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PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
TSUNG-SHENG KUO	03/21/2020
YI-FAM SHIU	03/09/2020
EASON CHEN	03/09/2020
YANG-ANN CHU	03/09/2020
JIUN-RONG PAI	03/09/2020

RECEIVING PARTY DATA

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State/Country:	TAIWAN	
Postal Code:	300-77	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16588182

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ATTORNEY DOCKET NUMBER:	P20181098US00/N1085-01964	
NAME OF SUBMITTER:	RICHARD C. KIM	
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DATE SIGNED:	04/02/2020	
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Total Attachments: 3

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> PATENT REEL: 052301 FRAME: 0394

ATTORNEY DOCKET NO.: P20181098US00/N1085-01964

ASSIGNMENT AND AGREEMENT

For value received, we, Tsung-Sheng KUO, Yi-Fam SHIU, Eason CHEN, Yang-
Ann CHU, and Jiun-Rong PAI, 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 SYSTEMS AND METHODS FOR
AUTOMATED PROCESSING PORTS, 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.

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PATENT REEL: 052301 FRAME: 0395

ATTORNEY DOCKET NO.: P20181098US00/N1085-01964

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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ATTORNEY DOCKET NO.: P20181098US00/N1085-01964

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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