505315647 02/06/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5362428

SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT		
	Corrective Assignment to correct the ASSIGNEE INFORMATION previously recorded on Reel 042372 Frame 0334. Assignor(s) hereby confirms the ASSIGNOR'S INTERESTS.		

CONVEYING PARTY DATA

Name	Execution Date
HESHAM MOSTAFA	04/03/2017
AIMAR ALESSANDRO	04/14/2017

RECEIVING PARTY DATA

Name:	SAMSUNG ELECTRONICS CO., LTD.
Street Address:	129, SAMSUNG-RO, YEONGTONG-GU, GYEONGGI-DO
City:	SUWON-SI
State/Country:	KOREA, REPUBLIC OF
Postal Code:	16677
Name:	UNIVERSITAET ZUERICH
Street Address:	PROREKTORAT FORSCHUNG, RAEMISTRASSE 71
City:	ZURICH
State/Country:	SWITZERLAND
Postal Code:	8006

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15581872

CORRESPONDENCE DATA

Fax Number: (202)293-7860

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: 202-293-7060

Email: sughrue@sughrue.com, thundley@sughrue.com

Correspondent Name: SUGHRUE MION, PLLC

Address Line 1: 2100 PENNSYLVANIA AVENUE, N.W.

Address Line 2: SUITE 800

Address Line 4: WASHINGTON, D.C. 20037-3213

ATTORNEY DOCKET NUMBER:	Q231872
NAME OF SUBMITTER:	/THOMAS HUNDLEY/

PATENT 505315647 REEL: 048267 FRAME: 0513

SIGNATURE:	/Thomas Hundley (Teams Dept.)/			
DATE SIGNED:	02/06/2019			
	This document serves as an Oath/Declaration (37 CFR 1.63).			
Total Attachments: 7	·			
source=Q231872RequestforCorrectedRecordation#page1.tif				
source=Q231872RequestforCorrectedRecordation#page2.tif				
source=Q231872RequestforCorrectedRecordation#page3.tif				
source=Q231872RequestforCorrectedRecordation#page4.tif				

source=Q231872RequestforCorrectedRecordation#page5.tif source=Q231872RequestforCorrectedRecordation#page6.tif source=Q231872RequestforCorrectedRecordation#page7.tif

> PATENT REEL: 048267 FRAME: 0514

504344111 04/28/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1

EPAS (0: PAT4390799)

OUDMISSION TYPE.		NEW ACCIONMENT			
NATURE OF CONVEYANCE:		ASSIGNMENT	ASSIGNMENT		
CONVEYING PARTY					
	•••••	ameK	Execution Date		
HESHAM MOSTAFA 04/03/2017					
AIMAR ALESSANDR	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		04/14/2017		
RECEIVING PARTY	DATA				
Name:	GVMGCI	NG ELECTRONICS CO. LTD.	· · · · · · · · · · · · · · · · · · ·		
Street Address:	129, SAI	MSUNG RO, YEONGTONG GU, G	YEONGGI DO	l	
City:	SUWON				
State/Country:	KOREA	REPUBLIC OF			
Postal Code:	16677			1	
Name:	Olive Cil		<u> UNIVERS</u> <u>UNIVERS</u>	ITAET ⊉ U	
Street Address:	Removement Prorektorat Forschung, Raemistrasse 71				
City:	ZURICH			1	
	anni anni anni anni anni anni anni anni			•	
State/Country:	SWITZE	RANO			
State Country: Postal Code:	SWITZE 8006	R.ANO			
Postal Code:	8006	RIANO			
	8006 (PO Total: 1	R(AND Number			
Posisi Code:	8006 :#3 Total: pe				
Postal Code: PROPERTY NUMBE Property Tyl Application Number	8006 :#3 Total: 1 ps r: 1	Number			
Postal Code: PROPERTY NUMBE Property Ty	8006 IRS TOLUL: I PS II	Number			
Postal Code: Property Tyl Application Number CORRESPONDENC Fax Number: Correspondence wi	8006 PS	Number 5581872	unsuccessiui, it will be sent sent via US Mail.	***************************************	
Postal Code: PROPERTY NUMBE Property Tyl Application Number CORRESPONDENC Fax Number: Correspondence with using a fax number, Phone: Email:	8006 PS Total: 1 PS (1) E DATA (1) be sent to (1) (1) provided;	Number 5561872 2021293-7860 the e-mail address first If that is If that is unsuccessful if will be 02-293-7060 yarborough@sughnue.com, sughruk	sent via US Mail.	***************************************	
Postal Code: PROPERTY NUMBER Property Typ Application Number CORRESPONDENC Fax Number: Correspondence with using a fax number, Phone: Email: Correspondent Name (Correspondent Name)	8006 PE TOLAL: E DATA If be sent to , if provided;	Number 5581872 202)293-7860 the e-mail address first if that is if that is unsuccessful if will be the control of the contr	sent via US Mail. : @sughrue.com	***************************************	
Postal Code: PROPERTY NUMBE Property Tyl Application Number CORRESPONDENC Fax Number: Correspondence with using a fax number, Phone: Email:	#8 Total: 1 ps III DATA III be sent to III provided;	Number 5561872 2021293-7860 the e-mail address first If that is If that is unsuccessful if will be 02-293-7060 yarborough@sughnue.com, sughruk	sent via US Mail. : @sughrue.com	***************************************	
Postal Code: PROPERTY NUMBE Property Tyl Application Number CORRESPONDENC Fax Number: Correspondence wi using a fax number, Phone: Email: Correspondent Nam Address Line 1:	8006 PS Total: 1 PS II II E DATA II be sent to If provided; 18: 2	Number 5581872 202)293-7860 The e-mail address first if that is unsuccessful if will be received a consultation of the consult	sent via US Mail. : @sughrue.com	***************************************	
Postal Code: PROPERTY NUMBER Property Tyl Application Number CORRESPONDENC Fax Number: Correspondence with using a fax number, Phone: Email: Correspondent Nam Address Line 1: Address Line 4:	8006 PS DATA Descrito provided; R: NUMBER:	Number 5581872 202)293-7860 The e-mail address first if that is if that is insuccessful if will be be a consultation of the	sent via US Mail. :@sughrue.com W		
Postal Code: PROPERTY NUMBE Property Tyl Application Number CORRESPONDENC Fax Number: Correspondence wi using a fax number, Phone: Email: Correspondent Nair Address Line 1: Address Line 4:	8006 PS DATA Descrito provided; R: NUMBER:	Number 5581872 202)293-7860 the e-mail address first if that is: if that is unsuccessful if will be rg2-293-7060 yarborough@sughrue.com, sughrue sUGHRUE MICN, PLLC 100 PENNSYLVANIA A/ENIUE, N. VASHINGTON, D.C. 2037-3213	sent via US Mail. :@sughrue.com W		

