

PATENT ASSIGNMENT COVER SHEET

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 Stylesheet Version v1.2

EPAS ID: PAT4426391

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| SUBMISSION TYPE: | NEW ASSIGNMENT |
| NATURE OF CONVEYANCE: | ASSIGNMENT |
| CONVEYING PARTY DATA | |
| Name | Execution Date |
| SANDEEP KUMAR GOEL | 04/13/2017 |
| STANLEY JOHN | 04/17/2017 |
| JI-JAN CHEN | 04/13/2017 |
| YUN-HAN LEE | 05/18/2017 |
| RECEIVING PARTY DATA | |
| Name: | TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD. |
| Street Address: | NO. 8, LI-HSIN RD. 6 |
| Internal Address: | SCIENCE-BASED INDUSTRIAL PARK |
| City: | HSINCHU |
| State/Country: | TAIWAN |
| Postal Code: | 300 |
| PROPERTY NUMBERS Total: 1 | |
| Property Type | Number |
| Application Number: | 15602365 |
| CORRESPONDENCE DATA | |
| Fax Number: | (404)521-4286 |
| <i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i> | |
| Phone: | 678-483-8899 |
| Email: | gina.silverio@mqlaw.com |
| Correspondent Name: | MCCLURE, QUALEY & RODACK, LLP |
| Address Line 1: | 3100 INTERSTATE NORTH CIRCLE |
| Address Line 2: | SUITE 150 |
| Address Line 4: | ATLANTA, GEORGIA 30339 |
| ATTORNEY DOCKET NUMBER: | 252028-2160 |
| NAME OF SUBMITTER: | DANIEL R. MCCLURE |
| SIGNATURE: | /Daniel R. McClure/ |
| DATE SIGNED: | 05/23/2017 |
| Total Attachments: 5 | |

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PATENT

REEL: 042472 FRAME: 0746

NP-19981-US/P20161222US00

Inventor(s)-to-Assignee

ASSIGNMENT

This assignment agreement is applicable to an invention entitled (Invention Title) _____
DEVICE AND METHOD FOR ROBUSTNESS VERIFICATION

The PATENT RIGHTS referred to in this agreement are:

(check one) ☒ a patent application for this invention, executed by the ASSIGNOR(S)
 concurrently with this assignment.

☐ U.S. patent application Serial No. _____, filed _____

☐ a U.S. patent application based on PCT International Application
 No. _____ filed on (date) _____ (U.S. patent application
 Serial No. _____, if known).

☐ U.S. patent No. _____, issued _____.

The PATENT RIGHTS also include all divisions, reissues, continuations and extensions of
 the patents and patent applications identified above.

The PATENT RIGHTS assigned under this agreement are:

(check one) ☒ U.S. patent rights only.

☐ Worldwide patent rights. In this case, the assignee shall have the right to
 claim the benefit of the filing date of any U.S. or foreign patent application
 for this invention.

The ASSIGNOR(S) referred to in this agreement is (or are) the inventor(s) whose signatures
 appear on page 2 of this Assignment and any Supplemental Sheet(s).

The ASSIGNEE referred to in this agreement is:

(Name of Assignee) TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.

(Address) NO.8, LI-HSIN RD.6, SCIENCE-BASED INDUSTRIAL PARK, HSINCHU,
TAIWAN 300, R.O.C.

The ASSIGNEE is:

(check one) ☐ An individual.

☐ A Partnership.

☒ A Corporation of TAIWAN, R.O.C. (specify state or country)

☐ (other) _____

The ASSIGNOR(S), in consideration of \$10.00 paid by the ASSIGNEE, and other good and
 valuable consideration, receipt of which is acknowledged, hereby assign(s) the following
 rights to the ASSIGNEE, its successors and assigns:

the full and exclusive right to the invention;

the entire right, title and interest in and to the PATENT RIGHTS;

the right to sue and recover for any past infringement; and

the right to claim priority under 35 USC 119, 35 USC 120, or any other applicable
 provisions, based on any earlier patent applications for this invention.

NP-19981-US/P20161222US00

THIS IS PAGE 2 OF AN ASSIGNMENT FROM THE INVENTOR(S) TO
 ASSIGNEE: TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.
 INVENTION TITLE: DEVICE AND METHOD FOR ROBUSTNESS
VERIFICATION

As to all U.S. patent applications assigned under this agreement, the ASSIGNOR(S) hereby authorize(s) and request(s) the Commissioner of Patents and Trademark to issue all Letters Patent to the ASSIGNEE as the assignee of the entire right, title and interest, for the sole use and enjoyment of said ASSIGNEE, its successors and assigns.

Further, the ASSIGNOR(S) agree(s) to communicate to said ASSIGNEE, or its representatives, any fact known to the ASSIGNOR(S) with respect to said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal, reexamination and reissue applications, execute all necessary assignment papers to cause and all Letter Patent to be issued to said ASSIGNEE, make all rightful oaths and generally do everything necessary or desirable to aid said ASSIGNEE, its successors and assigns, to obtain and enforce proper protection for said invention.

The ASSIGNOR(S) authorize(s) the attorneys and agents who have the power of attorney in this application to check any appropriate boxes and to insert the Serial Number and filing date in this document after it has been executed.

Sandeep Kumar GOEL

Name of sole or first inventor



Signature

04/13/2017

Date

Stanley JOHN

Name of second inventor, if any

Signature

Date

Ji-Jan CHEN

Name of third inventor, if any

Signature

Date

Yun-Han LEE

Name of fourth inventor, if any

Signature

Date

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Sandeep Kumar GOEL

Name of sole or first inventor



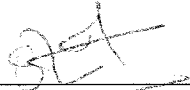
Signature

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Name of second inventor, if any



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Sandeep Kumar GOEL

Name of sole or first inventor

Signature_____
DateStanley JOHN

Name of second inventor, if any

Signature_____
DateJi-Jan CHEN

Name of third inventor, if any

Ji-Jan Chen
SignatureApr. 13, 2017
DateYun-Han LEE

Name of fourth inventor, if any

Signature_____
Date

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