### 505542573 06/25/2019

# PATENT ASSIGNMENT COVER SHEET

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

#### **CONVEYING PARTY DATA**

| Name          | Execution Date |
|---------------|----------------|
| TINGJUN XU    | 06/10/2019     |
| GUOCHENG SHAO | 06/10/2019     |
| LEI YU        | 06/15/2019     |
| OVE LYNGNES   | 06/10/2019     |
| SUNGGU KANG   | 06/11/2019     |
| TIANBO SUN    | 06/09/2019     |
| XIANWEI ZHAO  | 06/12/2019     |
| XIAOYONG FU   | 06/11/2019     |
| XINGXING CAI  | 06/10/2019     |

#### **RECEIVING PARTY DATA**

| Name:           | APPLE INC.         |
|-----------------|--------------------|
| Street Address: | ONE APPLE PARK WAY |
| City:           | CUPERTINO          |
| State/Country:  | CALIFORNIA         |
| Postal Code:    | 95014              |

#### **PROPERTY NUMBERS Total: 1**

| Property Type       | Number   |
|---------------------|----------|
| Application Number: | 16450813 |

#### **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.

**Email:** kfowler@treyzlawgroup.com

Correspondent Name: G. VICTOR TREYZ

Address Line 1: 15279 N. SCOTTSDALE RD.

Address Line 2: SUITE 250

Address Line 4: SCOTTSDALE, ARIZONA 85254

ATTORNEY DOCKET NUMBER: P37750US1

NAME OF SUBMITTER: KIERSTIN FOWLER

PATENT 505542573 REEL: 049578 FRAME: 0638

| SIGNATURE:                             | /Kierstin Fowler/ |  |
|--|-------------------|--|
| DATE SIGNED:                           | 06/25/2019        |  |
| Total Attachments: 11                  |                   |  |
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PATENT REEL: 049578 FRAME: 0639

## ASSIGNMENT

WHEREAS, We, Tingjun Xu, Guocheng Shao, Lei Yu, Ove Lyngnes, Sunggu Kang, Tianbo Sun, Xianwei Zhao, Xiaoyong Fu, and Xingxing Cai, residing respectively in San Jose, California, Campbell, California, Shanghai, China, Carmel Valley, California, San Jose, California, Sunnyvale, California, Fremont, California, Cupertino, California, and Santa Clara, California, have made an invention entitled:

ELECTRONIC DEVICES WITH LIGHT SENSOR WAVEGUIDES and

(1) are about to make an application for United States
Letters Patent therefor, the same having been executed by
us on even date herewith

OR

| (2) have made an application for United States Letters      |
|---|
| Patent therefor, the same having been filed on              |
| () under Application No. (), in                             |
| connection with which we hereby authorize and request the   |
| assignee's attorneys associated with Customer Number to     |
| insert within the foregoing parentheses the filing date and |
| Application No. of said application when known; and         |

WHEREAS, APPLE INC., a corporation organized and existing under the laws of the State of California and having an address of One Apple Park Way, Cupertino, California 95014, is desirous of acquiring the entire interest in said invention, said United States patent

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application and in any Letters Patent which may issue thereon;

NOW, THEREFORE, be it known that for and in consideration of the sum of One Dollar (\$1.00) paid, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we do hereby sell, assign and transfer unto the said APPLE INC., its successors, assigns and legal representatives, all right, title and interest in and to said invention and any improvements thereon for all countries of the world, and in and to said United States patent application, including any continuations, continuations-in-part and divisions thereof, and any substitute applications therefor, and including the right to claim priority under the International Convention based on said patent application, and any patent which may issue thereon, and any reissues of the same; and all right, title and interest in and to every patent application filed or to be filed on said invention in any other country, including renewals, revivals, continuations and divisions thereof, and any substitute applications therefor, and any and all patents which may issue thereon, and any reissues and extensions of the same:

and we hereby authorize and request competent authorities to grant and issue any and all patents on said invention to the said APPLE INC. as the assignee of the entire interest therein; and we further agree to execute upon request of the assignee such additional documents, if any, as are necessary and proper to secure patent protection on said invention throughout all countries of the world, and to otherwise give full effect to and perfect the rights of the assignee under this Assignment.

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IN TESTIMONY WHEREOF, we have hereunto signed our names on the dates indicated hereinafter.

Date

Tingjun Xu

IN TESTIMONY WHEREOF, we have hereunto signed our names on the dates indicated hereinafter.

Date

Guocheng Shao

IN TESTIMONY WHEREOF, we have hereunto signed our names on the dates indicated hereinafter.

Date

Lei 📆

IN TESTIMONY WHEREOF, we have hereunto signed our names on the dates indicated hereinafter.

6/10/2019 Date

Ove Lyngnes Ove Lyngnes

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IN TESTIMONY WHEREOF, we have hereunto signed our names on the dates indicated hereinafter.

6/11/2019 Date

Sunggu

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IN TESTIMONY WHEREOF, we have hereunto signed our names on the dates indicated hereinafter.

2019-06-09

Date.

Tianbo Sun

IN TESTIMONY WHEREOF, we have hereunto signed our names on the dates indicated hereinafter.

Date

X anwei Zhao

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IN TESTIMONY WHEREOF, we have hereunto signed our names on the dates indicated hereinafter.

06/11/2019 Date Xiaoyang Fu

IN TESTIMONY WHEREOF, we have hereunto signed our names on the dates indicated hereinafter.

Date

Xingxing Cai

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