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9 Statement and signature.

the original document.

Randy W. Tung Name of Person Signing Registration No. 31,311

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of

Signature

Sept. 17, 2001

Total number of pages including cover sheet, attachments, and document  $\underline{: 3}$ 

Mail documents to be recorded with required cover sheet information to: Commissioner of Patents & Trademarks, Box Assignments Washington, D.C. 20231

67,200-520

**PATENT** REEL: 012183 FRAME: 0372

## **ASSIGNMENT**

WHEREAS, we, <u>KUO-CHI TU and WEN-JYA LIANG</u> have invented certain improvements in

CAPACITOR UNDER BITLINE (CUB MEMORY CELL STRUCTURE WITH REDUCED PARASITIC CAPACITANCE

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, KUO-CHI TU and WEN-JYA LIANG, 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 17th day of July, 2001, 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

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PATENT REEL: 012183 FRAME: 0373 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.

Kuo-Chi Tu

KUO-CHI TU

WEN-JYA LIANG

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

RECORDED: 09/17/2001

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