504454944 07/13/2017

EPAS ID: PAT4501645

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

 SUBMISSION TYPE:
 NEW ASSIGNMENT

 NATURE OF CONVEYANCE:
 ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
CHIA-YING LEE	06/13/2013
JYU-HORNG SHIEH	06/13/2013

RECEIVING PARTY DATA

Name:	TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.
Street Address:	NO. 8, LI-HSIN RD. 6
Internal Address:	HSIN-CHU SCIENCE PARK
City:	HSIN-CHU
State/Country:	TAIWAN
Postal Code:	300-77

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15648604

CORRESPONDENCE DATA

Fax Number: (216)502-0601

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: 216-502-0600

Email:docketing@eschweilerlaw.comCorrespondent Name:ESCHWEILER & POTASHNIK, LLC

Address Line 1: ROSETTA CENTER

Address Line 2: 629 EUCLID AVE., SUITE 1000
Address Line 4: CLEVELAND, OHIO 44114

ATTORNEY DOCKET NUMBER: TSMCP257USC

NAME OF SUBMITTER: JAMES R. POTASHNIK

SIGNATURE: /James R. Potashnik/

DATE SIGNED: 07/13/2017

This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 4

source=Assignment#page1.tif source=Assignment#page2.tif

PATENT 504454944 REEL: 042994 FRAME: 0286

source=Assignment#page3.tif source=Assignment#page4.tif

U.S. Patent Appln. No. Filing Date

PATENT ASSIGNMENT

PARTIES TO THE ASSIGNMENT

Assignor(s):

Chia-Ying Lee No. 533, Xinzhuang Rd. Xinzhuang Dist. New Taipei City 242 Taiwan (R.O.C.)

Assignor(s):

Jyu-Horng Shieh 19F-3, No. 70, Da-Xue Rd. Hsin-Chu 300 Taiwan (R.O.C.)

Assignee:

Taiwan Semiconductor Manufacturing Co., Ltd. No. 8, Li-Hsin Rd. 6, Hsin-Chu Science Park Hsin-Chu, Taiwan 300-77 Republic of China

<u>AGREEMENT</u>

WHEREAS, ASSIGNOR(S) (listed above) are inventor(s) of an invention entitled

"DOUBLE PATTERNING METHOD" for which:

a non-provisional application for United States Letters Patent: was executed on even date preparatory to filing (each inventor should sign this Assignment on the same day as he/she signs the Declaration and Power of Attorney); or was filed on _____ and accorded U.S. Serial No. _____; or

☐ I hereby authorize and request my attorney associated with Customer No. 107476, to insert on the designated lines below the filing date and application

number of said application when known:

Page 1 of 4

U.S. Patent Appln. No. Filing Date

J.S. Serial No.	1
iled on	

WHEREAS, ASSIGNEE (listed above), a corporation of the Republic of China is desirous of acquiring the entire right, title and interest in and to the invention and in and to any letters patent that may be granted therefore in the United States and in any and all foreign countries;

NOW, THEREFORE, in exchange for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNOR(S) hereby sell, assign and transfer unto ASSIGNEE its successors and assigns, the entire right, title and interest in and to said invention and improvements, said application and any and all letters patent which may be granted for said invention in the United States of America and its territorial possessions and in any and all foreign countries, and in any and all divisions, reissues, re-examinations and continuations thereof, including the right to file foreign applications directly in the name of ASSIGNEE and to claim priority rights deriving from said United States application to which said foreign applications are entitled by virtue of international convention, treaty or otherwise, said invention, application and all letters patent on said invention to be held and enjoyed by ASSIGNEE and its successors and assigns for their use and benefit and of their successors and assigns as fully and entirely as the same would have been held and enjoyed by ASSIGNOR(S) had this assignment, transfer and sale not been made. ASSIGNOR(S) hereby authorize and request the Commissioner of Patents and Trademarks to issue all letters patent on said invention to ASSIGNEE. ASSIGNOR(S) agree to execute all instruments and documents required for the making and prosecution of applications for United States and foreign letters patent on said invention, for litigation regarding said letters patent, or for the purpose of protecting title to said invention or letters patent therefore.

Page 2 of 4

TSMC Docket No. TSMC2012-1378

Docket No. TSMCP257USA

U.S. Patent Appln. No. Filing Date

2017.06.17

Date

Name 1st Inventor Chia-Ying Le

TSMC Docket No. TSMC2012-1378
Docket No. TSMCP257USA

U.S. Patent Appln. No. Filing Date

Date

Name 2nd Inventor Jya-Horng Shieh

'Page 4 of 4