| OMB No. 0651-0027 (exp. 6/30/2005) | 18 - 2005 DEPARTMENT OF COMMERCE |
|---|---|
| ~ REC | 7 PTO |
| | nents or the new address(es) below |
| 1. Name of conveying party(ies) | |
| Kuan-Chi TSAI | 2. Name and address of receiving party(ies) Name: Taiwan Semiconductor Manufacturing Co., Ltd. |
| Scottie LIN Sheng-Wen SU S.J. LIOU | Internal Address: |
| Additional name(s) of conveying party(ies) attached? Yes 🗸 I | No |
| 3. Nature of conveyance/Execution Date(s): | Street Address: No. 8, Li-Hsin Rd. 6 |
| Execution Date(s) June 22, 2005 Assignment Merger | Science-Based Industrial Park |
| Security Agreement Change of Name | City: Hsin-Chu |
| Joint Research Agreement | State: |
| Government Interest Assignment Executive Order 9424, Confirmatory License | Country: Taiwan, R.O.C. Zip: 300-77 |
| Other | Additional name(s) & address(es) attached? Yes |
| 2:8021 Additional numbers 5. Name and address to whom correspondence | attached? Yes No 6. Total number of applications and patents |
| concerning document should be mailed: | 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 tit |
| City: Atlanta | 8. Payment Information |
| State: Georgia Zip:30339 | a. Credit Card Last 4 Numbers 1009 Expiration Date 07/05 |
| Phone Number: 770-933-9500 | |
| Fax Number: 770-951-0933 | b. Deposit Account Number |
| Email Address: dan.mcclure@tkhr.com | Authorized User Name |
| 9. Signature: Danl 1 2 1 | • |
| Signature | July 7, 2005 Date |

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

REEL: 016766 FRAME: 0788

ASSIGNMENT

| WHEREAS, | Kuan-Chi | TSAI, | Scottie | LIN, | Sheng-Wen | SU, | and | S.J. | LIOU |
|------------------------|-----------------|-----------|--------------|----------|-----------------|--------|-------|----------|----------|
| hereafter referred to | as ASSIGNOI | R, has/ha | ve invented | certain | new and useful | limpro | vemen | ts as de | escribed |
| and set forth in the b | elow identified | applicati | on for Unite | d States | Letters Patent: | | | | |

| ICONDUCTOR DEVICE AND FABRICATION METHOD THEREOF | |
|--|--|
| Serial No | |
| on: June 22, 2005 | |

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.

TSMC2004-0260/0503-A30846US

PATENT REEL: 016766 FRAME: 0789

| Cvar-chi Tsai Kuan-Chi TSAI | (1/2/2005- |
|--------------------------------|--------------------|
| Kuan-Chi TSAI | Date: |
| Chih-hour-(In Chih-Houn LIN | 6/22/2005 Date: |
| | |
| Sheng Wen Su Sheng-Wen SU | 6/>2/>0-5 Date: |
| | |
| Shaw-Jang LIOU | GS2/2005 Date: |
| Shaw-Jang LIOU " | Date: |