PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5715649

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	: ASSIGNMENT	

CONVEYING PARTY DATA

Name	Execution Date
WOO SUK KANG	09/04/2019
CHAE UP YOO	09/04/2019
SE WOONG KIM	09/04/2019
SANG BONG SUNG	09/04/2019
SU MIN YUN	09/04/2019
IN YOUNG LEE	09/04/2019

RECEIVING PARTY DATA

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

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16493494

CORRESPONDENCE DATA

Fax Number:

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: 202-293-0804

Email: usdocketing@jeffersonip.com
Correspondent Name: JEFFERSON IP LAW, LLP

Address Line 1: 1130 CONNECTICUT AVE., NW, SUITE 420

Address Line 4: WASHINGTON, D.C. 20036

ATTORNEY DOCKET NUMBER: 0210-0386

NAME OF SUBMITTER: MAULIN M. PATEL

SIGNATURE: /Maulin M. PATEL/

DATE SIGNED: 09/12/2019

Total Attachments: 4

PATENT REEL: 050358 FRAME: 0041

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> PATENT REEL: 050358 FRAME: 0042

RECORDATION FO	ORM COVER SHEET		
PATENT	S ONLY		
To the Director of the U.S. Patent and Trademark Office: Pleas	se record the attached documents or the new address(es) below.		
1. Name of conveying party(ies) 1) Woo Suk KANG, 2) Chae Up YOO, 3) Se Woong KIM, 4) Sang Bong SUNG, 5) Su Min YUN and 6) In Young LEE	2. Name and address of receiving party(ies) Name: Samsung Electronics Co., Ltd. Internal Address:		
Additional name(s) of conveying party(ies) attached? Yes No 3. Nature of conveyance/Execution Date(s): Execution Date(s) September 4, 2019 Assignment Merger Security Agreement Change of Name Joint Research Agreement Government Interest Assignment Executive Order 9424, Confirmatory License Other	Street Address: 129, Samsung-ro, Yeongtong-gu City: Suwon-si, Gyeonggi-do State: Country: Republic of Korea Zip: 16677 Additional name(s) & address(es) attached? Yes No		
A. Patent Application No.(s) 16/493,494 Additional numbers at	document is being filed together with a new application. B. Patent No.(s) ached? Yes No		
5. Name and address to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved: One		
Name: Jefferson IP Law, LLP	7. Total fee (37 CFR 1.21(h) & 3.41) \$		
Internal Address: Maulin M. Patel Street Address: 1130 Connecticut Ave., NW, Suite 420	Authorized to be charged by credit card Authorized to be charged to deposit account Enclosed None required (government interest not affecting title)		
City: Washington	8. Payment Information		
State: District of Columbia Zip:20036	a. Credit Card Last 4 Numbers		
Phone Number: 202-293-0804	Expiration Date		
Fax Number: 202-403-3587	b. Deposit Account Number		
Email Address: usdocketing@jeffersonip.com	Authorized User Name		
9. Signature: /Maulin M. PATEL/ Reg. #5 Signature Maulin M. Patel	September 12, 2019 Date Total number of pages including cover sheet, attachments, and documents:		
Name of Person Signing	in the state of th		

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to: Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

REEL: 050358 FRAME: 0043

DOCKET NO.: 0210-0386

CLIENT REF.: 2018-OPSE-1021/US SAMSUNG REF.: GM-201703-009-1-US0

<u>Assignment</u>

WHEREAS, the following inventors, namely 1) Woo Suk KANG, 2) Chae Up YOO, 3) Se Woong KIM, 4) Sang Bong SUNG, 5) Su Min YUN, and 6) In Young LEE (hereinafter called "Assignors"), having made or discovered certain new, useful and non-obvious improvements in an invention having a working title of:

ELECTRONIC DEVICE COMPRISING ANTENNA,

for which a United States Patent Application is being filed concurrently herewith or, if not being concurrently filed, was filed on September 12, 2019, and assigned Serial No. 16/493,494; and,

