#### 506172786 07/27/2020

### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6219524

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
MIKHAIL VYACHESLAVOVICH POPOV	06/16/2020
STANISLAV LEKSANDROVICH SHTYKOV	06/02/2020
SERGEY ALEKSANDROVICH SHESTAK	06/15/2020
SEONDEOK HWANG	06/08/2020

#### **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:	16765993

#### **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:	0502-0626
NAME OF SUBMITTER:	MAULIN M. PATEL
SIGNATURE:	/Maulin M. PATEL/
DATE SIGNED:	07/27/2020

#### **Total Attachments: 7**

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PATENT 506172786 REEL: 053317 FRAME: 0586

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PATENT REEL: 053317 FRAME: 0587 Form **PTO-1595** (Rev. 07/05) OMB No. 0651-0027 (exp. 6/30/2008)

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)	2. Name and address of receiving party(ies)				
Mikhail Vyacheslavovich POPOV, 2) Stanislav Aleksandrovich     SHTYKOV, 3) Sergey Aleksandrovich SHESTAK and 4) Seondeok	Name: Samsung Electronics Co., Ltd.				
HWANG	Internal Address:				
Additional name(s) of conveying party(ies) attached? Yes 🗸 No					
3. Nature of conveyance/Execution Date(s):	Street Address: 129, Samsung-ro, Yeongtong-gu				
Execution Date(s) 06/02/2020, 06/08/2020, 06/15/2020 and 06/16/2020					
✓ Assignment					
Security Agreement Change of Name	City: Suwon-si, Gyeonggi-do				
Joint Research Agreement	State:				
Government Interest Assignment	Country: Republic of Korea Zip:16677				
Executive Order 9424, Confirmatory License	Zip. 18077				
Other	Additional name(s) & address(es) attached? Yes Vo				
4. Application or patent number(s):  A. Patent Application No.(s)  16/765,993	document is being filed together with a new application.  B. Patent No.(s)				
Additional numbers att	I ached?				
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	7. Total fee (37 CFR 1.21(h) & 3.41) \$				
Internal Address: Maulin M. Patel	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: District of Columbia Zip: 20036	a. Credit Card Last 4 Numbers Expiration Date				
Phone Number: <u>202-293-0804</u>					
Fax Number: <u>202-403-3587</u>	b. Deposit Account Number				
Email Address: usdocketing@jeffersonip.com	Authorized User Name				
9. Signature: /Maulin M. PATEL/ Reg. #56,029 July 27, 2020					
Signature	Date				
Maulin M. Patel	Total number of pages including cover sheet, attachments, and documents:				
Name of Person Signing	sneet, attachments, and documents:				

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-56543-US-DMC SAMSUNG REF.: WR-201707-002-1-US0

#### Assignment

WHEREAS, the following inventors, namely 1) Mikhail Vyacheslavovich POPOV, 2) Stanislav Aleksandrovich SHTYKOV, 3) Sergey Aleksandrovich SHESTAK, and 4) Seondeok HWANG (hereinafter called "Assignors"), having made or discovered certain new, useful and non-obvious improvements in an invention having a working title of:

# HOLOGRAPHIC DISPLAY AND HOLOGRAPHIC IMAGE FORMING METHOD,

for which a United States Patent Application is being filed concurrently herewith or, if not being concurrently filed, was filed on \_\_\_\_\_\_May 21, 2020\_, and assigned Serial No.\_\_\_16/765,993\_\_\_; 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
  - 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;

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> 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;

> 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.

CLIENT REF.: SH-56543-US-DMC

SAMSUNG REF.: WR-201707-002-1-U80

Scondcok HWANG

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Date

CLIENT REF.: SH-56543-US-DMC SAMSUNG REF.: WR-201707-002-1-US0

#### Assignment

WHEREAS, the following inventors, namely 1) Mikhail Vyacheslavovich POPOV, 2) Stanislav Aleksandrovich SHTYKOV, 3) Sergey Aleksandrovich SHESTAK, and 4) Scondcok HWANG (hereinafter called "Assignors"), having made or discovered certain new, useful and non-obvious improvements in an invention having a working title of:

## HOLOGRAPHIC DISPLAY AND HOLOGRAPHIC IMAGE FORMING METHOD,

for which a United States Patent Application is being filed concurrently herewith or, if not being concurrently filed, was filed on \_\_\_\_\_\_May 21, 2020, and assigned Serial No, \_\_16/765,993 \_\_; 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;

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CLIENT REF.: SH-56543-US-DMC SAMSUNG REF.: WR-201707-002-1-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

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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Signature of inventor:	Mikhail Vyacheslavovich POPOV	Date
Signature of Inventor:		
	Stanislav Aleksandrovich SHTYKOV	Date
Signature of Inventor:		
	Sergey Aleksandrovich SHESTAK	Date
Signature of Inventor:		6/08/2020
	Seondeok HWANG	Date