04-02-2001 SHEET U.S. DEPARTMENT OF COMMERCE R PTO-1595 Patent and Trademark Office 101654282 To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof. 1 Name of conveying party(ies): Name and address of receiving party(ies): Taiwan Semiconductor Manufacturing Co. Ltd. No. 121 Park Avenue 3 Chang-Hui Chao Science-Based Industrial Park Wen-Hwang Jiang Hsin-Chu, Taiwan, R.O.C. Hong-Yi Chang Nature of conveyance: Additional name(s) & address(es) attached □ Yes Ø No Assignment Merger □ Security Agreement • □ Change of Name Other: Execution Date: February 12, 2001 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: 02-12-01 B. Patent No(s) A. Patent Application No(s). 09/812040

Additional numbers attached? ☐ Yes ☑ No

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

- Total number of applications and patents involved:
- Total fee (37 CFR 3.41)

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Date

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67,200-387

PATENT REEL: 011626 FRAME: 0206

ASSIGNMENT

WHEREAS, we. CHANG-HUI CHAO, WEN-HUANG CHIANG and HONG-YI CHANG have invented certain improvements in SYSTEM AND METHOD FOR DETECTING SLAVE POWER SUPPLY FAILURE 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, CHANG-HUI CHAO, WEN-HUANG CHIANG and HONG-YI CHANG, 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 12th day of tebruary, 2001, preparatory to obtaining Letters Patent of the United States thereon, and in and to said application

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PATENT REEL: 011626 FRAME: 0207 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 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.

Chang, Hul Chao Wen-Hwang, Jiang CHANG-HUI CHAO WEN-HUANG CHIANG

Hung-Yi Changs HONG-YI CHANG

TUNG & ASSOCIATES 838 W. Long Lake Road Suite 120

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