504809977 03/08/2018

EPAS ID: PAT4856711

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

 SUBMISSION TYPE:
 NEW ASSIGNMENT

 NATURE OF CONVEYANCE:
 ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ATUL KATOCH	08/05/2014
CORMAC MICHAEL O'CONNELL	08/05/2014

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:	15915242

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER: T5057-1067A

NAME OF SUBMITTER: RANDY A. NORANBROCK

SIGNATURE: /Randy A. Noranbrock/

DATE SIGNED: 03/08/2018

Total Attachments: 1

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PATENT 504809977 REEL: 045142 FRAME: 0444

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Docket No. T5057-1067 TSMC2014-0520

ASSIGNMENT

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

- 1) Atul KATOCH
- Cormac Michael O'CONNELL

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 L.S.C. 100 in the invention entitled

MEMORY ARCHITECTURE

for which an application for United St United States Patent Application No.	2014-08-15 ; or	and	identified	by

for which an application for United States Letters Patent was executed on ______ (b)

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 anc 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 potent 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:

Name: Atul KA1 OCH

Name: Cormac Michael O'CONN

PATENT REEL: 045142 FRAME: 0445

RECORDED: 03/08/2018