

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT6195652

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
SZU-CHI YANG	03/06/2020
ALLEN CHIEN	03/06/2020
CHENG-TING DING	03/06/2020
CHIEN-CHIH LIN	03/06/2020
CHIEN-CHIH LEE	03/06/2020
SHIH-HAO LIN	03/06/2020
TSUNG-HUNG LEE	03/10/2020
CHIH CHIEH YEH	03/06/2020
PO-KAI HSIAO	03/06/2020
TSAI-YU HUANG	03/06/2020
RECEIVING PARTY DATA	
Name:	TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.
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Internal Address:	HSINCHU SCIENCE PARK
City:	HSINCHU
State/Country:	TAIWAN
Postal Code:	300-78
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	16926528
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PATENT

ATTORNEY DOCKET NUMBER:	2019-2311/24061.4052US01
NAME OF SUBMITTER:	MARIA TEDESCO
SIGNATURE:	/Maria Tedesco/
DATE SIGNED:	07/10/2020
Total Attachments: 4 source=Assignment#page1.tif source=Assignment#page2.tif source=Assignment#page3.tif source=Assignment#page4.tif	

77 (S)

Docket No.: P20192311US00/ 24061.4052US01
Customer No.: 000042717

ASSIGNMENT

WHEREAS, we,

- | | | | |
|------|------------------|----|---------------------------------|
| (1) | Szu-Chi Yang | of | Hsinchu, Taiwan (R.O.C) |
| (2) | Allen Chien | of | Hsinchu, Taiwan (R.O.C) |
| (3) | Cheng- Ting Ding | of | Hsinchu, Taiwan (R.O.C) |
| (4) | Chien-Chih Lin | of | Hsinchu, Taiwan (R.O.C) |
| (5) | Chien-Chih Lee | of | New Taipei City, Taiwan (R.O.C) |
| (6) | Shih-Hao Lin | of | Hsinchu, Taiwan (R.O.C) |
| (7) | Tsung-Hung Lee | of | Hsinchu City, Taiwan (R.O.C) |
| (8) | Chih Chieh Yeh | of | Taipei City, Taiwan (R.O.C) |
| (9) | Po-Kai Hsiao | of | Changhua County, Taiwan (R.O.C) |
| (10) | Tsai-Yu Huang | of | Hsinchu, Taiwan (R.O.C) |

have invented certain improvements in

INTERFACE TRAP CHARGE DENSITY REDUCTION

for which we have executed an application for Letters Patent of the United States of America,

 X of even date filed herewith; and
 filed on and assigned application number ; and

WHEREAS, we authorize the attorney of record to update this document to include Patent Office information as deemed necessary (i.e., filing date, serial number, etc.);

WHEREAS, Taiwan Semiconductor Manufacturing Co., Ltd., ("TSMC"), 8, Li-Hsin Rd. 6, Hsinchu Science Park, Hsinchu, Taiwan 300-78, Republic of China, is desirous of obtaining the entire right, title, and interest in, to and under the said invention and the said application in the United States of America and in any and all countries foreign thereto;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and other good and valuable consideration, we have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said TSMC, its successors, legal representatives, and assigns, the entire right, title, and interest in, to and under the said invention, and the said application, and all divisional, renewal, substitutional, and continuing applications thereof, and all Letters Patent of the United States of America which may be granted thereon and all reissues and extensions thereof, and all applications for Letters Patent which may be filed for said invention in any country or countries foreign to the United States of America, and all extensions, renewals, and reissues thereof, and all

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prior patents and patent applications from which a filing priority of the above-described patent application may be obtained, including the right to collect past damages; and we hereby authorize and request the Commissioner of Patents of the United States of America, and any official of any country or countries foreign to the United States of America, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said invention to the said TSMC, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

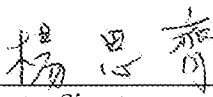
AND WE HEREBY covenant that we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith.

AND WE HEREBY further covenant and agree that we will communicate to said TSMC, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceedings, sign all lawful papers, execute all divisional, renewal, substitutional, continuing, and reissue applications, make all rightful declarations and/or oaths and generally do everything possible to aid the said TSMC, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for said invention in all countries.

Inventor Name: Szu-Chi Yang

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Dated: 2020.03.06

 Szu-Chi Yang
Inventor Signature

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Dated: 2020.03.06

 Allen Chien
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Dated: 2020.03.06

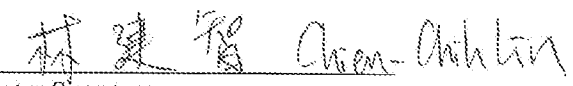
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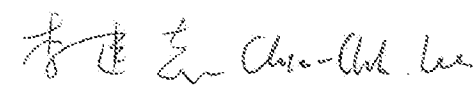
Dated: 2020.3.6


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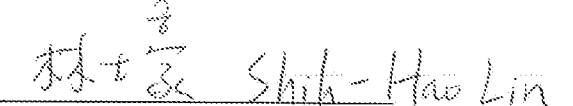
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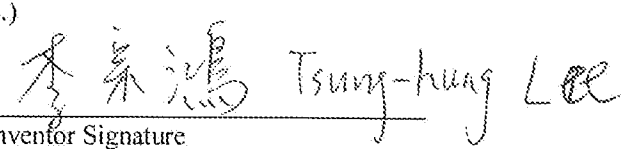
Dated: 2020.3.6


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Inventor Name: Tsung-Hung Lee

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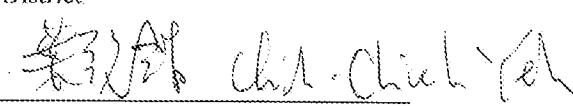
Dated: 2020.3.10


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Dated: 2020.3.6

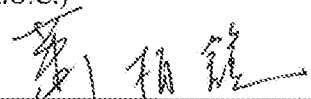

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Docket No.: P20192311US00/ 24061.4052US01
Customer No.: 000042717

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Dated: 3/6/2020

 Po-kai Hsiao
Inventor Signature

Inventor Name: Tsai-Yu Huang

Residence Address: 8, Li-Hsin Rd. 6, Hsinchu Science Park
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Dated: 3/6/2020


Inventor Signature