WHEREAS, Samsung Electronics Co., Ltd., a corporation duly organized under the laws of the Republic of Korea, located and doing business at 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea, 16677 (hereinafter called "Assignee"), is desirous of acquiring the entire right, title and interest therein;

NOW, THEREFORE, BE IT KNOWN that for and in good and valuable consideration. the receipt and sufficiency of which are hereby acknowledged. Assignors do hereby sell, assign and transfer anto said Assignee the entire and exclusive worldwide right, title and interest in and to all said inventions and discoveries disclosed in said application, and in and to said application, any and all substitutions, divisions, provisionals, conversions of provisionals and continuations thereof, and in and to all Letters Patent, United States and all other foreign countries, that may be granted for said inventions and discoveries, and in and to all extensions, renewals and reissues thereof; and the right to file any other foreign country application and/or claim priority under the provisions of any international treaty or convention arising from this application or any divisional, continuing, substitute or reissue application therefrom. The aforesaid assignment includes the right in and to all income, royalties, damages and payments, now or hereafter due or payable with respect to any Letters Patent which may be granted, and in and to all causes of action (either in law or in equity), and the right to sue, counterclaim, and recover for past, present and future infringement of the rights assigned or to be assigned under this Assignment, as fully and entirely as the same would have been held and enjoyed by Assignors if this sale, assignment and transfer had not been made.

Assignors covenant and agree, without further compensation to said Assignors but at Assignoe's expense:

- a. to execute:
 - all papers to be used in connection with this application and any divisional, continuing, substitute or reissue application thereof, as the Assignee may deem necessary or expedient, and
 - all papers in connection with any interference, litigation, mediation, arbitration or other proceeding relating to this application or any divisional, continuing, substitute or reissue application thereof, as may be necessary or expedient;
- b. to cooperate with the Assignee in every way possible in obtaining evidence and going forward in any interference, litigation, mediation, arbitration or other

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CLIENT REF.: 2018-OPSE-1021/US SAMSUNG REF.: GM-201703-009-1-US0

- proceeding relating to said invention, said application and any divisional, continuing, substitute or reissue application thereof;
- to communicate to the Assignee any facts relating to said invention, said application and any divisional, continuing, substitute or reissue application thereof, including evidence for any interference, litigation, mediation, arbitration or other proceeding relating to said invention, whenever requested;
- d. to testify in any interference, litigation, mediation, arbitration or other proceeding relating to said invention, said application and any divisional, continuing, substitute or reissue application thereof whenever requested; and
- e. to perform all other affirmative acts which may be necessary or desirable to secure full and complete protection of the inventions and discoveries or that may be necessary or desirable to vest in Assignee the complete title to the inventions and discoveries and Letters Patent hereby conveyed and to enable Assignee to record title.

Assignors hereby authorize and request the United States Patent and Trademark Office or any other issuing authority to issue any and all Letters Patent that may be granted upon this invention and/or this application or any divisional, continuing, substitute or reissue application thereof to the Assignee, its legal representatives, successors and assigns.

Assignors each hereby represents, covenants and warrants that he or she has the full right to convey the entire right, title and interest by this instrument, free of any encumbrances and that no other agreement has been or will be executed in conflict herewith.

The provisions of this Assignment are binding upon Assignors' heirs, legal representatives and/or administrators and assigns.

Assignors hereby grant to the law firm of Jefferson IP Law, LLP of Washington, DC and its attorneys and agents as associated with Customer No. 68103 the authority and power to insert on this instrument any further identification which may be necessary or desirable for purposes of recordation in the United States Patent and Trademark Office or a Patent Office of any foreign country.

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CLIENT REF.: 2018-OPSE-1021/US

SAMSUNG REP.: GM-201703-009-1-US0

2650360631358600	Signature	ε£	Inventor
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Signature of Inventor:

You chas up Sep 8, 20/9
Chas Up YOO Date

Signature of Inventor:

Se Woong KIM MG Sep. 4.2019
Date

Signature of Inventor:

Soft 4. 2008 Date

Signature of Inventor:

Sept. 4, 2019 Date

Su Min YUN

Signature of Inventor: