
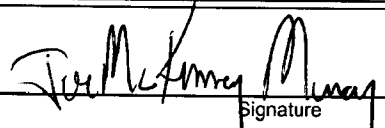


11-29-2004

J.S. DEPARTMENT OF COMMERCE  
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11.22.04		102890281	
To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.			
<b>1. Name of conveying party(ies)/Execution Date(s):</b> Yung-Sung YEN (11/09/2004), Kuei-Shun CHEN (11/09/2004), Chia-Hsiang LIN (11/09/2004), Lawrence LIN (11/09/2004), and Execution Date(s): <u>in parentheses after inventor name</u> Additional name(s) of conveying party(ies) attached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<b>2. Name and address of receiving party(ies)</b> Name: TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD. Internal Address: _____ Street Address: _____ No. 8, Li-Hsin Rd. 6, Science-Based Industrial Park City: Hsin-Chu State: _____ Country: Taiwan, Republic of China Zip: 300-77 Additional name(s) & address(es) attached: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
<b>3. Nature of Conveyance:</b> <input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name <input type="checkbox"/> Government Interest Assignment <input type="checkbox"/> Executive Order 9424, Confirmatory License <input type="checkbox"/> Other _____		<div style="writing-mode: vertical-rl; transform: rotate(180deg);">17548 U.S. PTO 10/992668</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">112204</div>	
<b>4. Application or patent number(s):</b> <input checked="" type="checkbox"/> This document is being filed together with a new application. A. Patent Application No.(s) NEW B. Patent No.(s) Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
<b>5. Name and address to whom correspondence concerning document should be mailed:</b> Name: Joe McKinney Muncy BIRCH, STEWART, KOLASCH & BIRCH, LLP Internal Address: Atty. Dkt.: 0941-1078PUS1 Street Address: 8110 Gatehouse Rd Suite 100 East P.O. Box 747 City: Falls Church State: VA Zip: 22040-0747 Phone Number: (703) 205-8000 Fax Number: (703) 205-8050 Email Address: mailroom@bskb.com		<b>6. Total number of applications and patents involved:</b> 1 <b>7. Total fee (37 CFR 1.21(h) &amp; 3.41) \$</b> 40.00 <input type="checkbox"/> Authorized to be charged by credit card <input type="checkbox"/> Authorized to be charged to deposit account <input checked="" type="checkbox"/> Enclosed <input type="checkbox"/> None required (government interest not affecting title) <b>8. Payment Information</b> a. Credit Card Last 4 Numbers _____ Expiration Date _____ b. Deposit Account Number _____ Authorized User Name _____	
<b>9. Signature:</b>  Signature Joe McKinney Muncy - 32,334 Name of Person Signing November 22, 2004 Date Total number of pages including cover sheet, attachments, and documents: 4			

KM/nl

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02 FC:8021  
03 FC:1202

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72.00 DP

**RECORDATION FORM COVER SHEET  
(continued)****Additional Conveying Party(ies)/Execution Date(s) (1. Continued):**

T.H. LIN (11/09/2004)

# ASSIGNMENT

WHEREAS, Yung-Sung YEN, Kuei-Shun CHEN, Chia-Hsiang LIN, Lawrence LIN and T. H. LIN 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: METHOD OF IMPROVING VIA FILLING UNIFORMITY IN ISOLATED AND DENSE VIA-PATTERN REGIONS

Filed: November 22, 2004 Serial No. NEW

Executed on: November 9, 2004

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.

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.

✓ Yung-Sung Yen  
Yung-Sung YEN

✓ 11/9 04'  
Date:

✓ Kuei-Shun Chen  
Kuei-Shun CHEN

✓ 11/9 04'  
Date:

TSMC2004-0632/0503-A30921U5

✓ Chia-Hsiang Lin

Chia-Hsiang LIN

✓ Lawrence Lin

Lawrence LIN

✓ T.H. LIN

T. H. LIN

✓ 11/9/2004

Date:

✓ 11/9/2004

Date:

✓ 11/9 2004

Date:

TSMC2004-0632/0503-A30921US

RECORDED: 11/22/2004

PATENT  
REEL: 016009 FRAME: 0979