

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>Chan-Hong CHERN</td> <td>04/16/2010</td> </tr> <tr> <td>Steven SWEI</td> <td>04/16/2010</td> </tr> </tbody> </table>		Name	Execution Date	Chan-Hong CHERN	04/16/2010	Steven SWEI	04/16/2010
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Chan-Hong CHERN	04/16/2010						
Steven SWEI	04/16/2010						
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>13915236</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13915236		
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Application Number:	13915236						
CORRESPONDENCE DATA							
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NAME OF SUBMITTER:	Randy A. Noranbrock						
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Date:	06/11/2013						
Total Attachments: 1 source=efiledassgn#page1.tif							

OP \$40.00 13915236

Docket No.: T5057-B017U

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) Chan-Hong CHERN
- 2) Steven SWEI

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 _____

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

PROVIDING LINEAR RELATIONSHIP BETWEEN TEMPERATURE AND DIGITAL CODE

- (a) for which an application for United States Letters Patent was filed on 4-21-10, and identified by United States Patent Application No. 12/764,532; or
- (b) for which an application for United States Letters Patent was executed on _____.

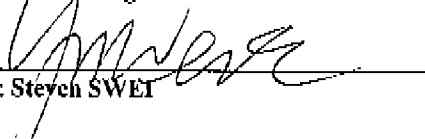
and the undersigned hereby authorizes and requests the United States Commissioner of Patents and Trademarks to issue any and all United States Letters Patent which may be granted therefore and any and all extensions, divisions, reissues, continuations, or continuations-in-part thereof, and the right 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) 
 Name: Chan-Hong CHERN

4/16/2010
 Date:

2) 
 Name: Steven SWEI

4/16/2010
 Date: