

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT5280577

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
YEN-TING CHEN	11/15/2018
YI-HSIU LIU	11/16/2018
WEI-YANG LEE	11/15/2018
FENG-CHENG YANG	11/16/2018
YEN-MING CHEN	11/15/2018
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PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	16218330
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NAME OF SUBMITTER:	MARCY OGADO
SIGNATURE:	/Marcy Ogado/
DATE SIGNED:	12/12/2018

Total Attachments: 3

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PATENT

REEL: 047759 FRAME: 0824

Docket No.: P20181240US00/ 24061.3777US01
Customer No.: 000042717

ASSIGNMENT

WHEREAS, we,

- | | | | |
|-----|-----------------|----|----------------------------------|
| (1) | Yen-Ting Chen | of | Taichung City, Taiwan (R.O.C.) |
| (2) | Yi-Hsiu Liu | of | Taipei, Taiwan (R.O.C.) |
| (3) | Wei-Yang Lee | of | Taipei City, Taiwan (R.O.C.) |
| (4) | Feng-Cheng Yang | of | Hsinchu County, Taiwan (R.O.C.) |
| (5) | Yen-Ming Chen | of | Hsin-Chu County, Taiwan (R.O.C.) |

have invented certain improvements in

METHODS OF FORMING METAL GATE SPACER

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 12/12/2018 and assigned application number 16/218,330; 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 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.

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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: Yen-Ting Chen

Residence Address: Taichung City, Taiwan (R.O.C.)

Dated: 11/15, 2018

Yen-Ting Chen
Inventor Signature

Inventor Name: Yi-Hsiu Liu

Residence Address: Taipei, Taiwan (R.O.C.)

Dated: 11/16, 2018

Yi-Hsiu Liu
Inventor Signature

Inventor Name: Wei-Yang Lee

Residence Address: Taipei City, Taiwan (R.O.C.)

Dated: 2018/11/15

Wei-Yang Lee
Inventor Signature

Inventor Name: Feng-Cheng Yang

Residence Address: Hsinchu County, Taiwan (R.O.C.)

Dated: 2018/11/16

Feng-Cheng Yang
Inventor Signature

Docket No.: P20181240US00/ 24061.3777US01
Customer No.: 000042717

Inventor Name: Yen-Ming Chen

Residence Address: Hsin-Chu County, Taiwan (R.O.C.)

Dated: 11/15 '18

Yen-Ming Chen.
Inventor Signature
