea

The Industry & Academic Cooperation in Chungnam National University (IAC)
99 Daehak-ro, Yuseong-gu
Daejeon 305-764
Republic of Korea

and their successors and assigns (collectively hereinafter called "the Assignees"), the entire right, title, and interest throughout the world in the inventions and improvements that are the subject of the application identified in the above declaration, which is United States Application Number or PCT International Application Number 14/715,949 filed on May 19, 2015.

I authorize and request the attorneys appointed in the above-identified application to hereafter complete this Assignment by inserting above the application number and the filing date of the above-identified application when known, and to correct any typographical errors that may be discovered in this Assignment.

This Assignment includes the above-identified application, any and all United States and foreign patents, utility models, and design registrations granted for any of the inventions and improvements that are the subject of the above-identified application, and the right to claim priority based on the filing date of the above-identified application under the International Convention for the Protection of Industrial Property, the Patent Cooperation

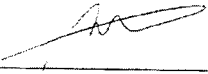
COMBINED DECLARATION AND ASSIGNMENT UNDER 37 CFR 1.63(e)

Treaty, the European Patent Convention, and all other treaties of like purposes; and I authorize the Assignees to apply in all countries in my name or in their own names for patents, utility models, design registrations, like rights of exclusion, and inventors' certificates for any of the inventions and improvements that are the subject of the above-identified application; and I agree for myself and my heirs, legal representatives, and assigns without further compensation to perform such lawful acts and to sign such further applications, Assignments, preliminary statements, and other lawful documents as the Assignees may reasonably request to effectuate fully this Assignment.

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	JongPal KIM		
Inventor's Signature		Date	
Residence (City, Country)	Seoul, Republic of Korea		
Mailing Address	Samsung Advanced Institute of Technology, 130 Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do 443-803, Republic of Korea		

Inventor's Legal Name	TakHyung LEE		
Inventor's Signature		Date	
Residence (City, Country)	Suwon-si, Republic of Korea		
Mailing Address	Samsung Advanced Institute of Technology, 130 Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 443-803 Republic of Korea		

Inventor's Legal Name	Hyoung Ho KO		
Inventor's Signature		Date	May 12, 2015
Residence (City, Country)	Daejeon, Republic of Korea		
Mailing Address	99 Daehak-ro, Yuseong-gu, Daejeon 305-764, Republic of Korea		