# 505209292 11/28/2018

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5256060

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
HYEON-TAEK LIM	11/12/2018
SANG-YOON KIM	11/12/2018
KYUNG-MIN LEE	11/12/2018
CHANG-WOO HAN	11/12/2018
NAM-HOON KIM	11/13/2018
JONG-YOUB RYU	11/13/2018
CHI-YOUN PARK	11/12/2018
JAE-WON LEE	11/12/2018

### **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:	16202932

### **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:	0502-0423
NAME OF SUBMITTER:	JOSHUA H. SGUEO
SIGNATURE:	/Joshua H. SGUEO/
DATE SIGNED:	11/28/2018

PATENT 505209292 REEL: 047610 FRAME: 0612

# Total Attachments: 10 source=0502-0423 Assignment As Filed#page1.tif source=0502-0423 Assignment As Filed#page2.tif source=0502-0423 Assignment As Filed#page3.tif source=0502-0423 Assignment As Filed#page4.tif source=0502-0423 Assignment As Filed#page5.tif source=0502-0423 Assignment As Filed#page6.tif source=0502-0423 Assignment As Filed#page7.tif source=0502-0423 Assignment As Filed#page8.tif source=0502-0423 Assignment As Filed#page8.tif source=0502-0423 Assignment As Filed#page9.tif source=0502-0423 Assignment As Filed#page9.tif

PATENT REEL: 047610 FRAME: 0613

RECORDATION FORM COVER SHEET				
PATENTS 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)	2. Name and address of receiving party(ies)			
1) Hyeon-taek LIM; 2) Sang-yoon KIM; 3) Kyung-min LEE; 4) Chang-woo HAN; 5) Nam-hoon KIM; 6) Jong-youb RYU;	Name: Samsung Electronics Co., Ltd.			
7) Chi-youn PARK; and 8) Jae-won LEE	Internal Address:			
Additional name(s) of conveying party(ies) attached? Yes X No 3. Nature of conveyance/Execution Date(s):	Street Address: 129, Samsung-ro, Yeongtong-gu			
Execution Date(s) November 12 & 13, 2018	Street Address. 129, Samsung-10, Feoligiong-gu			
★ Assignment				
Security Agreement Change of Name	City: Suwon-si, Gyeonggi-do			
Joint Research Agreement	Chata			
Government Interest Assignment	State:			
Executive Order 9424, Confirmatory License	Country: Republic of Korea Zip: 16677			
Other	Additional name(s) & address(es) attached? Yes X No			
16/202,932  Additional numbers att	ached? Yes XNo			
5. Name and address to whom correspondence	6. Total number of applications and patents			
concerning document should be mailed:	involved: One			
Name: Jefferson IP Law, LLP	<b>7. Total fee</b> (37 CFR 1.21(h) & 3.41) \$			
Internal Address: Joshua H. Sgueo	Authorized to be charged by credit card			
-	Authorized to be charged to deposit account			
Street Address: 1130 Connecticut Ave., NW, Suite 420	Enclosed			
	None required (government interest not affecting title)			
City: Washington	8. Payment Information			
State: <u>DC</u> Zip:20036	a. Credit Card Last 4 Numbers Expiration Date			
Phone Number: 202-293-0804				
Fax Number: 202-403-3587	b. Deposit Account Number			
Email Address: usdocketing@jeffersonip.com	Authorized User Name			
9. Signature: /Joshua H. SGUEO/ Reg. No	. 67,154 November 28, 2018			
Signature	Date			
	Total number of pages including cover sheet, attachments, and documents:			
Name of Ferson Signing	, , , , , , , , , , , , , , , , , , , ,			

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

CLIENT REF.: SH-56658-US-DMC SAMSUNG REF.: MD-201704-008-1-US0

# <u>Assignment</u>

WHEREAS, the following inventors, namely 1) Hyeon-tack LIM, 2) Sang-yoon KIM, 3) Kyung-min LEE, 4) Chang-woo HAN, 5) Nam-hoon KIM, 6) Jong-youb RYU, 7) Chi-youn PARK, and 8) Jac-won LEE (hereinafter called "Assignors"), having made or discovered certain new, useful and non-obvious improvements in an invention having a working title of:

# METHOD OF PROVIDING SERVICE BASED ON LOCATION OF SOUND SOURCE AND SPEECH RECOGNITION DEVICE THEREFOR,

for which a United States Patent Application is being filed concurrently herewith or, if not being concurrently filed, was filed on November 28, 2018 and assigned Serial No. 16/202,932; 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 Assignce'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;

1

CLIENT REF.: SH-56658-US-DMC SAMSUNG REF.: MD-201704-008-1-US0

> 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 Assignce 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

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.

