### 503759928 03/30/2016

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3806574

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
RAUL ETKIN	01/28/2016
BHASKAR NALLAPUREDDY	01/28/2016
JUNGWON LEE	01/29/2016

#### **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

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	15010486

#### **CORRESPONDENCE DATA**

**Fax Number:** (516)228-8475

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:** 5162283565

**Email:** Genmail@farrelliplaw.com

Correspondent Name: PAUL J. FARRELL

Address Line 1: 290 BROADHOLLOW ROAD, SUITE 210 E

Address Line 4: MELVILLE, NEW YORK 11747

ATTORNEY DOCKET NUMBER:	2180-50
NAME OF SUBMITTER:	PAUL J. FARRELL
SIGNATURE:	/pjf/
DATE SIGNED:	03/30/2016
	This document serves as an Oath/Declaration (37 CFR 1.63).

### **Total Attachments: 8**

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SAMSUNG ELECTRONICS CO., LTD. COMBINED DECLARATION (37 CFR §1.63) FDF UTILITY OR DESIGN PATENT APPLICATION AND ASSIGNMENT FORM<sup>1</sup> 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 to collectively as Assignor, has invented: APPARATUS FOR AND METHOD OF CHANNEL ESTIMATION BUFFER COMPRESSION VIA DECIMATION, PREDICTION, AND ERROR ENCODING for which Assignor is about to make or has made United States or International application for patent. WHEREAS, as a below named inventor(s), I/(we) hereby declare that: Section I. Declaration This declaration is directed to: M The attached U.S. non-provisional patent application, or filed on: January 29, 2016 PCT international patent application number filed on The above-identified application was made or authorized to be made by me (us). I (we) believe that I am (we are) the original inventor (original joint inventors) of a claimed invention in the above-identified application.

EC Ref No. WB-201510-026-1 Attorney Ref No. 2180-50

COMBINED DECLARATION (87 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM Page 1 of 4

This form requires the use of an Application Data Shee

SAMSUNG ELECTRONICS CO., LTD.

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. 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 th consideration of and according to the provisions of the Assignor's employment agreement(s), he 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 443-742, 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 all divisions, continuations, continuations-in-part, or other applications claiming priority directly or indirectly from the aforesaid application, 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 infringements of, of 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; SEC Ref No. WB-201510-026-1 Attorney Ref No.

COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM Page 2 of 4

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 aforesald, to issue the Letters Patent, Utility Model Registration or other similar right to Assignee.

The undersigned hereby grant(s) the law firm of The Farrell Law Firm 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 O	<del>[</del>   ].	Family Na	me. : ···	Firs	t Given Name	Second Given Name
FIRST INVENTOR/ASSIGN	IOR   1	ETKIN	T I II I	<u> </u>	Raul	н
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LEGAL NAME OF	Family Name	· First Given Name	Second Given Name
SECOND INVENTOR/ASSIGNOR	NALLAPUREDDY	Bhaskar	
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. LEGAL NAME OF	Family Name	First Given Name	Second Given Name
INVENTOR/ASSIGNOR	LEE	Jungwon	
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SAMSUNG ELECTRONICS CO., LTD.

## COMBINED DECLARATION (37 CFR §1.63) FOR UTILITY OR DESIGN PATENT APPLICATION AND ASSIGNMENT FORM<sup>1</sup>

The un	dersign	ed acknowledges that this document is being us	ed both as an assignment of the
inventi	on and	as the declaration (37 CFR 1.63) for a Utility or 0	esign Application.
WHERE	AS, the	e undersigned, hereinafter referred to collective	y as Assignor, has invented:
Title:		RATUS FOR AND METHOD OF CHANNEL ESTIMATION AND ERROR ENCODING	N BUFFER COMPRESSION VIA
for whi		gnor is about to make or has made United State	s or International application for
WHERE	AS, as	a below named inventor(s), i/(we) hereby declar	e that:
Section	ı. Dec	daration	
This de	claratio	on is directed to:	
	$\boxtimes$	The attached U.S. non-provisional patent appli	cation, or
		U.S. non-provisional patent application number January 29 , 2016 , or	, filed on
		PCT international patent application number	filed on
The ab	ove-ide	entified application was made or authorized to b	e made by me (us).
		that I am (we are) the original inventor (original he above-identified application.	joint inventors) of a claimed
1 This fo	orm requ	uires the use of an Application Data Sheet.	
SEC Ref	f No	WB-201510-026-1 Attorney Ref	No. <u>2180-50</u>
		PECLARATION (37 CFR 1.63) FOR UTILITY PATENT APP 20160129084712 Page 1 of 4	LICATION AND ASSIGNMENT FORM 473401454024647  INTO 1 10 11 11 11 11 11 11 11 11 11 11 11 1

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SAMSUNG ELECTRONICS CO	) I	ITD.
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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 nbt 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-\$i, Gyeonggi-do 443-742, 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 all divisions, continuations, continuations-in-part, or other applications claiming priority directly or indirectly from the aforesaid application, 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 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;

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COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY PATENT APPLICATION AND ASSIGNMENT FORM 473401454024647

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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 projecting 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 of 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 The Farrell Law Firm 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)

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LEGAL NAME OF	Family Name	First Give	n Name	Second Given Nam
SECOND INVENTOR/ASSIGNOR	NALLAPUREDDY	Bha	kar	
SIGNATURE		_	DATE	
LEGAL NAME OF	Family Name	First Give	o Name	Second Given Nam
THIRD				- Jecond Given Man
INVENTOR/ASSIGNOR	LEE .	Jung	won	
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RECORDED: 03/30/2016