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Form PTO-1595 (Rev. 03/01) RF 07 - 01 -	. 2005 U.S. DEPARTMENT OF COMMERCE U.S. Patent and Trademark Office	
OMB No. 0651-0027 (exp. 5/31/2002)		
OMB No. 0651-0027 (exp. 5/31/2002) Tab settings ⇔ ⇔ ▼ Table 1 leave ble Commissioner of F		
To the Honorable Commissioner of F	riginal documents or copy thereof.	
1. Name of conveying party(ies):	3.3000 2. Name and address of receiving party(ies)	
Chien-Fan Wang	Name: Taiwan Semiconductor Manufacturing Co., Ltd.	
	Internal Address:	
Additional name(s) of conveying party(ies) attached? Yes ✓ No		
3. Nature of conveyance:		
✓ Assignment Merger		
Security Agreement Change of Name	Street Address: No. 8, Li-Hsin Road 6	
	Science Based Industrial Park	
Other	City: Hsin-Chu State: Zip:	
	Country: Taiwan 300-77 R.O.C.	
Execution Date: 12/22/2004	Additional name(s) & address(es) attached? Yes Vo	
4. Application number(s) or patent number(s):		
If this document is being filed together with a new application, the execution date of the application is:		
A. Patent Application No.(s) 11/021,117	B. Patent No.(s)	
Additional numbers attached? Yes Vo		
Name and address of party to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved:	
Name: Steven E. Koffs, Esquire	7. Total fee (37 CFR 3.41)\$_40.00	
	☐ Enclosed	
Internal Address: Duane Morris LLP		
	Authorized to be charged to deposit account	
	8. Deposit account number:	
Street Address: One Liberty Place	72 2	
	04-1679 \\ \frac{7}{F}	
	3300	
City: Philadelphia State: PA Zip: 19103	7F NAHOT	
DO NOT USE THIS SPACE		
9. Signature.		
$X \leftarrow C \lor OA$		
Steven E. Koffs, Esquire	lun . loffa 6/27/2005	
Name of Person Signing Signature Date		
Total number of pages including cover	r shoot attachments and desiments 5	

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents & Trademarks, Box Assignments Washington, D.C. 20231

PATENT

REEL: 016730 FRAME: 0695

ASSIGNMENT AND AGREEMENT

For value received, I/we, Chien-Fan Wang hereby sell, assign and transfer to		
Taiwan Semiconductor Manufacturing Co., Ltd., with its principal place of business		
located at No. 8, Li-Hsin Road 6, Science-Based Industrial Park, Hsin-Chu, Taiwan 300-		
77, Republic of China, and its successors, assigns and legal representatives, the entire		
right, title and interest, for the United States of America, in and to certain inventions		
related to SELF-LATCHED CONTROL CIRCUIT FOR MEMORY PROGRAM		
OPERATION described in an application for Letters Patent of the United States filed on		
December 22, 2004 and assigned U.S. Application Number		
and all the rights and privileges in said application and under		
any and all Letters Patent and any divisions, continuations, continuations-in-part,		
reexamination certificates, reissues, and extensions thereof that may be granted in the		
United States for said inventions; and I/we also concurrently hereby sell, assign and		
transfer to Taiwan Semiconductor Manufacturing Co., Ltd. the entire right, title and		
interest in and to said inventions for all countries foreign to the United States, including		
all rights of priority arising from the application aforesaid, and all the rights and		
privileges under any and all forms of protection, including Letters Patent, that may be		
granted in said countries foreign to the United States for said inventions.		

I/We authorize Taiwan Semiconductor Manufacturing Co., Ltd. to make application for such protection in its own name and maintain such protection in any and all countries foreign to the United States, and to invoke and claim for any application for patent or other form of protection for said inventions, without further authorization from me/us, any and all benefits, including the right of priority provided by any and all treaties, conventions, or agreements.

I/We hereby consent that a copy of this assignment shall be deemed a full legal and formal equivalent of any document which may be required in any country in proof of the right of Taiwan Semiconductor Manufacturing Co., Ltd. to apply for patent or other form of protection for said inventions and to claim the aforesaid benefit of the right of priority.

I/We request that any and all patents for said inventions be issued to Taiwan Semiconductor Manufacturing Co., Ltd. in the United States and in all countries foreign to the United States, or to such nominees as Taiwan Semiconductor Manufacturing Co., Ltd. may designate.

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Assignment and Agreement - Page 1

PATENT REEL: 016730 FRAME: 0696 Express Mail ER 492869051 US [PATENT] ATTY DOCKET NO.: TSMC2004-0191(N1280-00710)

I/We agree that, when requested, I/we shall, without charge to Taiwan Semiconductor Manufacturing Co., Ltd. but at its expense, sign all papers, and do all acts which may be necessary, desirable or convenient in connection with said applications, patents, or other forms of protection.

Inventor No. 1:	
Dated: $\frac{12/22}{6\kappa'}$	Claim- Jan Dans
	Chien-Fan Wang
Residence:	
F7, No.92, Lane 640,	Chungsun Rd., Hsing Chu,
Taiwan, R.O.C.	Citizenship: Taiwan

TSMC2004-0191 Assignment

RECORDED: 12/22/2004

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PATENT REEL: 016730 FRAME: 0697