

05126104

06-03-2004

Form PTO-1595
(Rev. 10/02)

REC

U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office

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

Tab settings ⇨ ⇨ ⇨ ▼ ▼ ▼ ▼ ▼ ▼

102757481

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

1. Name of conveying party(ies):

Chi-Wen Liu
Jung-Chih Tsao
Shih-Tzung Chang
Ying-Lang Wang
Kei-Wei ChenAdditional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

3. Nature of conveyance:

- ☒ Assignment ☐ Merger
☐ Security Agreement ☐ Change of Name
☐ Other _____

Execution Date: April 8, 2004

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, Hsin-Chu, Taiwan 300-77

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

Additional name(s) & address(es) attached? ☐ Yes ☒ 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: _____

A. Patent Application No.(s)

101854061

B. Patent No.(s) _____

Additional numbers attached? ☐ Yes ☐ No

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

Name: Timothy F. Bliss

Internal Address: _____

Street Address: Haynes and Boone, LLP

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

- ☒ Enclosed
☐ Authorized to be charged to deposit account

8. Deposit account number:

08-1394

DO NOT USE THIS SPACE

9. Signature.

Timothy F. Bliss

Name of Person Signing

T. F. Bliss

Signature

5/26/04

Date

Total number of pages including cover sheet, attachments, and documents: 3

40.00 Mail documents to be recorded with required cover sheet information to:

Mail Stop Assignment, Commissioner of Patent, P.O. Box 1450
Alexandria, VA 22313-1450

R-75743.1

Cust. No. 42717

PATENT
REEL: 015387 FRAME: 0664

ASSIGNMENT

WHEREAS, we

- | | | | |
|-----|------------------|----|---|
| (1) | Chi-Wen Liu | of | 5F, No. 111, Minshiang St., Hsin-Chu, Taiwan 300 Republic of China |
| (2) | Jung-Chih Tsao | of | 5F, No. 111, Minshiang St., Hsin-Chu, Taiwan 300 Republic of China |
| (3) | Shih-Tzung Chang | of | 5F, No. 111, Minshiang St., Hsin-Chu, Taiwan 300 Republic of China |
| (4) | Ying-Lang Wang | of | 5F, No. 111, Minshiang St., Hsin-Chu, Taiwan 300 Republic of China |
| (5) | Kei-Wei Chen | of | 1F, No. 224, Yung-Li Rd., Yung-ho, Taipei, Taiwan Republic of China 234 |

have invented certain improvements in

**METAL-FILLED OPENINGS FOR SUBMICRON DEVICES
AND METHODS OF MANUFACTURE THEREOF**

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, 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 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:

Chi-Wen Liu
5F, No. 111, Minshiang St.,
Hsin-Chu, Taiwan 300
Republic of China

Dated: 4/8/2004

Chi-Wen Liu
Chi-Wen Liu (Inventor Signature)

Dated: _____

Witness Signature
Witness Name: _____

Second Inventor Name:

Jung-Chih Tsao
5F, No. 111, Minshiang St.,
Hsin-Chu, Taiwan 300
Republic of China

Dated: 4/8/2004

Jung-Chih Tsao
Jung-Chih Tsao (Inventor Signature)

Dated: _____

Witness Signature
Witness Name: _____

Third Inventor Name:

Shih-Tzung Chang
5F, No. 111, Minshiang St.,
Hsin-Chu, Taiwan 300
Republic of China

Dated: 4/8/2004

Shih-Tzung Chang
Shih-Tzung Chang (Inventor Signature)

Dated: _____

Witness Signature
Witness Name: _____

Fourth Inventor Name:

Ying-Lang Wang
5F, No. 111, Minshiang St.,
Hsin-Chu, Taiwan 300
Republic of China

Dated: 4/8/2004

Ying-Lang Wang
Ying-Lang Wang (Inventor Signature)

Dated: _____

Witness Signature
Witness Name: _____

Fifth Inventor Name:

Kei-Wei Chen
1F, No. 224, Yung-Li Rd.
Yung-ho, Taipei, Taiwan 234
Republic of China

Dated: 4/8/2004

Kei-Wei Chen
Kei-Wei Chen (Inventor Signature)

Dated: _____

Witness Signature
Witness Name: _____