Additional name(s) of conveying party(es) attached? ☐ Yes ☑ No 3. Nature of conveyance: ☑ Assignment ☑ Security Agreement ☑ Other	Tab settings 🖙 🖙 🔻 🔻	U.S. DEPARTMENT OF COMMERCI U.S. Patent and Trademark Office
Jhon Jhy Liaw Name: Taiwan Semiconductor Manufacturing Co Ltd Additional name(s) of conveying partyles) attached? Yes I No 3. Nature of conveyance: Assignment Image: Security Agreement Change of Name Other Street Address: No. 8, Li-Hsin Road 6 Othor Science-Based Industrial Park Othor City: Hsin-Chu Street Address: Street Address: Name: 10/24/03 Additional name(s) & address(es) attached? A 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) Street Address: of party to whom correspondence Concerning document should be mailed: Name: David M. O'Dell, Esq. Internal Address: 901 Main Street, Suite 3100 City: Dallas Street Address: 901 Main Street, Suite 3100 City: Dallas Statement and signature. To the best of my knowledge and bellef, the foregoing information is true and correct and any attached copy is a true copy of the original document. David M. O'Dell Ovor0028 1062/424 To the best of my knowledge and bellef, the foregoing information is true and correct and any attached copy is a true copy of the original document. David M. O'Dell Ovor0028 1062/424 To the best of my knowledge and bellef, the foregoing information is true and correct and any attached copy is a true copy of the original document. David M. O'Dell David M. O'Dell <	To the Honorable Commissioner of Function 1.02	original documents or copy thereof.
3. Nature of conveyance:		2. Name and address of receiving party(ies) Name: <u>Taiwan Semiconductor Manufacturing Co., Ltd.</u> Internal Address:
3. Nature of conveyance: ▲ Assignment ▲ Merger Security Agreement ▲ Change of Name Street Address: No. 8, Li-Hsin Road 6 Other Science-Based Industrial Park Other Street Address: No. 8, Li-Hsin Road 6 Science-Based Industrial Park City: _Hsin-Chu Application number(s) or patent number(s): Street Address(es) attached? If this document is being filed together with a new application, the execution date of the application is: B. Patent No.(s) A. Patent Application No.(s) 10/067/24 A. Patent Application No.(s) 10/067/24 Additional numbers attached? Yes Name: David M. O'Dell, Esq. 6. Total number of applications and patents involved: Internal Address: Haynes and Boone, LLP Authorized to be charged to deposit account T Street Address: 901 Main Street, Suite 3100 8. Deposit account number: City: Dallas State: TX Zip: 75202 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 at true copy of the original document. David M. O'Dell Name of Person Signing Name of Person Signing Signature Z-13-0 4 <td>Additional name(s) of conveying partv(ies) attached?</td> <td>No</td>	Additional name(s) of conveying partv(ies) attached?	No
Assignment Image of Name Security Agreement Change of Name Other City: Hsin-Chu Street Address: No. 8, Li-Hsin Road 6 City: Hsin-Chu State: Taiwan Zip: 300-7 Additional name(s) & address(es) attached? Yes A. 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) Additional numbers attached? Yes Name and address of party to whom correspondence concerning document should be mailed: Name: David M. O'Dell, Esq. Internal Address: Haynes and Boone, LLP Internal Address: 901 Main Street, Suite 3100 City: Dallas Street Address: 901 Main Street, Suite 3100 City: Dallas State: TX Zip: 75202 ONOT 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. David M. O'Dell Name of Person Signing Signature Date		
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Execution Date: 10/24/03 Additional name(s) & address(es) attached? Yes N 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: N A. Patent Application No.(s) 10/687424 B. Patent No.(s) Additional numbers attached? Yes No 5. Name and address of party to whom correspondence concerning document should be mailed: 6. Total number of applications and patents involved: Name: David M. O'Dell, Esq. 7. Total fee (37 CFR 3.41)	Cther	Science-Based Industrial Park
4. Application number(s) or patent number(s): Image: Additional number(s) & address(es) attached? Image: Vest (a) No. 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: Image: Additional numbers attached? Image: No. A. Patent Application No.(s) Image: Additional numbers attached? Image: No. Image: No. 5. Name and address of party to whom correspondence concerning document should be mailed: 6. Total number of applications and patents involved: Image: No. Name: David M. O'Dell, Esq. Image: Names: Address: Haynes and Boone, LLP Image: Name and address: Address: Haynes and Boone, LLP Image: Name and address: Address: 901 Main Street, Suite 3100 Image: Name and signature. Image: Name and signature. City: Dallas State: TX Zip: 75202 Image: Name and signature. Image: Name and signature. 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. Image: Name af Person Signing Name of Person Signing Signature Image: Name af Person Signing Signature Image: Zip: 72-04		City: <u>Hsin-Chu</u> State: <u>Taiwan</u> Zip: <u>300-77</u>
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	is a true copy of the original document. David M. O'Dell Name of Person Signing DBYRHE 00000028 10687424 Total number of pages including of 40.00 Offit documents to be recorded Commissioner of Patents	Signature Date Date

ASSIGNMENT

WHEREAS, I

Jhon Jhy Liaw of 5F, No. 111, Minshiang Street Hsin-Chu, Taiwan 300, R.O.C.

has invented certain improvements in

PROCESS INTEGRATION OF SOI FETS WITH ACTIVE LAYER SPACER

for which we have executed an application for Letters Patent of the United States of America, of even date herewith; and

WHEREAS, Taiwan Semiconductor Manufacturing Company, Ltd., ("TSMC"), No. 8, Li-Hsin Rd. 6, Science-Based Industrial Park Hsin-Chu, Taiwan 300-77, Republic of China is desirous of obtaining the entire right, title, and interest in, to and under the said invention and the said application in the United States of America and in any and all countries foreign thereto;

NOW, THEREFORE, for One Dollar (\$1.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and other good and valuable consideration, I have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said TSMC, its successors, legal representatives, and assigns, the entire right, title, and interest in, to and under the said invention, and the said application, and all divisional, renewal, substitutional, and continuing applications thereof, and all Letters Patent of the United States of America which may be granted thereon and all reissues and extensions thereof, and all applications for Letters Patent which may be filed for said invention in any country or countries foreign to the United States of America, and all extensions, renewals, and reissues thereof, and all prior patents and patent applications from which a filing priority of the above-described patent application may be obtained, including the right to collect past damages; and I hereby authorize and request the Commissioner of Patents of the United States of America, and any official of any country or countries foreign to the United States of America, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said invention to the said TSMC, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND I HEREBY covenant that I have full right to convey the entire interest herein assigned, and that I have not executed, and will not execute, any agreement in conflict herewith.

AND I HEREBY further covenant and agree that I will communicate to said TSMC, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceedings, sign all lawful papers, execute all divisional, renewal, substitutional, continuing, and reissue applications, make all rightful declarations and/or oaths and generally do everything possible to aid the said TSMC, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for said invention in all countries.

First Inventor Name: Residence Address:

Dated: V (1/34 2003

Dated: ______

Jhon Jhy Liaw 5F, No. 111, Minshiang Street Hsin-Chu, Taiwan 300, R.O.C. Taiwan, R.O.C.

V Thon Thy Lean Inventor Signature

Witness Signature Witness Name:

R-Assignment - TSMC (2002-0030)

PATENT REEL: 014988 FRAME: 0516

RECORDED: 02/19/2004