CLIENT REF.: SH-56658-US-DMC

SAMSUNG REF.: MD-201704-008-1-US0

Signature of Inventor:	(P)-		11/12/2018
	Hyeon-tack LIM		Date
Signature of Inventor:	Sang-yoon KIM		11/12 /2018 Date
	gang-loon vros		Qaw.
Signature of Inventor:		*	11 /12 /2018
	Kyung-min LEE		Date
Signature of Inventor:			11/12/2018
	Chang-woo HAN		Date
Signature of Inventor:	A.		
	Nam-hoon KIM		Date
Signature of Inventor:	W		
	Jong-youb RYU		Date
Signature of Inventor:	434 - 200 C		. 11/12/26,2
	Chi-youn PARK	***************************************	Date
Signature of Inventor:	Junch		11/12/2410
	Jae-won LEE		Date

CLIENT REF.: SH-56658-US-DMC SAMSUNG REF.: MD-201704-008-1-US0

# <u>Assignment</u>

WHEREAS, the following inventors, namely 1) Hyeon-tack LIM, 2) Sang-yoon KIM, 3) Kyung-min LEE, 4) Chang-woo HAN, 5) Nam-hoon KIM, 6) Jong-youb RYU, 7) Chi-youn PARK, and 8) Jae-won LEE (hereinafter called "Assignors"), having made or discovered certain new, useful and non-obvious improvements in an invention having a working title of:

# METHOD OF PROVIDING SERVICE BASED ON LOCATION OF SOUND SOURCE AND SPEECH RECOGNITION DEVICE THEREFOR,

for which a United States Patent Application is being filed concurrently herewith or, if not being concurrently filed, was filed on November 28, 2018, and assigned Serial No.16/202,932; 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 suc, 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 Assignce'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;

į

CLIENT REF.: SH-56658-US-DMC SAMSUNG REF.: MD-201704-008-1-US0

- 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
- c. 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.

CLIENT REF.: SH-56658-US-DMC

SAMSUNG REF.: MD-201704-008-1-US0

Signature of Inventor:		
	Hyeon-tack LIM	Date
Signature of Inventor:		
	Sang-yoon KIM	Date
Signature of Inventor:		
	Kyung-min LEE	Date
Signature of Inventor;		
	Chang-woo HAN	Date
Signature of Inventor:		11/13 /2018
\$	Nam-hoon KIM	Date
Signature of Inventor:		
	Jong-youb RYU	Date
Signature of Inventor:		
	Chi-youn PARK	Date
Signature of Inventor:		
	Jae-won LEE	Date

CLIENT REF.: SH-56658-US-DMC SAMSUNG REF.: MD-201704-008-1-US0

# Assignment

WHEREAS, the following inventors, namely 1) Hyeon-tack LIM, 2) Sang-yoon KIM, 3) Kyung-min LEE, 4) Chang-woo HAN, 5) Nam-hoon KIM, 6) Jong-youb RYU, 7) Chi-youn PARK, and 8) Jac-won LEE (hereinafter called "Assignors"), having made or discovered certain new, useful and non-obvious improvements in an invention having a working title of:

# METHOD OF PROVIDING SERVICE BASED ON LOCATION OF SOUND SOURCE AND SPEECH RECOGNITION DEVICE THEREFOR,

for which a United States Patent Application is being filed concurrently herewith or, if not being concurrently filed, was filed on November 28, 2018 and assigned Serial No. 16/202,932; 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:

- 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
  - 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:

3

CLIENT REF.: SH-56658-US-DMC

SAMSUNG REF.: MD-201704-008-1-US0

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;

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

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 bereby 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.

2

CLIENT REF.: SH-56658-US-DMC

SAMSUNG REF.: MD-201704-008-1-US0

Signature of Inventor:			
	Hyeon-tack LIM		Date
Signature of Inventor:			
	Sang-yoon KIM		Date
Signature of Inventor:			
	Kyung-min LEE		Date
Signature of Inventor:			
	Chang-woo HAN		Date
Signature of Inventor:			
	Nam-hoon KIM	*	Date
Signature of Inventor:	Jong youb Ryu		11/13/2018
	Jong-youb RYU		Date
Signature of Inventor:			
	Chi-youn PARK		Date
Signature of Inventor:			
	Jac-won LEE		Date

PATENT : **REEL: 047610 FRAME: 0623**