505958901 03/10/2020

PATENT ASSIGNMENT COVER SHEET

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| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|---------------|----------------|
| CHANGKUN LEE | 02/20/2020 |
| WONTAEK SEO | 02/20/2020 |
| GEEYOUNG SUNG | 02/20/2020 |
| BONGSU SHIN | 02/20/2020 |
| HONGSEOK LEE | 02/20/2020 |

RECEIVING PARTY DATA

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

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 16813905 |

CORRESPONDENCE DATA

Fax Number: (202)693-7060

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: 202-293-7060

Email: sughrue@sughrue.com, dbutler@sughrue.com

Correspondent Name: SUGHRUE MION, PLLC

Address Line 1: 2000 PENNSYLVANIA AVENUE, N.W.

Address Line 2: 8TH FLOOR

Address Line 4: WASHINGTON, D.C. 20006

| ATTORNEY DOCKET NUMBER: | Q252359 | |
|-------------------------|--|--|
| NAME OF SUBMITTER: | DENNIS E BUTLER - TEAMS | |
| SIGNATURE: | /Dennis Butler/ | |
| DATE SIGNED: | 03/10/2020 | |
| | This document serves as an Oath/Declaration (37 CFR 1.63). | |

PATENT REEL: 052063 FRAME: 0188

Total Attachments: 4

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PATENT REEL: 052063 FRAME: 0189

Docket No.: Q252359 SAIT Ref.: RA2019040011US0 Only After Sept 16, 2012

ASSIGNMENT WITH DECLARATION FOR PATENT APPLICATION (37 CFR 1.63)

특허 출원 관련 양도 및 선언(연방규칙집 제 37조 1.63 항)

Korean Language Assignment with Declaration

| 이하 양도인으로 지칭되는 하기 서명 발명자인 본인(들)은 아래에 명시된출원에서서술한특정개선을 발명하였으므로 그리고 | Whereas, I/We, the undersigned inventor(s) hereinafter called assignor(s), have invented certain improvements described in the application identified below; and |
|---|---|
| 에 소계한 (당수인)는(은) 출원 및 발명의 그리고 이에 따라 획득될 일체의 미국 특허에 대한 모든 권리, 소유권 및 이권을 취득하기를 원하므로, | Whereas, SAMSUNG ELECTRONICS CO., LTD. of 129. Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Republic of Korea, (assignee), desires to acquire the entire right, title, and interest in the application and invention, and to any United States patents to be obtained therefor; |
| 이제대가를위한그수평물인정합니다. | Now therefore, for valuable consideration, receipt whereof is hereby acknowledged, |
| 상기 양도인인 본인(돌)은 상기 명칭의 양수인, 그 승제자 및 그 양수인에게 모는 분활과 그 연속을 포함하여 미국 용으로 공개된 출원과 발명 그리고 그에 대해 승인될 수 있는 미국의 모든 특허증시와 미합증국 코드 제 35 장 제\$119 항에 의거한 우선권 청구권과 피거의 손해에 대한 소송권을 포함한, 개정된 파리 국제협약(1883)에 의거한 우선권을 포함한모든 그 재발행과 모든 외국에 대한 전체권리, 소유권 및 이권을 판매, 양도 및 이권하며 그리고 본인(돌)은 출원서에 제시된 발명에 대해 승인된 일제의 특허증서를 양수인, 그 승계자 또는 그 양수인에게 발급하도록 미국 특허청장에게 요청하는 바이며 또한 본인(돌)은 양수인이 본 발명에 대한 외국 특허증서를 신청할 수 있다는데 동의하며, 본인(돌)은 양수인의 요청할 경우 미국 및 외국출원과 관련하여 양수인이 필요하다고 생각하는 모든 서류를 더 이상의 보수없이 서명날인할 것입니다. | I/We, the above named assignor(s), hereby sell, assign and transfer to the above named assignee, its successors and assigns, the entire right, title and interest in the application and the invention disclosed therein for the United States of America, including all divisions, and continuations thereof, and all Letters Patent of the United States that may be granted thereon, and all reissues thereof, and all countries foreign thereto, including rights of priority under the International Convention of Paris (1883) as amended, including the right to claim priority under 35 USC 119 and the right to sue for past damages, and I/we request the Director of the U.S. Patent and Trademark Office to issue any Letters Patent granted upon the invention set forth in the application to the assignee, its successors and assigns; and I/we hereby agree that the assignee may apply for foreign Letters Patent on the invention and I/we will execute without further consideration all papers decined necessary by the assignee in connection with the United States and foreign applications when called upon to do so by the assignee. |
| (공인은 기록을 위해 요구되지는 않지만 미합증국 코드 제 25 장 제\$261 항에 의거서명날인에 대한일용의증거입니다) | (Legalization not required for recording but is prima facie evidence of execution under 35 USC 261) |
| 본인은아래성명의발명자로서다음과길이선인합니다. | As the below named inventor, I hereby declare that: |
| 본양도및선언서는다음사항을위한것입니다: | This assignment with declaration is directed to: |
| □ 利益學和正午 | The attached application, or |
| □ 미합중국중원또는RT <u>국제중위권호:</u> 출원항 | United States Application or PCT International Application Number filed on |
| 본출원의제목은다음과길습니다. | The application is entitled; |
| | MULTI-IMAGE DISPLAY APPARATUS USING HOLOGRAPHIC PROJECTION |
| | |

