502559677 11/06/2013

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SHULI GENG	10/16/2013
WOOGEUN RHEE	10/16/2013
JONG JIN KIM	10/16/2013
DONG WOOK KIM	10/16/2013
ZHIHUA WANG	10/16/2013

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PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13966644

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PATENT

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NAME OF SUBMITTER:	RANDALL S. SVIHLA	
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Date: 11/06/2013		
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PATENT REEL: 031554 FRAME: 0153

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 United States Application Number 13/966,644 filed on August 14, 2013, and amended on August 14, 2013, entitled:

APPARATUS AND METHOD FOR GENERATING GAUSSIAN PULSE AND ULTRA WIDEBAND COMMUNICATION APPARATUS FOR GENERATING GAUSSIAN PULSE

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 Tsinghua University Haidian District Beijing 100084 People's Republic of China

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 13/966,644 filed on August 14, 2013.

I authorize and request the attorneys appointed in the above-identified application 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 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

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COMBINED DECLARATION AND ASSIGNMENT UNDER 37 CFR 1.63(e)

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 Signature Show' Georg Residence (City, Country) Beijing, People's Republic of China Institute of Microelectronics, Tsinghua University, Haidian District, Beijing 100084, Republic of China Inventor's Legal Name Woogeun Rhee Inventor's Signature Beijing, People's Republic of China Residence (City, Country) Beijing, People's Republic of China Institute of Microelectronics, Tsinghua University, Haidian District, Beijing 100084, Republic of China Inventor's Legal Name Jong Jin KIM Inventor's Signature Residence (City, Country) Hwaseong-si, Republic of Korea Samsung Advanced Institute of Technology, Mt. 14-1, Nongseo-dong, Giheung-gusi, Gyeonggi-do 446-712, Republic of Korea Inventor's Legal Name Dong Wook KIM	Inventor's Legal Name	Shuli Geng			
Institute of Microelectronics, Tsinghua University, Haidian District, Beijing 100084, Republic of China Inventor's Legal Name Woogeun Rhee Inventor's Signature Beijing, People's Republic of China Institute of Microelectronics, Tsinghua University, Haidian District, Beijing 100084, Republic of China Institute of Microelectronics, Tsinghua University, Haidian District, Beijing 100084, Republic of China Inventor's Legal Name Jong Jin KIM Inventor's Signature Date Out 16, 2013 Residence (City, Country) Hwaseong-si, Republic of Korea Samsung Advanced Institute of Technology, Mt. 14-1, Nongseo-dong, Giheung-gusi, Gyeonggi-do 446-712, Republic of Korea	Inventor's Signature	Shuli Geng	Date	2013.10.16	
Inventor's Legal Name Woogeun Rhee Inventor's Signature Beijing, People's Republic of China Institute of Microelectronics, Tsinghua University, Haidian District, Beijing 100084, Republic of China Inventor's Legal Name Jong Jin KIM Inventor's Signature Date Out 16, 2013 Residence (City, Country) Date Out 16, 2013 Residence (City, Country) Hwaseong-si, Republic of Korea Samsung Advanced Institute of Technology, Mt. 14-1, Nongseo-dong, Giheung-gusi, Gyeonggi-do 446-712, Republic of Korea	Residence (City, Country)	Beijing, People's Republic of China			
Inventor's Signature Beijing, People's Republic of China Institute of Microelectronics, Tsinghua University, Haidian District, Beijing 100084, Republic of China Inventor's Legal Name Jong Jin KIM Inventor's Signature Date Date Date Date Date Date Date Date Date Mailing Address Mailing Address Samsung Advanced Institute of Technology, Mt. 14-1, Nongseo-dong, Giheung-gusi, Gyeonggi-do 446-712, Republic of Korea	Mailing Address	Institute of Microelectronics, Tsinghua University, Haidian District, Beijing 100084, People's Republic of China			
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Inventor's Legal Name Dong Wook KIM			<u></u> ,		
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Inventor's Signature Date Oct 16, 2013	Inventor's Signature	16	Date	Oct 16, 2013	

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012052.0718 RL-201207-003-1-US0_FPE-2012-0688/US

COMBINED DECLARATION AND ASSIGNMENT UNDER 37 CFR 1.63(e)

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