PATENT ASSIGNMENT

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SUBMISSION TYPE: NEW ASSIGNMENT

NATURE OF CONVEYANCE: ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Wei Sen CHANG	06/18/2010

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

Property Type	Number
Application Number:	12832205

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER: T5057-Y264

NAME OF SUBMITTER: Yoon S. Ham

Total Attachments: 1

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OF \$40.00 128

PATENT REEL: 024650 FRAME: 0388

Docket No. T5057-Y264

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) Wei Sen CHANG

who h	as made a certain new and useful invention, hereby sells, assigns and transfers unto
TAI	WAN 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.
	cessors and assigns (hereinafter designated "ASSIGNEE") the entire right, title and interest for the United States of America ined in 35 U.S.C. 100 in the invention entitled
ME)	THOD OF FORMING CU PILLAR CAPPED BY BARRIER LAYER
(a)	for which an application for United States Letters Patent was filed on $\frac{7-8-10}{}$, and identified by United States Patent Application No. $\frac{12/832,205}{}$; or
(b)	for which an application for United States Letters Patent was executed on,
all Un contin Proper	the undersigned hereby authorizes and requests the United States Commissioner of Patents and Trademarks to issue any and littled States Letters Patent which may be granted therefore and any and all extensions, divisions, reissues, continuations, or mustions-in-part thereof, and the right to all benefits under the International Convention for the Protection of Industrial rty to the said ASSIGNEE, for its interest as ASSIGNEE, its successors, assigns and legal representatives; the undersigned of that the attorneys of record in said application shall hereafter act on behalf of said ASSIGNEE;
annlic	AND the undersigned hereby agrees to transfer a like interest, and to render all necessary assistance in making

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: Wei Sen CHANG

7010 | 56 | 18 Date:

> PATENT REEL: 024650 FRAME: 0389

RECORDED: 07/08/2010