

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT6153937

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
DAEHOON KIM	06/09/2020
BONGJIN KIM	06/09/2020
TAEKYOUNG KIM	06/09/2020
JONGHO OH	06/09/2020
HYOUNGJIN LIM	06/09/2020
JUNGJU KIM	06/09/2020
EUNGKUK NAM	06/10/2020
JOOSUNG PARK	06/10/2020
WONJUN HWANG	06/10/2020
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:	16954044
CORRESPONDENCE DATA	
Fax Number:	
<i>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.</i>	
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:	0203-2734
NAME OF SUBMITTER:	MAENG-HO SHIN

SIGNATURE:	/Maeng-Ho SHIN/
DATE SIGNED:	06/15/2020
Total Attachments: 7 source=0203-2734AssignmentAsFiled#page1.tif source=0203-2734AssignmentAsFiled#page2.tif source=0203-2734AssignmentAsFiled#page3.tif source=0203-2734AssignmentAsFiled#page4.tif source=0203-2734AssignmentAsFiled#page5.tif source=0203-2734AssignmentAsFiled#page6.tif source=0203-2734AssignmentAsFiled#page7.tif	

RECORDATION FORM COVER SHEET PATENTS ONLY

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

1. Name of conveying party(ies)

1) Daehoon KIM, 2) Bongjin KIM, 3) Taekyoung KIM,
4) Jongho OH, 5) Hyoungjin LIM, 6) Jungju KIM, 7) Eungkuk NAM,
8) Joosung PARK, and 9) Wonjun HWANG

Additional name(s) of conveying party(ies) attached? Yes No

3. Nature of conveyance/Execution Date(s):

Execution Date(s) June 9, 2020 and June 10, 2020

- Assignment Merger
- Security Agreement Change of Name
- Joint Research Agreement
- Government Interest Assignment
- Executive Order 9424, Confirmatory License
- Other _____

2. Name and address of receiving party(ies)

Name: Samsung Electronics Co., Ltd.

Internal Address: _____

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

4. Application or patent number(s):

A. Patent Application No.(s)
16/954,044

This document is being filed together with a new application.

B. Patent No.(s)

Additional numbers attached? Yes No

5. Name and address to whom correspondence concerning document should be mailed:

Name: Jefferson IP Law, LLP

Internal Address: Maeng-Ho Shin

Street Address: 1130 Connecticut Ave., NW, Suite 420

City: Washington

State: District of Columbia Zip: 20036

Phone Number: 202-293-0804

Fax Number: 202-403-3587

Email Address: usdocketing@jeffersonip.com

6. Total number of applications and patents involved: One

7. Total fee (37 CFR 1.21(h) & 3.41) \$ _____
- Authorized to be charged by credit card
 - Authorized to be charged to deposit account
 - Enclosed
 - None required (government interest not affecting title)

8. Payment Information

a. Credit Card Last 4 Numbers _____
Expiration Date _____

b. Deposit Account Number _____

Authorized User Name _____

9. Signature:

_____/Maeng-Ho SHIN/ Reg. #53,859 _____ June 15, 2020
Signature Date

Maeng-Ho Shin
Name of Person Signing

Total number of pages including cover sheet, attachments, and documents: 7

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

PATENT
REEL: 052941 FRAME: 0037

Assignment

WHEREAS, the following inventors, namely 1) **Daehoon KIM**, 2) **Bongjin KIM**, 3) **Taekyoung KIM**, 4) **Jongho OH**, 5) **Hyoungjin LIM**, 6) **Jungju KIM**, 7) **Eungkuk NAM**, 8) **Joosung PARK**, and 9) **Wonjun HWANG** (hereinafter called "Assignors"), having made or discovered certain new, useful and non-obvious improvements in an invention having a working title of:

BEAM OPERATION METHOD AND DEVICE AT TERMINAL OF BEAMFORMING COMMUNICATION SYSTEM,

for which a United States Patent Application is being filed concurrently herewith or, if not being concurrently filed, was filed on June 15, 2020....., and assigned Serial No. 16/954,044 ; 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 unto 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 Assignee's expense:

- a. to execute:
 - i. 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
 - ii. 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 proceeding relating to said invention, said application and any divisional, continuing, substitute or reissue application thereof;
- c. 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.

DOCKET NO.: 0203-2734
CLIENT REF.: YPF201901-0041/US-PCT
SAMSUNG REF.: GA-201802-004-1-US0

Signature of Inventor:

Daehoon Kim
Daehoon KIM
2020. 6. 9
Date

Signature of Inventor:

Bongjin Kim
Bongjin KIM
2020. 06. 09
Date

Signature of Inventor:

Taekyoung KIM
Taekyoung KIM
Date

Signature of Inventor:

Jongho OH
Jongho OH
2020. 6. 9
Date

Signature of Inventor:

Hyoungjin Lim
Hyoungjin LIM
2020. 06. 09
Date

Signature of Inventor:

Jungju Kim
Jungju KIM
2020. 6. 9
Date

Signature of Inventor:

Eungkuk Nam
Eungkuk NAM
2020. 06. 10
Date

Signature of Inventor:

Joosung Park
Joosung PARK
2020. 6. 10
Date

Signature of Inventor:

Wonjun Hwang
Wonjun HWANG
2020. 6. 10
Date

Assignment

WHEREAS, the following inventors, namely 1) **Daehoon KIM**, 2) **Bongjin KIM**, 3) **Taekyoung KIM**, 4) **Jongho OH**, 5) **Hyoungjin LIM**, 6) **Jungju KIM**, 7) **Eungkuk NAM**, 8) **Joosung PARK**, and 9) **Wonjun HWANG** (hereinafter called "Assignors"), having made or discovered certain new, useful and non-obvious improvements in an invention having a working title of:

BEAM OPERATION METHOD AND DEVICE AT TERMINAL OF BEAMFORMING COMMUNICATION SYSTEM,

for which a United States Patent Application is being filed concurrently herewith or, if not being concurrently filed, was filed on June 15, 2020....., and assigned Serial No. 16/954,044 ; 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 unto 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 Assignee's expense:

- a. to execute:
 - i. 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
 - ii. 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 proceeding relating to said invention, said application and any divisional, continuing, substitute or reissue application thereof;
- c. 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.

Signature of Inventor:

Dachoon KIM

Date

Signature of Inventor:

Bongjin KIM

Date

Signature of Inventor:

Taekyoung KIM

Taekyoung KIM

2020.06.09

Date

Signature of Inventor:

Jongho OH

Date

Signature of Inventor:

Hyoungjin LIM

Date

Signature of Inventor:

Jungju KIM

Date

Signature of Inventor:

Eungkuk NAM

Date

Signature of Inventor:

Joosung PARK

Date

Signature of Inventor:

Wonjun HWANG

Date