PATENT REEL: 048267 FRAME: 0515

Docket No.: Q231872 SAIT Ref: RN-201605-015-1-US0 Only After Sept 16, 2012 US Rights Only

ASSIGNMENT WITH DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63)

Whereas, We, the undersigned inventors hereinafter called assignors, have invented certain improvements described in the application identified below; and

Whereas, <u>SAMSUNG ELECTRONICS CO., LTD. of 129. Samsung-ro. Yeongtong-gu. Suwon-si. Gyeonggi-do. 16677. Republic of Korea and UNIVERSITAET ZUERICH of Prorekional Forschung. Raemistrasse 71, 8006 Zurich. Switzerland.</u> (assignees), desire to acquire the entire right, title, and interest in the application and invention, and to any United States patents to be obtained therefor;

Now therefore, for valuable consideration, receipt whereof is hereby acknowledged,

We, the above named assignors, hereby sell, assign and transfer to the above named assignees, its successors and assigns, the entire right, title and interest in the application and the invention disclosed therein for the United States of America, including all divisions, and continuations thereof, and all Letters Patent of the United States that may be granted thereon, and all reissues thereof, including the right to claim priority under 35 USC 119 and the right to sue for past damages, and we request the Director of the U.S. Patent and Trademark Office to issue any Letters Patent granted upon the invention set forth in the application to the assignees, its successors and assigns; and we will execute without further consideration all papers deemed necessary by the assignees in connection with the United States application when called upon to do so by the assignees.

CONVOLUTION PROCESSING APPARATUS AND METHOD

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

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

(Legalization not required for recording but is prima facie evidence of execution under 35 USC 261)

I have reviewed and understand the contents of the application for which this assignment with declaration is being submitted.

I am aware of the duty to disclose to the Office all information known to me to be material to patentability as defined in 37 CFR 1.56.

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

PATENT REEL: 048267 FRAME: 0516

NAME OF SOLE OR FIRST INVENT	······································			
Given Name (first and middle [if any])	Hesham	Family Name or Surname	MOSTAFA	
Inventor's signature 1400	iham Mosleja	Date	April 3, 2017	
Residence: San Diego, United States	of America			
Mailing Address: 3980 8th avenue, un	it 218, San Diego, CA-92103, I	JSA		
NAME OF SECOND INVENTOR:				
Given Name (first and middle [if any])	Aimar	Family Name or Surname	ALESSANDRO	
Inventor's signature	16 May 1	Date		
Residence: Opfikon, Switzerland				
Mailing Address: Projektorat Forschin	ng Raemistrasse 7) 8006-70	sid C. s. A 3		

[Page 2]

PATENT

RECORDED: 02/06/2019

REEL: 048267 FRAME: 0517