

PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT								
NATURE OF CONVEYANCE:	ASSIGNMENT								
CONVEYING PARTY DATA									
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Shih-Chi FU</td> <td>08/31/2010</td> </tr> <tr> <td>Kai TZENG</td> <td>08/31/2010</td> </tr> <tr> <td>Wen-Chen LU</td> <td>08/31/2010</td> </tr> </tbody> </table>		Name	Execution Date	Shih-Chi FU	08/31/2010	Kai TZENG	08/31/2010	Wen-Chen LU	08/31/2010
Name	Execution Date								
Shih-Chi FU	08/31/2010								
Kai TZENG	08/31/2010								
Wen-Chen LU	08/31/2010								
RECEIVING PARTY DATA									
Name:	TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY, LTD.								
Street Address:	No. 8, Li-Hsin Rd. VI, Hsinchu Science Park								
City:	Hsinchu								
State/Country:	TAIWAN								
Postal Code:	300								
PROPERTY NUMBERS Total: 1									
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13736380</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13736380				
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Application Number:	13736380								
CORRESPONDENCE DATA									
Fax Number:	7035185499								
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>									
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NAME OF SUBMITTER:	Randy A. Noranbrock								
Total Attachments: 1 source=Efiledassgn#page 1.tif									

OP \$40.00 13736380

ASSIGNMENT

In consideration of the premises and other good and valuable consideration in hand paid, the receipt and sufficiency of which is hereby acknowledged, the undersigned,

- 1) Shih-Chi FU
- 2) Kai-TZENG
- 3) Wen-Chen LU

who has made a certain new and useful invention, hereby sells, assigns and transfers unto

TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY, LTD. having a place of business at **No. 8, Li-Hsin Rd. VI, Hsinchu Science Park, Hsinchu 300, Taiwan R.O.C.**

its successors and assigns (hereinafter designated "ASSIGNEE") the entire right, title and interest for the United States of America as defined in 35 U.S.C. 100 in the invention entitled

SELF-ALIGNED IMPLANTS TO REDUCE CROSS-TALK OF IMAGING SENSORS

- (a) for which an application for United States Letters Patent was filed on August 30, 2010, and identified by United States Patent Application No. 12/871,032; or
- (b) for which an application for United States Letters Patent was executed on _____,

and the undersigned hereby authorizes and requests the United States Commissioner of Patents and Trademarks to issue any and all United States Letters Patent which may be granted therefore and any and all extensions, divisions, reissues, continuations, or continuations-in-part thereof, and the right to all benefits under the International Convention for the Protection of Industrial Property to the said ASSIGNEE, for its interest as ASSIGNEE, its successors, assigns and legal representatives; the undersigned agrees that the attorneys of record in said application shall hereafter act on behalf of said ASSIGNEE;

AND the undersigned hereby agrees to transfer a like interest, and to render all necessary assistance in making application for and obtaining original, divisional, reissued or extended Letters Patent of the United States, upon request of the said ASSIGNEE, its successors, assigns and legal representatives, and without further remuneration, in and to any improvements, and applications for patent based thereon, growing out of or related to the said invention; and to execute any papers by the said ASSIGNEE, its successors, assigns and legal representatives, deemed essential to ASSIGNEE's full protection and title in and to the invention hereby transferred.

SIGNED on the date indicated aside my signature:

1) Shih-Chi Fu
Name: Shih-Chi FU

Aug 31, 2010
Date:

2) Kai-Tzeng
Name: KAI-TZENG

Aug. 31, 2010
Date:

3) Wen-Chen Lu
Name: Wen-Chen LU

Aug. 31, 2010
Date: