503613570 12/16/2015

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JHON JHY LIAW	06/16/2014

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:	14970619

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	T5057-1075A
NAME OF SUBMITTER:	RANDY A. NORANBROCK
SIGNATURE:	/Randy A. Noranbrock/
DATE SIGNED:	12/16/2015

Total Attachments: 1

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PATENT REEL: 037301 FRAME: 0580

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Docket No. T5057-1075 TSMC2014-0553

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) Jhon Jhy LIAW

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

MEMORY CHIP AND LAYOUT DESIGN FOR MANUFACTURING SAME

(a)	for which an application for United States Letters Patent was filed on $2014-06-20$, and identified by United States Patent Application No. $14/310,399$; or
(b)	for which an application for United States Letters Patent was executed on,
all Unit continu Propert	undersigned hereby authorizes and requests the United States Commissioner of Patents and Trademarks to issue any and sed States Letters Patent which may be granted therefore and any and all extensions, divisions, reissues, continuations, or ations-in-part thereof, and the right to all benefits under the International Convention for the Protection of Industrial y to the said ASSIGNEE, for its interest as ASSIGNEE, its successors, assigns and legal representatives; the undersigned hat the attorneys of record in said application shall hereafter act on behalf of said ASSIGNEE;
ASSIG applicat	AND the undersigned hereby agrees to transfer a like interest, and to render all necessary assistance in making tion for and obtaining original, divisional, reissued or extended Letters Patent of the United States, upon request of the said NEE, its successors, assigns and legal representatives, and without further remuneration, in and to any improvements, and itons for patent based thereon, growing out of or related to the said invention; and to execute any papers by the said NEE, its successors, assigns and legal representatives, deemed essential to ASSIGNEE's full protection and title in and to

SIGNED on the date indicated aside my signature:

the invention hereby transferred.

Thon Thy Law

June - 6. 20/X

PATENT REEL: 037301 FRAME: 0581

RECORDED: 12/16/2015