502519723 10/03/2013

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
I-CHANG SHIH	09/30/2013
YI-JIE CHEN	09/30/2013
CHIA-CHENG CHANG	09/30/2013
FENG-YUAN CHIU	09/30/2013
YING-CHOU CHENG	10/01/2013
CHIU HSIU CHEN	09/30/2013
BING-SYUN YEH	09/30/2013
RU-GUN LIU	09/30/2013

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:	14045138

CORRESPONDENCE DATA

Fax Number: (216)502-0601

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 216-502-0600

Email: docketing@eschweilerlaw.com

Correspondent Name: ESCHWEILER & ASSOCIATES, LLC.

Address Line 1: 629 EUCLID AVENUE, SUITE 1000

Address Line 2: NATIONAL CITY BANK BUILDING

PATENT

REEL: 031338 FRAME: 0713

DP \$40.00 14045138

502519723

Address Line 4: CLEVELAND,	OHIO 44114
ATTORNEY DOCKET NUMBER:	TSMCP339US
NAME OF SUBMITTER:	DAVID W. POTASHNIK
Signature:	/David W. Potashnik/
Date:	10/03/2013
Total Attachments: 10 source=Assignment#page1.tif source=Assignment#page3.tif source=Assignment#page4.tif source=Assignment#page5.tif source=Assignment#page6.tif source=Assignment#page7.tif source=Assignment#page8.tif source=Assignment#page8.tif source=Assignment#page9.tif source=Assignment#page9.tif	

PATENT REEL: 031338 FRAME: 0714 U.S. Patent Appln. No.

Filing Date:

PATENT ASSIGNMENT

PARTIES TO THE ASSIGNMENT

Assignor(s):

I-Chang Shih 4F.-1, No.70, Liujia 7th Rd. Zhubei City, Hsinchu County 302, Taiwan (R.O.C.)

Assignor(s):

Yi-Jie Chen No.7, Aly. 8, Ln. 137, Chengbei St. North Dist., Hsinchu City 300, Taiwan (R.O.C.)

Assignor(s):

Chia-Cheng Chang 5F., No.29, Sec. 1, Jiafeng 2nd St. Zhubei City, Hsinchu County 302, Taiwan (R.O.C.)

Assignor(s):

Feng-Yuan Chiu No.6, Ln. 16, Fugui St. Zhudong Township, Hsinchu County 310, Taiwan (R.O.C.)

Assignor(s):

Ying-Chou Cheng 7F.-2, No.21, Sec. 1, Jiafeng 11th Rd. Zhubei City, Hsinchu County 302, Taiwan (R.O.C.)

Assignor(s):

Chiu Hsiu Chen 3F., No.15, Xianzheng 13th Rd. Zhubei City, Hsinchu County 302, Taiwan (R.O.C.)

Assignor(s):

Bing-Syun Yeh No.97, Rende St. North District, Hsinchu City 300, Taiwan (R.O.C.)

TSMC Docket No. TSMC2013-0700 Docket No. TSMCP339US

U.S. Patent Appln. No. Filing Date:

Assignor(s):

Ru-Gun Liu No.90, Chenggong 5th St. Zhubei City, Hsinchu County 302, 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

"3D IMAGE PROFILING TECHNIQUES FOR LITHOGRAPHY" for which:

a n	on-provisional application for United States Letters Patent:
\boxtimes	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
	will be filed without this executed PATENT ASSIGNMENT. ASSIGNOR hereby
	authorizes and requests ASSIGNEE'S legal representatives, the attorneys
	associated with Customer No, to insert below in this document this
	APPLICATION's U.S. Serial Number and filing date, when known:
	U.S. Serial No.
	filed 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

Page 2 of 10

TSMC Docket No. TSMC2013-0700

Docket No.TSMCP339US

U.S. Patent Appln. No.

Filing Date:

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.

7013-09-30 Date Name 1st Inventor I Chang Shih

icahiha 2013/09/30 09:43:00

TSMC Docket No. TSMC2013-0700

Docket No.TSMCP339US

U.S. Patent Appln. No:

Filing Date:

2013.09.38 Date

Name 2nd Inventor Yi-Jie Chen

U.S. Patent Appln. No.

Filing Date:

TSMC Docket No. TSMC2013-0700 Docket No.TSMCP339US

1cehihm 2013/09/30 09:43:80

TSMC Docket No. TSMC2013-0700

Docket No.TSMCP339US

U.S. Patent Appln. No.

Filing Date:

2013 of 37 Date

Name

ame 4th Inventor Feng-Yuan Chiu

icahiha 2013/09/30 08:43:00

U.S. Patent Appln. No. Filing Date:

2013/10/01

Date

TSMC Docket No. TSMC2013-0700 Docket No.TSMCP339US

lame 5th Inventor Ying-Ch

U.S. Patent Appln. No.

Filing Date:

TSMC Docket No. TSMC2013-0700 Docket No.TSMCP339US

2013,9,30

OHIU - HSIU Chen
6th Inventor Chiu Hsiu Chen

icehiha 2013/09/30 09:43:00

U.S. Patent Appln. No.

Filing Date:

TSMC Docket No. TSMC2013-0700

Docket No.TSMCP339US

icahiha 2013/09/20 09:43:00

TSMC Docket No. TSMC2013-0700

Docket No.TSMCP339US

U.S. Patent Appln. No.

Filing Date:

Sep. 30, 2013

Name 8th Inventor Ru-Gun Liu

Page 10 of 10