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118/06	Form PTO-1595 R 03 - 03 (Rev. 03/01) OMB No. 0651-0027 (exp. 5/31/2002) Tab settings ⇒ ⇒ ▼ To the Honorable Commissioner of I 1. Name of conveying party(ies): 1) Chen-Hui Hsieh 2) Hau-Tai Shieh 3) Tao-Ping Wang	U.S. DEPARTMENT OF COMMERCED U.S. Patent and Trademark Office U.S.	
20	Additional name(s) of conveying party(es) attached? Yes No 3. Nature of conveyance: Assignment Merger Security Agreement Change of Name Other Execution Date: 02/16/2005	Street Address: No. 8, Li-Hsin Road 6 Science Based Industrial Park City: Hsin-Chu State: Zip: Country: Taiwan 300-77 R.O.C.	
	4. Application number(s) or patent number(s): If this document is being filed together with a new applic A. Patent Application No.(s)	ation number(s) or patent number(s): cument is being filed together with a new application, the execution date of the application is: 02/16/2005 ent Application No.(s) Additional numbers attached? Yes No	
	5. Name and address of party to whom correspondence concerning document should be mailed: Name: William H. Murray, Esquire Internal Address: Duane Morris LLP	6. Total number of applications and patents involved: 1 7. Total fee (37 CFR 3.41)\$\frac{40.00}{}\$ Enclosed Authorized to be charged to deposit account	
	Street Address: One Liberty Place	8. Deposit account number: 04-1679	
_	City: Philadelphia State: PA Zip: 19103 DO NOT USE THIS SPACE		
03/03/2009 01 FC:802	Name of Person Signing	2/18/2005 Signature Date er sheet, attachments, and documents:	

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

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

> PATENT REEL: 016311 FRAME: 0388

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ATTORNEY DOCKET NO.: 2004.0485/1280.00990

ASSIGNMENT AND AGREEMENT

For value received, we, Chen-Hui Hsieh, Hau-Tai Shieh and Tao-Ping 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 METHOD AND SYSTEM FOR TIMING MEASUREMENT OF EMBEDDED MACRO MODULE described in an application for Letters Patent of the United States and all the rights and privileges in said applications 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 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.

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 us, any and all benefits, including the right of priority provided by any and all treaties, conventions, or agreements.

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.

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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We agree that, when requested, 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: 02/16/2005

Chen-Hui Hsieh

Residence: No. 136, Lane 95, Tong-Hal Street, 1, Chu-Pei City Histor Chu County, TAIWAN. R.O.C.

Inventor No. 2

Dated: 02/16/2005

Hau-Tai Shieh

Residence: 145.-3, No. 25, Jianjhong 1st Rd., Hsinchu City 300. Taiwan. R.O.C

Inventor No. 3

Dated: 02/16/2025

Tar-Ping Wang

9F, No. 88, Ho Fing Rd., Hainchy City, Taivan. RO.C.

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RECORDED: 02/18/2005

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