PATENT REEL: 052063 FRAME: 0190

Korean Language Assignment with Declaration

위에 표시된 출원은 본인이 신청하였거나 또는 신청하도록 허기를 받았습니다.

본인은, 본인이 본 총원에서 청구된 발명의 원 발명자 또는 원 공동 발명자라고 말습니다.

본인은 본 양도 및 선언서 제출과 관련된 출원의 내용을 검토하였으며 아울리 이래합니다.

본인은 연방 규정 코드 제 37 중 제 1.56 항에 규정된 비에 따라, 특허성의 관단에 중요한 본인이 아는 모든 정보를 특허성에 공개할 의무가 있음을 일고 있습니다.

본 양도 및 선언서 내에 의도적 하위 진술이 있을 경우 미합증국 코드 제 18 장의 1001 항에 의거 별금이나 5 년 이하의 경역 또는 두 가지 처벌을모두받을 수 있음을 인정합니다. The above identified application was made or was authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I have reviewed and understand the contents of the application for which this assignment with declaration is being submitted.

I am aware of the duty to disclose to the Office all information known to me to be material to patentability as defined in 37 CFR 1.56.

I hereby acknowledge that any willful false statement made in this assignment with declaration is punishable under 18 USC 1001 by fine or imprisonment of not more than live (5) years, or both.

STATEMENT OF ACCURATE TRANSLATION IN ACCORDANCE WITH 37 CFR 1.69(b):

The assignment with declaration is an accurate translation of the corresponding English language assignment with declaration.

