

PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT																				
NATURE OF CONVEYANCE:	ASSIGNMENT																				
CONVEYING PARTY DATA																					
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CORRESPONDENCE DATA																					
Fax Number:	2142000853																				
Phone:	214-651-5000																				
Email:	ipdocketing@haynesboone.com																				
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i>																					
Correspondent Name:	HAYNES AND BOONE, LLP IP Section																				

OP \$40.00 13564198

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ATTORNEY DOCKET NUMBER:	24061.2080/2011-1466
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NAME OF SUBMITTER:	Rachel L. I. Davis
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Docket No.: 2011-1466 / 24061.2080
Customer No.: 42717

ASSIGNMENT

WHEREAS, we,

- (1) Chih-Tsung Shih of 7F, No. 2, Nanzhong Street, North District
Hsinchu City 300, Taiwan, R.O.C.
- (2) Pei-Chung Hsu of No. 23, Alley 12, Lane 63, Wu-Cheng Street
Taipei, Taiwan, R.O.C.
- (3) Shinn-Sheng Yu of 4F-2, No. 16, Lane 634, Nanda Road
Hsinchu, Taiwan, R.O.C.
- (4) Tsiao-Chen Wu of No. 19, Lane 180, Dalin Road
Jhudong Township, Hsinchu County 310, Taiwan, R.O.C.
- (5) Yen-Cheng Lu of 2F, No. 12, Lane 31, Sec. 1, Sanmin Road, Banqiao District
New Taipei City 220, Taiwan, R.O.C.
- (6) Shu-Hao Chang of 3F, No. 229, Raohe Street, Songshan District
Taipei City 105, Taiwan, R.O.C.
- (7) Chia-Jen Chen of No. 19-3, Sanchong 1st Road
Jhudong Township, Hsinchu County 310, Taiwan, R.O.C.
- (8) Hsin-Chang Lee of No. 121, Wen-Hua Road, Wen-Shan Li
Hsin-Pu Zhen, Hsin-Chu Xian, Taiwan, R.O.C.
- (9) Anthony Yen of 17F, 296-5 Guangming 6th Road, E. Sec. 1
Zhubei City, Hsinchu County 302, Taiwan, R.O.C.

have invented certain improvements in

PHASE SHIFT MASK FOR EXTREME ULTRAVIOLET LITHOGRAPHY AND METHOD OF FABRICATING SAME

for which we have executed an application for Letters Patent of the United States of America,

 X of even date filed herewith; and
 filed on and assigned application number ; and

WHEREAS, we authorize the attorney of record to update this document to include Patent Office information as deemed necessary (i.e., filing date, serial number, etc.);

WHEREAS, Taiwan Semiconductor Manufacturing Company, Ltd., ("TSMC"), No. 8, Li-Hsin Rd. 6, Science-Based Industrial Park Hsin-Chu, Taiwan 300-77, 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;

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

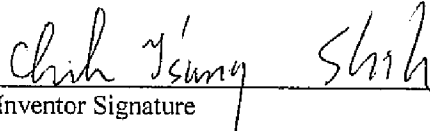
AND WE HEREBY covenant that we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith.

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: Chih-Tsung Shih

Residence Address: 7F, No. 2, Nanzhong Street, North District
Hsinchu City 300, Taiwan, R.O.C.

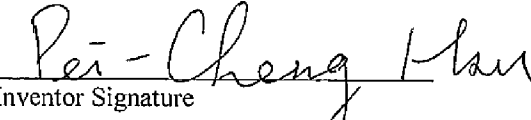
Dated: 7/16/2012


Inventor Signature

Inventor Name: Pei-Chung Hsu

Residence Address: No. 23, Alley 12, Lane 63, Wu-Cheng Street
Taipei, Taiwan, R.O.C.

Dated: 7/16/2012


Inventor Signature

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Inventor Name: Shinn-Sheng Yu

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Hsinchu, Taiwan, R.O.C.

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Shinn-Sheng Yu
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Inventor Name: Tsiao-Chen Wu

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Dated: 2012-7-16

Tsiao-Chen Wu
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Dated: 2012-7-16

Yen-Cheng Lu
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Shu-Hao Chang
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Inventor Name: Chia-Jen Chen

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Dated: 2012.7.16

Chia-Jen Chen
Inventor Signature

Inventor Name: Hsin-Chang Lee

Residence Address: No. 121, Wen-Hua Road, Wen-Shan Li
Hsin-Pu Zhen, Hsin-Chu Xian, Taiwan, R.O.C.

Dated: 2012.7.16

Hsin-Chang Lee
Inventor Signature

Inventor Name: Anthony Yen

Residence Address: 17F, 296-5 Guangming 6th Road, E. Sec. 1
Zhubei City, Hsinchu County 302, Taiwan, R.O.C.

Dated: 07/16/12

[Signature]
Inventor Signature