PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6143067

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date	
MAO-WEI CHIU	11/15/2016	
TING-WEI CHIANG	11/15/2016	
HUI-ZHONG ZHUANG	11/15/2016	
LI-CHUN TIEN	11/15/2016	
CHI-YU LU	11/15/2016	

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:	16895803	

CORRESPONDENCE DATA

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NAME OF SUBMITTER:	RANDY A. NORANBROCK	
SIGNATURE:	/Randy A. Noranbrock/	
DATE SIGNED:	06/08/2020	

Total Attachments: 2

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> PATENT REEL: 052869 FRAME: 0024

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P20160352US00

and

ASSIGNMENT

In considera	ation of the pren	ises and othe	r good and	valuable	consideration	in hand	paid, t	he receipt	and
sufficiency of which	is hereby acknow	edged, the un	dersigned,						

- 1) Mao-Wei CHIU
- 4) Li-Chun TIEN
- 2) Ting-Wei CHIANG
- 5) Chi-Yu LU
- 3) Hui-Zhong ZHUANG

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

STANDARD CELL LAYOUT, SEMICONDUCTOR DEVICE HAVING ENGINEERING

for which an application for United States Letters Patent was filed on ______2016-12-06

CHANGE ORDER (ECO) CELLS AND METHOD

	identified by United States Patent Application No. 15/370,418; or
(b)	for which an application for United States Letters Patent was executed on,
and the	undersigned hereby authorizes and requests the United States Commissioner of Patents and Trademarks 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) Mao-Wei (hill	2016/11/15
Name: Mao-Wei CHIU	Date:
	2016/11/15
Name: Ting-Wei CHIANG	Date:

3)	Hui-Zhor	ZND.	NG-	H	<u>VA</u>	VC
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4)	dic	hur	<u> </u>	hi	~_	
Name	: Li-Chun	TIEN		,		
5)	di	-Yu	Lu	•		

Name: Chi-Yu LU

1/15.2016.
Date:
11/15.2016
Date:
11/15 20/6.