Atty. Docket No.: 0941-0429P Page 1 of 1 03-28-2002 SHEET To 1 ıd Trademarks: Plea 102035179 or copy thereof. 1. Name of conveying party(ies): 2. Name and address of receiving party(ies) [FAMILY NAME (ALL CAPS), Given Name] Name: TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD. CHEN, Ker-Min 3-19-02 Internal Address: WANG, Wen-Tai Street Address: 121, Park Ave. III, Science-Based **Industrial Park** Additional name(s) of conveying party(ies) attached? ☐ YES ⊠ NO City: Hsin-Chu State: ZIP: 3. Nature of conveyance: Country: TAIWAN, R.O.C. Postal Code: 300 **☐** Assignment Merger Additional name(s) & address(es) attached? \square YES \bowtie NO Security Agreement ☐ Change of Name Other: Execution Date: January 17, 2002 and January 23, 2002 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: January 17, 2002 and January 23, 2002 A. Patent Application No(s). B. Patent No.(s). **NEW** Additional numbers attached? YES NO 6. Total No. of applications/patents involved: ONE (1) 5. Name and address of party to whom correspondence concerning document should be mailed: 7. Total fee (37 C.F.R. § 3.41): \$40.00 Name: BIRCH, STEWART, KOLASCH & BIRCH, LLP M Enclosed Street Address: P.O. BOX 747 Authorized to be charged to deposit account, ZIP: 22040-0747 if no fee attached. City: FALLS CHURCH State: VA 8. Deposit account number: 02-2448 Country: USA (Attach triplicate copy of this page if paying by deposit account) DO NOT USE THIS SPACE 9. Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. March 19, 2002 бе McKinney Muncy, #32,334 Name of Person Signing/Reg. No. Total number of pages including cover sheet, attachments, and document: TWO (2) KM/sl (Rev. 02/11/02) Jož kūlinoki (00000015) 1010005

> PATENT REEL: 012710 FRAME: 0661

ASSIGNMENT

WHEREAS, Ker-Min CHEN and Wen-Tai WANG 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: CIRCUIT TO ELIMINATE BUS CONTENT Filed: March 19, 2002 Serial No. Executed on: January 17, 2002 and January 23, 200	NEW
WHEREAS, <u>Taiwan Semiconductor Manufacturing Co., Ltd.</u> of 121, Park Ave. III, Science-Based Industrial Park, Hsin-Chu 300, <u>Taiwan, R.O.C.</u> 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.	
Assignor 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.	
IN TESTIMONY WHEREOF, Assignor has/have signed his/her/their name(s) on the date(s) indicated.	
Ker-Min Chen Ker-Min CHEN	2002/1/17 Date:
Edt Wen-Fai Wang	2012/1/13
Wen-Tai WANG	Date:

TSMC2001-0116/0503-6312US

RECORDED: 03/19/2002

PATENT REEL: 012710 FRAME: 0662