506115163 06/19/2020

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT6161886

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

CONVEYING PARTY DATA

| Name | Execution Date |
|--------------|----------------|
| MENG-HAN LIN | 05/18/2018 |
| TE-HSIN CHIU | 05/17/2018 |
| WEI CHENG WU | 05/17/2018 |

RECEIVING PARTY DATA

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| City: | HSIN-CHU |
| State/Country: | TAIWAN |
| Postal Code: | 300-77 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 16906031 |

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| ATTORNEY DOCKET NUMBER: | TSMCP845USC | |
|-------------------------|----------------------|--|
| NAME OF SUBMITTER: | JAMES R. POTASHNIK | |
| SIGNATURE: | /James R. Potashnik/ | |
| DATE SIGNED: | 06/19/2020 | |

Total Attachments: 5

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PATENT ASSIGNMENT

PARTIES TO THE ASSIGNMENT

Assignor(s): Meng-Han Lin

Assignor(s): Te-Hsin Chiu

Assignor(s): Wei Cheng Wu

Assignee:

Taiwan Semiconductor Manufacturing Co., Ltd. No. 8, Li-Hsin Rd. 6, Hsin-Chu Science Park Hsin-Chu, Taiwan 300-77 Republic of China

<u>AGREEMENT</u>

WHEREAS, ASSIGNOR(S) (listed above) are inventor(s) of an invention entitled

"METAL GATE MODULATION TO IMPROVE KINK EFFECT" for which:

a non-provisional application for United States Letters Patent:

| \boxtimes | was executed on even date preparatory to filing (each inventor should sign this |
|-------------|---|
| | Assignment on the same day as he/she signs the Declaration); or |
| | was filed on and accorded U.S. Serial No; or |
| | I hereby authorize and request my attorney associated with Customer No. |
| | 107476, to insert on the designated lines below the filing date and application |
| | number of said application when known: |
| | U.S. Serial No. |
| | filed on |

WHEREAS, ASSIGNEE (listed above), a corporation of the Republic of China is desirous of acquiring the entire right, title and interest in and to the invention and in and to Page 1 of 5

any letters patent that may be granted therefore in the United States and in any and all

foreign countries;

NOW, THEREFORE, in exchange for good and valuable consideration, the receipt of

which is hereby acknowledged, ASSIGNOR(S) hereby sell, assign and transfer unto

ASSIGNEE its successors and assigns, the entire right, title and interest in and to said

invention and improvements, said application and any and all letters patent which may be

granted for said invention in the United States of America and its territorial possessions and

in any and all foreign countries, and in any and all divisions, reissues, re-examinations and

continuations thereof, including the right to file foreign applications directly in the name of

ASSIGNEE and to claim priority rights deriving from said United States application to which

said foreign applications are entitled by virtue of international convention, treaty or otherwise,

said invention, application and all letters patent on said invention to be held and enjoyed by

ASSIGNEE and its successors and assigns for their use and benefit and of their successors

and assigns as fully and entirely as the same would have been held and enjoyed by

ASSIGNOR(S) had this assignment, transfer and sale not been made. ASSIGNOR(S)

hereby authorize and request the Commissioner of Patents and Trademarks to issue all

letters patent on said invention to ASSIGNEE. ASSIGNOR(S) agree to execute all

instruments and documents required for the making and prosecution of applications for

United States and foreign letters patent on said invention, for litigation regarding said letters

patent, or for the purpose of protecting title to said invention or letters patent therefore.

Page 2 of 5

TSMC Docket No. P20171507US00 Docket No. TSMCP845US

Date

Name

1st Inventor Meng-Han Lin

TSMC Docket No. P20171507US00 Docket No. TSMCP845US

Date

Name 2nd Inventor Te-Hsin Chiu

TSMC Docket No. P20171507US00 Docket No. TSMCP845US

2018.5.17 Date

Name 3rd Inventor Wei Cheng/

Page 5 of 5