504159696 12/30/2016

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4206371

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JANKI BHIMANI	11/04/2016
JINGPEI YANG	11/03/2016
CHANGHO CHOI	11/03/2016
JIANJIAN HUO	11/03/2016

RECEIVING PARTY DATA

Name:	SAMSUNG ELECTRONICS CO., LTD
Street Address:	129, SAMSUNG-RO, YEONGTONG-GU
City:	SUWON-SI, GYEONGGI-DO
State/Country:	KOREA, REPUBLIC OF
Postal Code:	16677

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15344422

CORRESPONDENCE DATA

Fax Number: (626)577-8800

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.

Phone: 626 795-9900 Email: pto@lrrc.com

LEWIS ROCA ROTHGERBER CHRISTIE LLP **Correspondent Name:**

Address Line 1: P.O. BOX 29001

Address Line 4: GLENDALE, CALIFORNIA 91209

ATTORNEY DOCKET NUMBER:	128655 (414471) MJC/VDW	
NAME OF SUBMITTER:	VICKIE D. WALL	
SIGNATURE:	/Vickie D. Wall/	
DATE SIGNED:	12/30/2016	

Total Attachments: 4

source=WB-201607-021-1_128655_Assignment#page1.tif source=WB-201607-021-1 128655 Assignment#page2.tif source=WB-201607-021-1 128655 Assignment#page3.tif

PATENT REEL: 040811 FRAME: 0726 504159696

 $source = WB-201607-021-1_128655_Assignment\#page4.tif$

PATENT REEL: 040811 FRAME: 0727

COMBINED DECLARATION (37 CFR §1.63) FOR UTILITY OR DESIGN PATENT APPLICATION AND ASSIGNMENT FORM¹

The undersigned acknowledges that this document is being used both as an assignment of the				
invention and as the declaration (37 CFR 1.63) for a Utility or Design Application.				
WHEREAS, the	undersigned, hereinafter referred	l to collectively as Assignor,	has invented:	
Title: SMAR1	TI/O STREAM DETECTION BASED ON	I MULTIPLE ATTRIBUTES		
for which Assig	nor is about to make or has made	United States or Internatio	nal application for	
WHEREAS, as a	below named inventor(s), I/(we)	hereby declare that:		
Section I. Decl	aration			
This declaration	n is directed to:			
	The attached U.S. non-provisiona	l patent application, or		
	U.S. non-provisional patent applic on <u>November 4, 2016</u> , or	ation number <u>15/344,422</u>	_ filed	
	PCT international patent applicati 	on number	, filed on	
The above-ider	ntified application was made or au	thorized to be made by me	(us).	
	hat I am (we are) the original inve e above-identified application.	ntor (original joint inventor	s) of a claimed	
¹ This form requi	res the use of an Application Data Sheet.			
SEC Ref No.	WB-201607-021-1	Attorney Ref No.	128655	

COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM
Page 1 of 4

PATENT REEL: 040811 FRAME: 0728 I (we) hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

I hereby state that I have reviewed and understand the contents of the above identified application, including the claims.

I acknowledge that I am aware of the duty to disclose information which is material to patentability as defined in 37 CFR § 1.56.

Section II. Assignment

In consideration of and according to the provisions of the Assignor's employment agreement(s), the undersigned hereby sell(s) and assign(s) to

Samsung Electronics Co., Ltd.

having an address at 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do 16677, Republic of Korea (hereinafter designated as the Assignee), the entire (100%) right, title and interest for the United States as defined in 35 USC §100, in the invention or design described in the application identified in Section I of this document.

Assignor hereby confirms any prior assignment to Assignee, and to the extent that Assignor has not already done so, agrees to assign, and hereby does, sell, assign and transfer unto Assignee and its successors in interest, the full and exclusive right, title and interest in the United States of America and throughout the world, including the right to claim priority under the laws of the United States, the Paris Convention, and any foreign countries, to the inventions or designs as described in the aforesaid application, to the aforesaid application itself, and to provisional application(s) 62/383,302, 62/245,100 and 62/192,045 to which the aforesaid application claims priority, and to all divisions, continuations, continuations-in-part, or other applications claiming priority directly or indirectly from the aforesaid application or provisional, and any United States or foreign Letters Patent, utility model, or other similar rights which may be granted thereon, including reissues, reexaminations and extensions thereof, and all copyright rights throughout the world in the aforesaid application and the subject matter disclosed therein, these rights, title and interest to be held and enjoyed by Assignee to the full end of the term for which the Letters Patent, utility model, or other similar rights, are granted and any extensions thereof as fully and entirely as the same would have been held by Assignor had this assignment and sale not been made, and the right to sue for, and recover for past

SEC Ref No.	WB-201607-021-1	Attorney Ref No.	1286	55	
	<u></u>	•			

Tanadiinidii ja jälinetti kunna – a liinis

infringements of, or liabilities for, any of the rights relating to any of the applications, patents, utility models, or other similar rights, resulting therefrom, and the copyright rights;

Assignor hereby covenants and agrees to execute all instruments or documents required or requested for the making and prosecution of any applications of any type for patent, utility model, or other similar rights, and for copyright, in the United States and in all foreign countries including, but not limited to, any provisional, continuation, continuation-in-part, divisional, renewal or substitute thereof, and as to letters patent any reissue, re-examination, or extension thereof, and for litigation regarding, or for the purpose of protecting title and to the said invention, the United States application for patent, or Letters Patent therefor, and to testify in support thereof, for the benefit of Assignee without further or other compensation than that above set forth;

Assignor hereby covenants that no assignment, sale, license, agreement or encumbrance has been or will be entered into which would conflict with this Assignment; and

Assignor hereby requests the United States Patent and Trademark Office to issue the Letters Patent of the United States of America to Assignee, and requests that any official of any country or countries foreign to the United States, whose duty it is to issue or grant patents and applications as aforesaid, to issue the Letters Patent, Utility Model Registration or other similar right to Assignee.

The undersigned hereby grant(s) the law firm of Lewis Roca Rothgerber Christie LLP the power to insert on this Declaration and Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office for recordation of this document.

Section III. Inventor(s)/Assignor(s) Signature(s)

LEGAL NAME OF FIRST	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	BHIMANI	Janki	S.
SIGNATURE	Avi	DATE	11/04/2016

SEC Ref No.	WB-201607-021-1	Attorney Ref No.	128655

COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM
Page 3 of 4

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
SECOND INVENTOR/ASSIGNOR	YANG	Jingpei	
SIGNATURE	Jun 2	/3/2016 DATE	

LEGAL NAME OF	Family Name	First Given Name	Second Given Name
THIRD INVENTOR/ASSIGNOR	СНОІ	Changho	
	192-7		
SIGNATURE	177	11/03/16 DATE	

LEGAL NAME OF FOURTH	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	HUO	Jianjian	
SIGNATURE	X/C7ii	_ /03 /2016 DATE	

VDW PAS1447217.2-*-11/2/16 6:53 PM

SEC Ref No. WB-201607-021-1 Attorney Ref No. 128655

COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM Page 4 of 4

PATENT REEL: 040811 FRAME: 0731

RECORDED: 12/30/2016