503017819 10/14/2014

PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT3064420

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
FU-TING SUNG	10/08/2014
CHERN-YOW HSU	10/08/2014
SHIH-CHANG LIU	10/13/2014

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

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14513781

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ATTORNEY DOCKET NUMBER:	TSMCP490US	
NAME OF SUBMITTER: JAMES R. POTASHNIK		
SIGNATURE:	/James R. Potashnik/	
DATE SIGNED:	10/14/2014	

Total Attachments: 5

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PATENT 503017819 REEL: 033945 FRAME: 0644

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PATENT REEL: 033945 FRAME: 0645

PATENT ASSIGNMENT

PARTIES TO THE ASSIGNMENT

Assignor(s):

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Assignor(s):

Chern-Yow Hsu 4F, No. 111-1, Xian Zheng 2nd Rd. Chu-Bei City, Hsin-Chu County 302, Taiwan (R.O.C.)

Assignor(s):

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Assignee:

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

AGREEMENT

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

"RRAM CELL WITH BOTTOM ELECTRODE" for which:

a non-provisional application for United States Letters Patent:

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

REEL: 033945 FRAME: 0646

Mil c	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 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.

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Name 1st Inventor Eu Ting S

Name 1st Inventor Fu-Ting Sung

PATENT REEL: 033945 FRAME: 0648

TSMC Docket No. TSMC2014-0906
Docket No. TSMCP490US

1 2014-10.8

Date

lame 2nd Inventor Chern

PATENT

REEL: 033945 FRAME: 0649

TSMC Docket No. TSMC2014-0906 Docket No. TSMCP490US

Date > 14/16/13

lame 3rd Inventor Shih-Chang Liu

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RECORDED: 10/14/2014