505922167 02/18/2020

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
WEI-CHENG LIN	11/11/2016
CHIH-LIANG CHEN	10/27/2016
CHIH-MING LAI	11/01/2016
CHARLES CHEW-YUEN YOUNG	11/18/2016
JIANN-TYNG TZENG	11/11/2016
KAM-TOU SIO	11/18/2016
RU-GUN LIU	11/18/2016
SHIH-WEI PENG	11/18/2016
WEI-CHEN CHIEN	11/11/2016

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:	16793693

CORRESPONDENCE DATA

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PAIENI REEL: 051849 FRAME: 0346 505922167

SIGNATURE:	/Randy A. Noranbrock/	
DATE SIGNED:	02/18/2020	
Total Attachments: 2		
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PATENT REEL: 051849 FRAME: 0347

Docket No. T5057-1209 P20160210US00

ASSIGNMENT

In consid	eration of t	he premises	and other	r good ar	d valuable	consideration	in hand	paid,	the	receipt	and
sufficiency of whi	ch is hereby	acknowledge	ed, the un	dersigned.				• ′		r	

1) Wei-Cheng LIN

6) Kam-Tou SIO

2) Chih-Liang CHEN

7) Ru-Gun LIU

3) Chih-Ming LAI

8) Shih-Wei PENG

4) Charles Chew-Yuen YOUNG

9) Wei-Chen CHIEN

5) Jiann-Tyng TZENG

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

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

SYSTEM FOR AND METHOD OF MANUFACTURING A LAYOUT DESIGN OF AN

INTEGRATED CIRCUIT				
(a) for which an application for identified by United States P	for which an application for United States Letters Patent was filed on	2016-09-07	, and	
	identified by United States Patent Application No. 15/258,932	; or		
(b)	for which an application for United States Letters Patent was executed on			
and the	undersigned hereby authorizes and requests the United States Commiss	sioner of Patents and T	Frademarks to	

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) Mei-Cheng, Lin	2016/11/11
Name: Wei-Cheng LIN	Date:

1

Docket No. T5057-1209 P20160210US00

2) Chih-Liang Chen	2016/10/27
Name: Chih-Liang CHEN	Date:
3) Chih-Ming Lat Name: Chih-Ming LAT	2016, 11.01
Name: Chih-Ming LAT	Date:
4) _ () ()	11/18/2016
Name: Charles Chew-Yuer YOUNG	Date:
5) Tran Tyng Derf	>016,11.11
Name: Jiann-Tyng TZENG	Date:
6) Kan Gw Wo Name: Kam-Tou SIO	2016 M 18.
Name. Ram-Tou Sto	Date.
7) Ru-Sun Liy	~16 /11 /18
Name: Ru-Gun LIU	Date:
8) Shih-wei Peng	2016/11/18
Name: Shih-Wei PENG	Date:
9) Wei-Cheng, Lin	2016/11/11
Name: Mar. Chan CHIEN E	Dotos