PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT8131676

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
TSENG CHIN LO	04/11/2017
MOLLY CHANG	04/11/2017
YA-WEN TSENG	04/11/2017
CHIH-TING SUN	04/14/2017
ZI-KUAN LI	04/14/2017
BO-SEN CHANG	04/14/2017
GENG-HE LIN	04/14/2017

RECEIVING PARTY DATA

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

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	18357224

CORRESPONDENCE DATA

Fax Number: (214)200-0853

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 2146515000

Email: IPDOCKETING@HAYNESBOONE.COM

Correspondent Name: HAYNES AND BOONE, LLP Address Line 1: 2323 VICTORY AVENUE

Address Line 2: SUITE 700

Address Line 4: DALLAS, TEXAS 75219

ATTORNEY DOCKET NUMBER:	20160390 / 24061.3398US06	
NAME OF SUBMITTER:	LINDA INGRAM	
SIGNATURE:	/Linda Ingram/	

PATENT 508084522 REEL: 064694 FRAME: 0935

DATE SIGNED: 08/24/2023

Total Attachments: 3
source=24061.3398US05 - Assignment#page1.tif
source=24061.3398US05 - Assignment#page2.tif
source=24061.3398US05 - Assignment#page3.tif

Docket No.: 20160390/24061.3398US01 Customer No.: 000042717

ASSIGNMENT

WHEREAS, we,

(1)	Tseng Chin Lo	of	Hsinchu City, Taiwan (R.O.C.)
(2)	Molly Chang	of	Hsinchu, Taiwan (R.O.C.)
(3)	Ya-Wen Tsen	of	Hsinchu City, Taiwan (R.O.C.)
(4)	Chih-Ting Sun	of	Hsinchu, Taiwan (R.O.C.)
(5)	Zi-Kuan Li	of	Hsinchu, Taiwan (R.O.C.)
(6)	Bo-Sen Chang	of	Hsinchu, Taiwan (R.O.C.)
(7)	Geng-He Lin	of	Hsinchu, Taiwan (R.O.C.)

have invented certain improvements in

INTEGRATED CIRCUIT FILLER AND METHOD THEREOF

for which we have	executed an application	on for Letters Patent of the United States o	f America,
<u> X</u>	of even date filed he	erewith; and	
	filed on	and assigned application number	; and
		of record to update this document to inc ling date, serial number, etc.);	lude Patent Office

WHEREAS, Taiwan Semiconductor Manufacturing Co., Ltd., ("TSMC"), No. 8, Li-Hsin Rd. 6, Hsinchu Science Park Hsinchu, 300-78, Taiwan, Republic of China. is desirous of obtaining the entire right, title, and interest in, to and under the said invention and the said application in the United States of America and in any and all countries foreign thereto;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and other good and valuable consideration, we have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said TSMC, its successors, legal representatives, and assigns, the entire right, title, and interest in, to and under the said invention, and the said application, and all divisional, renewal, substitutional, and continuing applications thereof, and all Letters Patent of the United States of America which may be granted thereon and all reissues and extensions thereof, and all applications for Letters Patent which may be filed for said invention in any country or countries foreign to the United States of America, and all extensions, renewals, and reissues thereof, and all prior patents and patent applications from which a filing priority of the above-described patent application may be obtained, including the right to collect past damages; and we hereby authorize and request the Commissioner of Patents of the United States of America, and any official of any country or countries foreign to the United States of America, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said

15189942 1 - 1 -

Docket No.: 20160390/24061.3398US01

Customer No.: 000042717

invention to the said TSMC, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant that we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith.

AND WE HEREBY further covenant and agree that we will communicate to said TSMC, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceedings, sign all lawful papers, execute all divisional, renewal, substitutional, continuing, and reissue applications, make all rightful declarations and/or oaths and generally do everything possible to aid the said TSMC, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for said invention in all countries.

Inventor	Name:
211 / 011601	1 1044110.

Tseng Chin Lo

Residence Address:

No.26, Lane 7, Lishan St.,

Hsinchu City 30093, Taiwan (R.O.C.)

Dated: 7017	14/11

Inventor Signature

Inventor Name:

Molly Chang

Residence Address:

No. 8, Li-Hsin Rd. 6, Hsinchu Science Park

Hsinchu 300-78, Taiwan (R.O.C.)

Dated: 2017 /4/11

Inventor Signature

Inventor Name:

Ya-Wen Tseng

Residence Address:

No. 151, Nanliao St.,

Hsinchu City 300, Taiwan (R.O.C.)

Dated: 201 /4/11

Inventor Signature

15189942 1

- 2 -

Docket No.: 20160390/24061.3398US01

Customer No.: 000042717

Inventor Name:	Chih-Ting Sun	
Residence Address:	No. 8, Li-Hsin Rd. 6, Hsin Hsinchu 300-78, Taiwan (
2		
Dated: 201 / 04	114	Chih-Ting Sun Inventor Signature
Inventor Name:	Zi-Kuan Li	
Residence Address:	No. 8, Li-Hsin Rd. 6, Hsir Hsinchu 300-78, Taiwan (
Dated: >011/4/	14	Zi – Kuan Li Inventor Signature
	<u> </u>	
Inventor Name:	Bo-Sen Chang	
Residence Address:	No. 8, Li-Hsin Rd. 6, Hsir Hsinchu 300-78, Taiwan (
Dated: 2017/4/	(14	130 - Sen Chang
		Inventor Signature
Inventor Name:	Geng-He Lin	
Residence Address:	No. 8, Li-Hsin Rd. 6, Hsin Hsinchu 300-78, Taiwan (
Dated: 2017 / 4 /	14	Genoy He Lin Inventor Signature

15189942_1

RECORDED: 08/24/2023

- 3 -