### 506046100 05/05/2020

# PATENT ASSIGNMENT COVER SHEET

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

#### **CONVEYING PARTY DATA**

| Name                 | Execution Date |
|----------------------|----------------|
| HSIN-YU CHEN         | 10/14/2019     |
| YEN-CHIANG LIU       | 10/14/2019     |
| JIUN-JIE CHIOU       | 10/14/2019     |
| JIA-SYUAN LI         | 10/14/2019     |
| YOU-CHENG JHANG      | 10/14/2019     |
| SHIN-HUA CHEN        | 10/14/2019     |
| LAVANYA SANAGAVARAPU | 10/14/2019     |
| HAN-ZONG PAN         | 10/14/2019     |
| CHUN-PENG LI         | 10/14/2019     |
| CHIA-CHUN HUNG       | 10/14/2019     |
| CHING-HSIANG HU      | 10/14/2019     |
| WEI-DING WU          | 10/14/2019     |
| JUI-CHUN WENG        | 10/14/2019     |
| JI-HONG CHIANG       | 10/14/2019     |
| HSI-CHENG HSU        | 10/14/2019     |

#### RECEIVING PARTY DATA

| Name:           | TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD. |  |
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| City:           | HSIN-CHU                                     |  |
| State/Country:  | TAIWAN                                       |  |
| Postal Code:    | 300-77                                       |  |

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

| Property Type       | Number   |
|---------------------|----------|
| Application Number: | 16656290 |

#### **CORRESPONDENCE DATA**

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PATENT

506046100 REEL: 052576 FRAME: 0954

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| NAME OF SUBMITTER:      | RICHARD C. KIM            |  |
| SIGNATURE:              | /Richard C. Kim/          |  |
| DATE SIGNED:            | 05/05/2020                |  |

#### **Total Attachments: 5**

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> PATENT REEL: 052576 FRAME: 0955

#### ATTORNEY DOCKET NO.: P20183355US00/N1085-02039

#### ASSIGNMENT AND AGREEMENT

For value received, we, Hsin-Yu CHEN, Yen-Chiang LIU, Jiun-Jie CHIOU, Jia-Syuan LI, You-Cheng JHANG, Shin-Hua CHEN, Lavanya SANAGAVARAPU, Han-Zong PAN, Chun-Peng LI, Chia-Chun HUNG, Ching-Hsiang HU, Wei-Ding WU, Jui-Chun WENG, Ji-Hong CHIANG, and Hsi-Cheng HSU, hereby transfer to Taiwan Semiconductor Manufacturing Co., Ltd., with its principal place of business located at No. 8, Li-Hsin Road 6, Hsinchu Science Park, Hsin-Chu 300-77, Taiwan, Republic of China, and its successors, assigns and legal representatives, the entire right, title and interest, for the United States of America, in and to certain inventions related to AMULTIFUNCTIONAL COLLIMATOR FOR CONTACT IMAGE SENSORS, described in non-provisional patent application S.N. \_\_\_\_\_ filed \_\_\_\_\_, and under any and all Letters Patent and any divisions, continuations, continuations-in-part, reexamination certificates. reissues, and extensions thereof, or claiming priority therefrom that may be granted in the United States for said inventions; and we also concurrently hereby sell, assign and transfer to Taiwan Semiconductor Manufacturing Co., Ltd. the entire right, title and interest in and to said inventions for all countries foreign to the United States, including all rights of priority arising from the application aforesaid, and all the rights and privileges under any and all forms of protection, including Letters Patent, that may be granted in said countries foreign to the United States for said inventions.

We authorize Taiwan Semiconductor Manufacturing Co., Ltd. to make application for such protection in its own name and maintain such protection in any and all countries foreign to the United States, and to invoke and claim for any application for patent or other form of protection for said inventions, without further authorization from us, any and all benefits, including the right of priority provided by any and all treaties, conventions, or agreements.

We hereby consent that a copy of this assignment shall be deemed a full legal and formal equivalent of any document which may be required in any country in proof of the right of Taiwan Semiconductor Manufacturing Co., Ltd. to apply for patent or other form of protection for said inventions and to claim the aforesaid benefit of the right of priority.

We request that any and all patents for said inventions be issued to Taiwan Semiconductor Manufacturing Co., Ltd. in the United States and in all countries foreign to the United States, or to such nominees as Taiwan Semiconductor Manufacturing Co., Ltd. may designate.

### ATTORNEY DOCKET NO.: P20183355US00/N1085-02039

We agree that, when requested, we shall, without charge to Taiwan Semiconductor Manufacturing Co., Ltd. but at its expense, sign all papers, and do all acts which may be necessary, desirable or convenient in connection with said applications, patents, or other forms of protection.

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**RECORDED: 05/05/2020** 

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