505499235 05/29/2019

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
AMIT KUNDU	12/21/2018
JAW-JUINN HORNG	12/21/2018

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:	16425874

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	T5057-1353U
NAME OF SUBMITTER:	RANDY A. NORANBROCK
SIGNATURE:	/Randy A. Noranbrock/
DATE SIGNED:	05/29/2019

Total Attachments: 1

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PATENT 505499235 REEL: 049312 FRAME: 0224

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TL 5 NP-23953-0-US-B5 Docket No. T5057-1353U P20180519US00

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) Amit KUNDU

RECORDED: 05/29/2019

2) Jaw-Juinn HORNG

who has made a certain new and useful invention, hereby sells, assigns and transfers unto <u>TAIWAN SEMICONDUCTOR</u> <u>MANUFACTURING COMPANY, LTD.</u>, 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

as defin	ed in 35 U.S.C. 100 in the invention entitled				
HEAT	SINK LAYOUT DESIGNS FOR ADVANCED I	INFI	ET INTEGRATED	CIRCUITS	
(a)	for which an application for United States Letters Patent was fill United States Patent Application No16/425.874	ed on _	2019-05-29	, and identified	by
(b)	for which an application for United States Letters Patent was ex	ecuted	011		
all Unite continua Property	undersigned hereby authorizes and requests the United States C ad States Letters Patent which may be granted therefore and an ations-in-part thereof, and the right to all benefits under the l to the said ASSIGNEE, for its interest as ASSIGNEE, its success that the attorneys of record in said application shall hereafter act of	y and a internat essors,	ill extensions, divisions, ional Convention for the assigns and legal repre	, reissues, continuations, he Protection of Industr	or rial
ASSIGN applicat ASSIGN	AND the undersigned hereby agrees to transfer a like inte- ion for and obtaining original, divisional, reissued or extended L VEE, its successors, assigns and legal representatives, and without ions for patent based thereon, growing out of or related to the VEE, its successors, assigns and legal representatives, deemed ention hereby transferred.	etters F ut furth e said	'atent of the United Stat- ier remuneration, in and invention; and to execu	ies, upon request of the se I to any improvements, a ute any papers by the se	aid ind aid
SIGNEI	O on the date indicated aside my signature:				
1) Name	: Amit KUNDU	2. Dat	1 Dec 2018		
2) Name	Jaw-Julin HORNG) Dat	, Dec! wid		

PATENT REEL: 049312 FRAME: 0225