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F 1 O- 1393	05-05-2003		R SHEET U.S. DEPARTME Patent a	R SHEET U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office	
To the Honorable Commissioner of	102438816)	attached original documents o	r copy thereof.	
1 Name of conveying party(ies):		2	Name and address of receiving party(ies	s): L	
Dun-Nian Yaung	42403		Taiwan Semiconductor Manufacturing Co. No. 121 Park Avenue 3 Science-Based Industrial Park		
Shou-Gwo Wuu			Hsin-Chu, Taiwan, R.O.C.	Jc97	
- B Nature of conveyance: ■ Assignment □ Merger		Additional name(s) & address(es) attached □ Yes ⊠ No			
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Other: Execution Date: July 27, 2002					
4 Application number(s) or patent n	number(s):				
If this document is being filed tog	ether with a new application	, the	execution date of the application is:07-	27-02	
A. Patent Application No(s). 10423375		B. Patent No(s)			
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5 Name and address of party to wh concerning document should be in		6	Total number of applications and patents 1	s involved:	
concerning document should be i		7	Total number of applications and patents 1 Total fee (37 CFR 3.41)	s involved: \$40.00	
concerning document should be in RANDY W. TUNG Tung & Associates 838 W. Long Lake Road Suite 120	mailed:		1		
concerning document should be in RANDY W. TUNG Tung & Associates 838 W. Long Lake Road Suite 120 Bloomfield Hills, Michigan 48302	mailed:		1 Total fee (37 CFR 3.41)	\$40.00	
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RANDY W. TUNG Tung & Associates 838 W. Long Lake Road Suite 120 Bloomfield Hills, Michigan 48302 2003 EFLORES 0000090 10423375 8021 9 Statement and signature. To the best of my knowledge and the original document. Randy W. Tung	DO NOT USE	7 8	Total fee (37 CFR 3.41) □ Enclosed ⊠ Authorized to charge credit care Deposit Account Number: 50-0 (Attach duplicate copy of this page if payaccount) SPACE is true and correct and any attached copy April 24, 2	\$40.00 d (w/filing fee) 0484 ying by deposit v is a true copy of	
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Mail documents to be recorded with required cover sheet information to Commissioner of Patents & Trademarks, Box Assignments Washington, D.C. 20231

ASSIGNMENT

WHEREAS, we, <u>DUN-NIAN YAUNG and SOU-KUO WU</u>, have invented certain improvements in

METHOD FOR FORMING IMAGE SENSOR

WITH COMPLEMENTARY CONCAVE AND CONVEX LENSES

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>DUN-NIAN YAUNG and SOU-KUO WU</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>27 th</u> day of <u>July</u>, 200 > 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

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PATENT REEL: 014014 FRAME: 0454 67,200-921 2002-0283

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.

Shun-Nian Yaung Heryllle DUN-NIAN YAUNG Shou-GWO (NUM

TUNG & ASSOCIATES 838 W. Long Lake Road

Suite 120

Bloomfield Hills, Michigan 48302

RECORDED: 04/24/2003

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