

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT																		
NATURE OF CONVEYANCE:	ASSIGNMENT																		
CONVEYING PARTY DATA																			
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<table border="1"> <tr> <td>Name:</td> <td>TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.</td> </tr> <tr> <td>Street Address:</td> <td>NO. 8, LI-HSIN RD. 6</td> </tr> <tr> <td>Internal Address:</td> <td>HSIN-CHU SCIENCE PARK</td> </tr> <tr> <td>City:</td> <td>HSIN-CHU</td> </tr> <tr> <td>State/Country:</td> <td>TAIWAN</td> </tr> <tr> <td>Postal Code:</td> <td>300-77</td> </tr> </table>		Name:	TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.	Street Address:	NO. 8, LI-HSIN RD. 6	Internal Address:	HSIN-CHU SCIENCE PARK	City:	HSIN-CHU	State/Country:	TAIWAN	Postal Code:	300-77						
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CORRESPONDENCE DATA																			
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ATTORNEY DOCKET NUMBER:	TSMCP347US
NAME OF SUBMITTER:	THOMAS G. ESCHWEILER
Signature:	/Thomas G. Eschweiler/
Date:	12/12/2013
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Docket No. TSMCP347US

Filing Date:

PATENT ASSIGNMENT

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Republic of China

AGREEMENT

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

"TOP ELECTRODE BLOCKING LAYER FOR RRAM DEVICE" 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

☐ 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

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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.

✓ 11/26 2013
Date

✓ Hsia-Wei Chen
Name 1st Inventor Hsia-Wei Chen

U.S. Patent Appln. No.

Filing Date:

TSMC Docket No. TSMC2013-0756

Docket No. TSMCP347US

✓ 11/26/13
Date

✓ Wen-Ting Chiu
Name 2nd Inventor Wen-Ting Chu

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Filing Date:

TSMC Docket No. TSMC2013-0756
Docket No. TSMCP347US

✓ 11/26 2013
Date

✓ Kuo-Chi Tu
Name 3rd Inventor Kuo-Chi Tu

U.S. Patent Appln. No.

Filing Date:

✓ 2013/11/26
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TSMC Docket No. TSMC2013-0756

Docket No. TSMCP347US

✓ Chih-Yang Chang
Name 4th Inventor Chih-Yang Chang

U.S. Patent Appln. No.

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Date

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✓ Chin-Chieh Yang
Name 5th Inventor Chin-Chieh Yang

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Docket No. TSMCP347US

✓ Yu Wen Liao
Name 6th Inventor Yu-Wen Liao

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✓ 2013, 11, 16
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Name 7th Inventor Wen-Chun You

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Date

TSMC Docket No. TSMC2013-0756

Docket No. TSMCP347US

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Name 8th Inventor Sheng-Hung Shih