	10-25-2001	
PTO-1595	101886249	R SHEET U.S. DEPARTMENT OF COMMERCI Patent and Trademark Office
To the Honorable Commissioner of Pa	atents and Trademarks: Please	e record the attached original documents or copy thereof.
Cheng-Yu Chu Y Fu-Jier Fan S Chiou-Shian Peng H	uo-Wei Lin ang-Tung Fan hih-Jane Lin Isien-Tsung Liu	Name and address of receiving party(ies): Taiwan Semiconductor Manufacturing Co. Ltd. No. 121 Park Avenue 3 Science-Based Industrial Park Hsin-Chu, Taiwan, R.O.C.
3 Nature of conveyance: ■ Assignment □ Mer □ Security Agreement □ Other: Execution Date: July 28, 2001	rger ange of Name	Additional name(s) & address(es) attached □ Yes ☒ No
4 Application number(s) or patent number fithis document is being filed toget A. Patent Application No(s).		execution date of the application is: 07-28-01 B. Patent No(s)
5 Name and address of party to whor	Additional numbers attachem correspondence 6	ed? □ Yes ⊠ No Total number of applications and patents involved:
concerning document should be made RANDY W. TUNG Tung & Associates 838 W. Long Lake Road Suite 120 Bloomfield Hills, Michigan 48302 2001 EHAILE1 00000062 09978422 381 40.00 0P	7 8	Total fee (37 CFR 3.41) \$40.00 □ Enclosed □ Authorized to charge credit card (w/filing fee) Deposit Account Number: 50-0484 (Attach duplicate copy of this page if paying by deposit
		account)
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9 Statement and signature. To the best of my knowledge and be the original document. Randy W. Tung Name of Person Signing Registration No. 31,311	Signature	is true and correct and any attached copy is a true copy of lo/(5_, 2001 Date
		pages including cover sheet, attachments, and document : 3
Mail docume	nts to be recorded with requ	ired cover sheet information to:

Commissioner of Patents & Trademarks, Box Assignments Washington, D.C. 20231

67,200-542

PATENT REEL: 012270 FRAME: 0368

ASSIGNMENT

WHEREAS, WE, YEN-MING CHEN, KUO-WEI LIN, CHENG-YU CHU, YANG-TUNG FAN, FU-JIER FAN, SHIH-JANE LIN, CHIOU-SHIAN PENG, HSIEN-TSUNG LIU have invented certain improvements in METHOD OF FORMING A BUMP ON A COPPER PAD 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, YEN-MING CHEN, KUO-WEI LIN, CHENG-YU CHU, YANG-TUNG FAN, FU-JIER FAN, SHIH-JANE LIN, CHIOU-SHIAN PENG, HSIEN-TSUNG LIU, 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 28th day of July, 2001, preparatory to obtaining Letters Patent of the United States thereon, and in and to said application and any Letters

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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 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.

YEN-MING CHEN

Cheng- yn Chu

Tu-Jier Fan

Chiou-Shian Peng CHIOU-SHIAN PENG

Wo-WEILIN

YANGTUNG PAN

Shin-Jane Fin SHIH-JANE LIN

RECORDED: 10/15/2001

HSIEN-TSUNG INU

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PATENT REEL: 012270 FRAME: 0370