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OMB No. 0651-0027 (exp. 6/30/2005)

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To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

Chia-Lin Chen
Tze Liang Lee
Shih-Chang Chen

Additional name(s) of conveying party(ies) attached? [] Yes [x] No

2. Name and address of receiving party(ies)

Name: Taiwan Semiconductor Manufacturing Company Ltd.

Internal Address:

Street Address: No. 8, Li-Hsin Road 6

Science-Based industrial Park

City: Hsin-Chu State: TW Zip: 300-77

Additional name(s) & address(es) attached? [] Yes [x] No

3. Nature of conveyance:

- [x] Assignment [] Merger
[] Security Agreement [] Change of Name
[] Other

Execution Date: 11/25/03

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:

A. Patent Application No.(s) 10/395345

B. Patent No.(s)

Additional numbers attached? [] Yes [x] No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: David M. O'Dell

Internal Address: Haynes and Boone, LLP

Street Address: 901 Main Street, Suite 3100

City: Dallas State: TX Zip: 75202

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41).....\$ 40.00

- [x] Enclosed
[] Authorized to be charged to deposit account

8. Deposit account number:

08-1394

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9. Signature.

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David M. O'Dell 40.00 DP
Name of Person Signing

[Signature]
Signature

1-30-04
Date

Total number of pages including cover sheet, attachments, and documents: 4

Mail documents to be recorded with required cover sheet information to:
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Alexandria, VA 22313-1450

R-65720

Cust. No. 000027683

PATENT
REEL: 014937 FRAME: 0810

Attorney Docket No.: 24061.41/TSMC2002-1014
Customer No. 27683

ASSIGNMENT

WHEREAS, We

- (1) Chia-Lin Chen of 5F, NO. 111, Mingshiang St.
Hsin-Chu, Taiwan 300, R.O.C.
- (2) Tze Liang Lee of No. 6, Alley 1, Lane 158
Chang Chuen Street
Hsin-Chu, Taiwan 300, R.O.C.
- (3) Shih-Chang Chen of 5F, NO. 111, Minshiang St.
Hsin-Chu, Taiwan 300, R.O.C.

have invented certain improvements in

**DEVICE PERFORMANCE IMPROVEMENT BY HEAVILY DOPED PRE-GATE AND
POST POLYSILICON GATE CLEAN**

for which we have filed an application for Letters Patent of the United States of America on
March 24, 2003 under United States Patent Application Serial Number 10/395,345; and

WHEREAS, Taiwan Semiconductor Manufacturing Company, Ltd., ("TSMC"), No. 8, Li-Hsin
Road 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, we 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 we 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 WE HEREBY covenant that we have full right to convey the entire interest herein assigned,
and that we have not executed, and will not execute, any agreement in conflict herewith.

AND WE HEREBY further covenant and agree that we 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

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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: Chia-Lin Chen
Residence Address: 5F, NO. 111, Mingshiang St.
Hsin-Chu, Taiwan 300, R.O.C.

Dated: ✓ 11/25, 03

✓ Chia-Lin Chen
Inventor Signature

Dated: ✓ 11/25, 03

✓
Chien-Hao Chen
Witness Signature
Witness Name: _____

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Dated: ✓ 11/25 '03

✓ Tze-liang Lee
Inventor Signature

Dated: ✓ 11/25 '03

✓
Witness Signature
Witness Name: Chun-Fang Nieh

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Third Inventor Name:
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Dated: ✓ 1031125

✓ Shih-Chang Chen
Inventor Signature

Dated: ✓ 1031125

✓
Witness Signature
Witness Name: Shih-Chang Chen

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