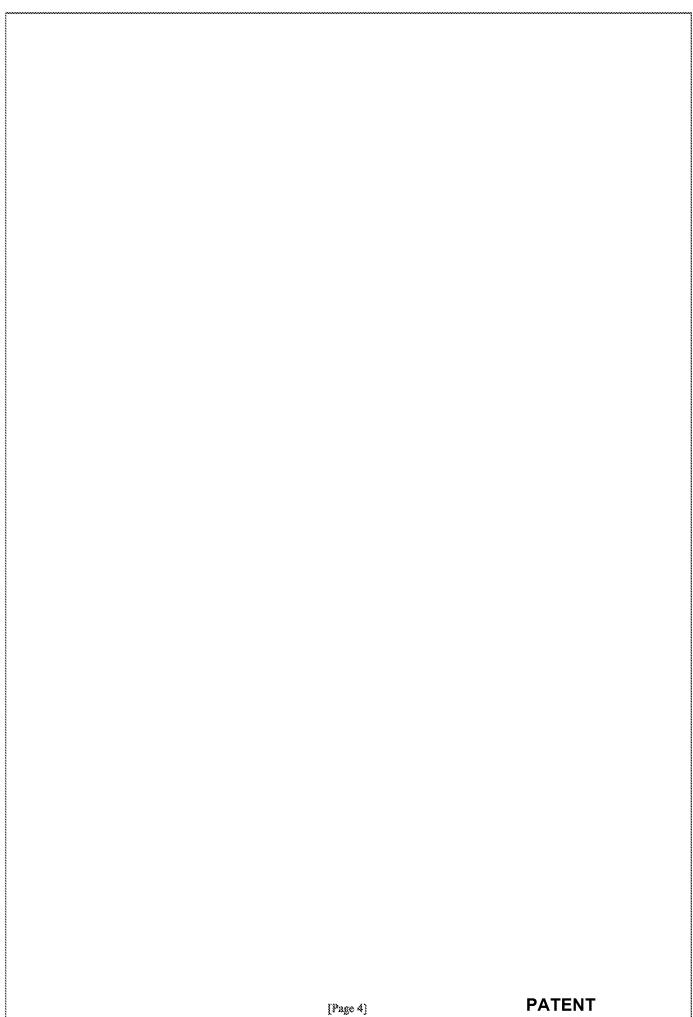
Signature

Date

March 17, 2014

REEL: 052063 FRAME: 0191

| NAME OF SOLE OR FIRST INVENTOR: (3독 육은 최고 발전부터 설명 | | |
|---|---|--|
| Given Name (first and middle [if any]) 대표(전략은 전략) Changkun | Family Name or Sumano (ESS) LEE | |
| teventor's signature \$2000 ASS | Date (SE) February 20, 2020 | |
| Residence: 24744 Second, Republic of Korea | | |
| Mailing Address: c/o Samsung Advanced Institute of Technology, I 空間手体 Republic of Korea | 30, Samsung-10, Yeonglong-gu, Suwon-si, Gyeonggi-do, 16678, | |
| NAME OF SECOND INVENTOR: \$280 \$3000 638 | | |
| Given Name (first and middle (if any)) ○劉公明(本朝) Womack | Family Name or Surname SEQ | |
| Inventor's signature 翻如图A图 | Ωate gg; February 20, 2020 | |
| Residence: PSS Yongin-si, Republic of Kores | | |
| Mailing Address: c/o Samsung Advanced Institute of Technology, 1 우편주소 Republic of Korea | 30, Samsung-to, Yeongtong-ga, Suwon-si, Gyeonggi-do, 16678, | |
| NAME OF THIRD INVENTOR: 세계 정확인 설립 | | |
| Given Name (first and middle [if any]) 이왕 성식는 전화 Geeyoung | Panily Name or Sumane 智姓) SUNG | |
| Inventor's signature \$190781 MB | 0ste gg: February 20, 2020 | |
| Residence: 2 ^{PFX} Dacgu, Republic of Korea | | |
| Mailing Address: c/o Samsung Advanced Institute of Technology, 1 유민주요 Republic of Korea | 30, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16678, | |
| NAME OF FOURTH INVENTOR: | * * | |
| Given Name (first and middle (if any)) 『親母性 程制 Bongsu | Family Name or Surname (基础) SHIN | |
| Inventor's signature WWELHE | Date grap February 20, 2020 | |
| Residence: 2458 Seoul, Republic of Korea | | |
| Mailing Address: c/o Samsung Advanced Institute of Technology, 130, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16678, 역원주소 Republic of Korea | | |
| NAME OF FIFTH INVENTOR: CAMPA WINE: SS | | |
| Given Name (first and middle (if anyl) O脈(如是 項) Hongseok | Family Name or Surname 性質) XXE | |
| Inventor's signature 1884 188 (Le Hong Sea L | 0395 SW) February 20, 2020 | |
| Residence: 「 ⁷ 持料 Seoul, Republic of Korea | | |
| Mailing Address: c/o Samsung Advanced Institute of Technology, 1 우편주요 Republic of Korea | 30, Samsung-ro, Yeongiong-gu, Suwon-si, Gyeonggi-do, 16678, | |



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