

PATENT ASSIGNMENT COVER SHEET

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| SUBMISSION TYPE: | NEW ASSIGNMENT | | | | | | | | |
|---|--|---------------|----------------|---------------------|------------|-------------|------------|-----------------|------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT | | | | | | | | |
| CONVEYING PARTY DATA | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>CHUN-YANG TSAI</td> <td>01/16/2014</td> </tr> <tr> <td>YU-WEI TING</td> <td>01/16/2014</td> </tr> <tr> <td>KUO-CHING HUANG</td> <td>01/16/2014</td> </tr> </tbody> </table> | | Name | Execution Date | CHUN-YANG TSAI | 01/16/2014 | YU-WEI TING | 01/16/2014 | KUO-CHING HUANG | 01/16/2014 |
| Name | Execution Date | | | | | | | | |
| CHUN-YANG TSAI | 01/16/2014 | | | | | | | | |
| YU-WEI TING | 01/16/2014 | | | | | | | | |
| KUO-CHING HUANG | 01/16/2014 | | | | | | | | |
| RECEIVING PARTY DATA | | | | | | | | | |
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| PROPERTY NUMBERS Total: 1 | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>14152244</td> </tr> </tbody> </table> | | Property Type | Number | Application Number: | 14152244 | | | | |
| Property Type | Number | | | | | | | | |
| Application Number: | 14152244 | | | | | | | | |
| CORRESPONDENCE DATA | | | | | | | | | |
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| ATTORNEY DOCKET NUMBER: | TSMCP355USA | | | | | | | | |
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Date:

01/30/2014

Total Attachments: 5

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U.S. Patent Appln. No.

Docket No. TSMCP355USA

Filing Date:

PATENT ASSIGNMENT

PARTIES TO THE ASSIGNMENT

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AGREEMENT

WHEREAS, ASSIGNOR(S) (listed above) are inventor(s) of an invention entitled
**"METAL LINE CONNECTION FOR IMPROVED RRAM RELIABILITY, SEMICONDUCTOR
ARRANGEMENT COMPRISING THE SAME, AND MANUFACTURE THEREOF"** for which:

a non-provisional application for United States Letters Patent:

was executed on even date preparatory to filing (each inventor should sign this
Assignment on the same day as he/she signs the Declaration and Power of
Attorney); or

was filed on _____ and accorded U.S. Serial No. _____; or

U.S. Patent Appln. No.

Docket No. TSMCP355USA

Filing Date:

will be filed without this executed PATENT ASSIGNMENT. ASSIGNOR hereby authorizes and requests ASSIGNEE'S legal representatives, the attorneys associated with Customer No. _____, to insert below in this document this APPLICATION's U.S. Serial Number and filing date, 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 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

PATENT

TSMC Docket No. TSMC2013-0802

U.S. Patent Appln. No.

Docket No. TSMCP355USA

Filing Date:

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.

✓ 2014/01/16
Date

✓ 蔡政揚
Name 1st Inventor Chun-Yang Tsai

TSMC Docket No. TSMC2013-0802

Docket No. TSMCP355USA

U.S. Patent Appln. No.

Filing Date:

✓ 2014/01/16.
Date

✓ 丁冠偉
Name 2nd Inventor Yu-Wei Ting

TSMC Docket No. TSMC2013-0802

Docket No. TSMCP355USA

U.S. Patent Appln. No.

Filing Date:

✓ 2014/01/16

Date

✓ 黃國欽

Name 3rd Inventor Kuo-Ching Huang