

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>Atul KATOCH</td> <td>03/05/2010</td> </tr> <tr> <td>Mayank TAYAL</td> <td>03/05/2010</td> </tr> </tbody> </table>		Name	Execution Date	Atul KATOCH	03/05/2010	Mayank TAYAL	03/05/2010				
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RECEIVING PARTY DATA											
<table border="1"> <tr> <td>Name:</td> <td>TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY, LTD.</td> </tr> <tr> <td>Street Address:</td> <td>No. 8, Li-Hsin Rd. VI, Hsinchu Science Park</td> </tr> <tr> <td>City:</td> <td>Hsinchu</td> </tr> <tr> <td>State/Country:</td> <td>TAIWAN</td> </tr> <tr> <td>Postal Code:</td> <td>300</td> </tr> </table>		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
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Application Number:	13618646										
CORRESPONDENCE DATA											
Fax Number:	7035185499										
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NAME OF SUBMITTER:	Randy A. Noranbrock										
Total Attachments: 1 source=efiledassgn#page1.tif											

OP \$40.00 13618646

Docket No.: T5057-B041U

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) Atul KATOCH
- 2) Mayank TAYAL

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, Taiwan 300, 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

SENSE AMPLIFIERS AND EXEMPLARY APPLICATIONS

(a) for which an application for United States Letters Patent was filed on 3-25-10, and identified by United States Patent Application No. 12/731,625; 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) *Atul Katoch*
Name: Atul KATOCH

5th March 2010
Date:

2) *Mayank Tayal*
Name: Mayank TAYAL

5th March 2010
Date: