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OMB No. 0651-0027 (exp. 6/30/2005)	United States Patent and Trademark Office					
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To the Director of the U.S. Patent and Trademark Office: Pleas	e record the attached documents or the new address(es) below.					
1. Name of conveying party(ies)	2. Name and address of receiving party(ies)					
1) Chen-Ming HUANG 4) Chang-Jen HSIEH 2) Hung-Cheng SUNG 5) Ya-Chen KAO	Name: Taiwan Semiconductor Manufacturing Co., Ltd.					
3) Wen-Ting CHU	Internal Address:					
	S.U.S.					
Additional name(s) of conveying party(ies) attached? Yes ✓ No 3. Nature of conveyance/Execution Date(s):	Street Address: No. 8, Li-Hsin Rd. 6					
Execution Date(s) (1, 3-5) Jan. 6, 2006; (2) Feb. 21, 2006	Street Address: No. 8, Li-Hsin Rd. 6					
✓ Assignment Merger	Science-Based Industrial Park					
Security Agreement Change of Name	City: Hsin-Chu					
Joint Research Agreement	State:					
Government Interest Assignment	Country: Taiwan, R.O.C. Zip: 300-77					
Executive Order 9424, Confirmatory License						
Other 4. Application or patent number(s): √ This	Additional name(s) & address(es) attached? ☐ Yes ☑ No document is being filed together with a new application.					
A. Patent Application No.(s) Additional numbers att	B. Patent No.(s) ached? ☐ Yes ✓ No					
5. Name and address to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved: 1					
Name: Daniel R. McClure	7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00					
Internal Address:Thomas, Kayden, Horstemeyer &	Authorized to be charged by credit card					
Risley, LLP	Authorized to be charged to deposit account					
Street Address: 100 Galleria Parkway	Enclosed					
Suite 1750	None required (government interest not affecting title)					
City: Atlanta	8. Payment Information					
State: Georgia Zip:30339	a. Credit Card Last 4 Numbers 1009 Expiration Date 07/09					
Phone Number: <u>770-933-9500</u>						
Fax Number: 770-951-0933	b. Deposit Account Number					
Email Address: dan.mcclure@tkhr.com	Authorized User Name					
9. Signature: Dentill	<u>March 6, 2006</u> Date					
Signature Daniel R. McClure Name of Person Signing	Date Total number of pages including cover sheet, attachments, and documents:					

Documents to be recorded (including cover sheet) should be faxed to (703) 306-5995, or mailed to:
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

03/09/2006 FFANAIA2 00000029 11368714 04 FC:8021 40.

ASSIGNMENT

WHEREAS, Chen-Ming HUANG, Hung-Cheng SUNG, Wen-Ting CHU, Chang-Jen HSIEH and Ya-Chen KAO hereafter referred to as ASSIGNOR, has/have invented certain new and useful improvements as described and set forth in the below identified application for United States Letters Patent:

Title:	FLASH	MEMORY	СЕПП	MITH	SPLIT	GATE	STRUCTURE	AND	WETHOD	FOR	FORMING
	THE S.	AME					····				
Filed:					<u> </u>	_ Se	rial No.				
Execute	ed on:			January	6, 2006	Feb	ruary 21,	2006			
	· · · · · · · · · · · · · · · · · · ·										

WHEREAS, Taiwan Semiconductor Manufacturing Co., Ltd. of No. 8, Li-Hsin Rd. 6, Science-Based Industrial Park, Hsin-Chu, Taiwan 300-77, R.O.C. hereinafter referred to as ASSIGNEE, is desirous of acquiring ASSIGNOR'S interest in the said invention and application and in any U.S. Letters Patent which may be granted on the same;

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN: Be it known that, for good and valuable consideration, receipt of which is hereby acknowledged by Assignor, Assignor has/have sold, assigned and transferred, and by these presents does/do sell, assign and transfer unto the said Assignee, and Assignee's successors and assigns, all his/her/their rights, title and interest in and to the said invention and application and all future improvements thereon, and in and to any Letters Patent which may hereafter be granted on the same in the United States, the said interest to be held and enjoyed by said Assignee as fully and exclusively as it would have been held and enjoyed by said Assignor had this Assignment and transfer not been made, to the full end and term of any Letters Patent which may be granted thereon, or of any division, renewal, continuation in whole or in part, substitution, conversion, reissue, prolongation or extension thereof.

Assigner further agrees/agree that he/she/they will, without charge to said Assignee, but at Assignee's expense, cooperate with Assignee in the prosecution of said application and/or applications, execute, verify, acknowledge and deliver all such further papers, including applications for Letters Patent and for the reissue thereof, and instruments of assignment and transfer thereof, and will perform such other acts as Assignee lawfully may request, to obtain or maintain Letters Patent for said invention and improvement, and to vest title thereto in said Assignee, or Assignee's successors and assigns.

TSMC2005-0186/0503-A31661US

PATENT REEL: 017641 FRAME: 0717 IN TESTIMONY WHEREOF, Assignor has/have signed his/her/their name(s) on the date(s) indicated.

TSMC2005-0186/0503-A31661US

1/6/2006.

Chen-Ming HUANG	Date:
Hung-Cheng SUNG	Teb.21.061 Date:
Wen-Ting CHU	Date:
Chang-Jen HSIEH	Date:
Ya-Chen KAO	Date:

TSMC2005-0186/0503-A31661US

RECORDED: 03/06/2006

IN TESTIMONY WHEREOF, Assignor has/have signed his/her/their name(s) on the date(s) indicated.

PATENT REEL: 017641 FRAME: 0719