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PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
MENG-SHENG CHANG	01/25/2019
CHEN-MING HUNG	02/22/2019
SHAO-YU CHOU	01/25/2019
YAO-JEN YANG	01/25/2019

RECEIVING PARTY DATA

Name:	TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY, LTD.	
Street Address:	Street Address: 8, LI-HSIN RD. 6, HSINCHU SCIENCE PARK	
City: HSINCHU		
State/Country:	tate/Country: TAIWAN	
Postal Code: 300-78		

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	17178973	

CORRESPONDENCE DATA

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Email: tsmc@ipfirm.com

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Address Line 4: ALEXANDRIA, VIRGINIA 22314

ATTORNEY DOCKET NUMBER:	T5057-1328UA	
NAME OF SUBMITTER:	RANDY A. NORANBROCK	
SIGNATURE:	/Randy A. Noranbrock/	
DATE SIGNED:	02/18/2021	

Total Attachments: 2

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> PATENT REEL: 055322 FRAME: 0678

3) Name: Shao-Yu CHOU

4) 700 fax Young Name: Yao-Jen YANG JC2P0

Docket No. T5057-1328U P20180026US01

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) Meng-Sheng CHANG Shao-Yu CHOU Chen-Ming HUNG 4) Yao-Jen YANG 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 INTEGRATED CIRCUIT LAYOUT, STRUCTURE, SYSTEM, AND METHODS (a) 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 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) Mang-Shong OHANG Name: Meng-Sheng CHANG Name: Chen-Ming HUNG

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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)	Meng-Sheng CHANG	3)	Shao-Yu CHOU
	2)	Chen-Ming HUNG	4)	Yao-Jen YANG
MANUE 300, Taiv its success as defined	ACTI van R sors a i în 3:	JRING COMPANY, LTD., having a place. O.C. and assigns (hereinafter designated "ASSI 5 U.S.C. 100 in the invention entitled	ace of b	ells, assigns and transfers unto <u>TAIWAN SEMICONDUCTOR</u> usiness at No. 8, Li-Hsin Rd. VI, Hsinchu Science Park, Hsinchu the entire right, title and interest for the United States of America JRE, SYSTEM, AND METHODS
(a) 1	for wi		ers Pater	nt was filed on, and identified by
(b) 1	for wl	nich an application for United States Lette	ers Pater	nt was executed on,
all United continuation of the continuation of	I State ions-i to the at the AND on for EE, it ons fo EE, it tion h	es Letters Patent which may be granted in-part thereof, and the right to all bene said ASSIGNEE, for its interest as ASS attorneys of record in said application shift the undersigned hereby agrees to train and obtaining original, divisional, reissues successors, assigns and legal representate patent based thereon, growing out of	thereforefits und SIGNEE all hereausifer a ed or ex atives, a or relat	States Commissioner of Patents and Trademarks to issue any and et and any and all extensions, divisions, reissues, continuations, or der the International Convention for the Protection of Industrial it, its successors, assigns and legal representatives; the undersigned after act on behalf of said ASSIGNEE; like interest, and to render all necessary assistance in making tended Letters Patent of the United States, upon request of the said and without further renumeration, in and to any improvements, and ted to the said invention; and to execute any papers by the said learned essential to ASSIGNEE's full protection and title in and to
		, ,		
Name: (Meng	-Sheng CHANG		Date:
2) Name: (hen Chen	Ming HUNG		
3)	Shao-	Yu CHOU		Date:

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Date:

PATENT REEL: 055322 FRAME: 0680

4) Name: Yao-Jen YANG