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

101011455 To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy theree Name of conveying party(ies): 2 Name and address of receiving party(ies): Danniel Rcraw, Tsun-Ching Lin, Taiwan Semiconductor Manufacturin Ren-Zhi Deng and Chin-Chuan R Company, Ltd. No. 121 Park Avenue 3 Science-Based Industrial Park Hsin-Chu, Taiwan, R.O.C. January 13, 1999 Execution Date: Additional name(s) & address(es) attached □ Yes Ø No 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). B. Patent No(s) Additional numbers attached? □ Yes ☑ No Name and address of party to whom correspondence Total number of applications and patents involved: concerning document should be mailed: RANDY W. TUNG Total fee (37 CFR 3.41) \$40.00 Tung & Associates 838 W. Long Lake Road Enclosed Suite 120 Bloomfield Hills, Michigan 48302 Authorized to be charged to deposit account Deposit Account Number: (Attach duplicate copy of this page if paying by deposit DO NOT USE THIS SPACE 9 Statement and signature. 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. Randy W. Tung Name of Person Signing Signature Date Registration No. 31,311 Total number of pages including cover sheet, attachments, and document

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

Commissioner of Patents & Trademarks, Box Assignments

Washington, D.C. 20231

REEL: 9878 FRAME: 0250

ASSIGNMENT

WHEREAS, we, <u>DANNIEL RCRAW</u>, TSUN-CHING LIN, REN-ZHI DENG AND CHIN-CHUAN KUO, have invented certain improvements in MARCO LAMP LIFE EXTENSION IN INSTALLATION FOR ADI, AEI 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, <u>DANNIEL RCRAW</u>, <u>TSUN-CHING LIN</u>, <u>REN-ZHI DENG AND CHIN-CHUAN KUO</u>, 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 <u>Chin</u> day of <u>January</u>, 19<u>49</u>, 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 any such patent, and in and to any patent applications which may be filed on said

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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.

TSUN-CHING LIN

184N-CHING LIN

CHIN-CHUAN KUO

CHIN- CHUAN Kuo

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

RECORDED: 03/31/1999

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