

05-07-2004

PTO-4595

R



102739613

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

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

1 Name of conveying party(ies):  KENG-CHU LIN, TIEN-I BAO, SYUN-MING JANG  4-30-04	2 Name and address of receiving party(ies):  Taiwan Semiconductor Manufacturing Co. Ltd. No. 8. Li-Hsin Rd. 6 Science-Based Industrial Park Hsin-Chu, Taiwan, R.O.C.						
3 Nature of conveyance: <input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger  <input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name  <input type="checkbox"/> Other: Execution Date Dec. 31, 2003	Additional name(s) & address(es) attached <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  10836297						
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: 12/31/03 <table border="1"> <tr> <td>A. Patent Application No(s).</td> <td>B. Patent No(s)</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>		A. Patent Application No(s).	B. Patent No(s)				
A. Patent Application No(s).	B. Patent No(s)						
Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No							
5 Name and address of party to whom correspondence concerning document should be mailed:  RANDY W. TUNG Tung & Associates 838 W. Long Lake Road Suite 120 Bloomfield Hills, Michigan 48302	6 Total number of applications and patents involved: 1  7 Total fee (37 CFR 3.41) \$40.00 <input type="checkbox"/> Enclosed <input checked="" type="checkbox"/> Authorized to charge credit card (w/filing fee)  8 Deposit Account Number: (Attach duplicate copy of this page if paying by deposit account)						

DO NOT USE THIS SPACE

9 Statement and signature.  <i>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.</i>  <table> <tr> <td> <u>Randy W. Tung</u>            Name of Person Signing            Registration No. 31,311         </td> <td>             Signature         </td> <td> <u>Apr 30/04</u>            Date         </td> </tr> </table>	<u>Randy W. Tung</u> Name of Person Signing Registration No. 31,311	 Signature	<u>Apr 30/04</u> Date
<u>Randy W. Tung</u> Name of Person Signing Registration No. 31,311	 Signature	<u>Apr 30/04</u> Date	

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

67,200-1237

 Commissioner for Patents  
 P.O. Box 1450  
 Alexandria, VA 22313-1450

05/05/2004 WASFAW1 00000025 10836297

A 00:0021

40.00 0P

 PATENT  
 REEL: 015295 FRAME: 0001

**ASSIGNMENT**

WHEREAS, we, KENG-CHU LIN, TIEN-I BAO, and SYUN-MING JANG, have  
invented certain improvements in

**METHOD OF FORMING CAPPING LAYER OVER CU INTERCONNECTS TO  
IMPROVE ELECTRICAL PERFORMANCE**

for which we are about to make application for Letters Patent of the United States; and

WHEREAS, TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD. of  
No. 121, Park Avenue 3, Science-Based Industrial Park, Hsin-Chu, Taiwan, R.O.C, is desirous of  
acquiring the entire right, title and interest in and to said invention;

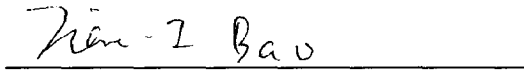
NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and  
valuable consideration, the receipt of which is hereby acknowledged, we, KENG-CHU LIN,  
TIEN-I BAO, and SYUN-MING JANG, by these presents, do hereby sell, assign and transfer  
unto the said corporation and its assigns, for the territory of the United States of America and all  
foreign countries, the entire right, title and interest, including all priority rights under the  
International Convention associated with each country of the Union, in and to said invention as  
described in the patent application executed by us on the 31<sup>th</sup> day of December,  
2003, preparatory to obtaining Letters Patent of the United States thereon, and in and to said  
application and any Letters Patent that may be granted in pursuance of said application and any  
divisional, continuation or continuation-in-part application thereof, and in and to any reissue of

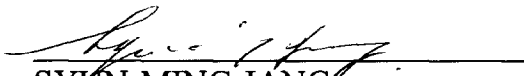
67,200-1237  
2003-1067

any such patent, and in and to any patent applications which may be filed on said invention in countries foreign to the United States and any Letters Patent granted thereon.

We further authorize said corporation to apply for foreign patents on said invention in its own name or through its designees, including subsidiaries, related companies or assignees, under the International Convention or otherwise, and we further agree to execute all papers, including those required for the United States and foreign applications, and to perform such other proper acts as said corporation or its designees the rights herein assigned.

  
KENG-CHU LIN

  
TIEN-I BAO

  
SYUN-MING JANG

**TUNG & ASSOCIATES**  
**838 W. Long Lake Road**  
**Suite 120**  
**Bloomfield Hills, Michigan 48302**