(Rev. 10/02) OMB No. 0651-0027 (exp. 6/30/2005)	U.S. DEPARTMENT OF COMM U.S. Patent and Trademark
To the honorable Commissioner of Patents and Trademarks:	Please record the attached original documents or copy thereof.
1. Name of conveying party(ies): Jaw-Jung Shin Li-Chun Tien King-Chang Shu Chun-Kuang Chen Mi-Chang Chang Tsai-Sheng Gau Yu-Jun Chou Burn-Jeng Lin Jan-Wen You	Name and address of receiving party(ies) Name: <u>Taiwan Semiconductor Manufacturing ComLtd.</u> Internal Address:
Additional name(s) of conveying party(ies) attached? Yes X No	
3. Nature of conveyance:	
X Assignment Merger	
Character (Autocompant)	Street Address: No. 6, Li-Hsin Rd. 6
Security Agreement Change of Name	Science-Based Industrial Park
Other	
Execution Date: <u>JJS, JWY-10/08/03; CKC, TSG, BJL, YJC, KCS, LJC-10/14/03; LCT-10/13/2003; MCC-10/15/03</u>	City: Hsin-Chu State: Taiwan Zip: 300-77 Additional name(s) & address(es) attached? Yes
10/688500 Additional numbers at	tached? Yes X No
Name and address of party to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved:
Name: Steven H. Slater	7. Total fee (37 CFR 3.41)\$_40.00
Slater & Matsil, L.L.P.	
Internal Address.	Enclosed
Internal Address:	X Authorized to be charged to deposit account
Street Address:17950 Preston Rd.	8. Deposit account number:
Suite 1000	50-1065
City: <u>Dallas</u> State: <u>Texas</u> Zip: <u>75252-5793</u>	(Attach duplicate copy of this page if paying by deposit accou
	E THIS SPACE
9. Statement and signature.	
	Formation is true and correct and any attached copy

P. O. Box 1450, Alexandria, VA 22313-1450

PATENT REEL: 014626 FRAME: 0819 FROM

2003 10/16 21:33:3

ATTORNEY DOCKET NO. TSM02-1293

ASSIGNMENT

WHEREAS, I, the undersigned inventor (or one of the undersigned joint inventors), of residence as listed, having invented certain new and useful improvements as below entitled, for which application for United States Letters Patent is made, the said application having been executed on the date set forth below; and

WHEREAS, Taiwan Semiconductor Manufacturing Company, Ltd. (TSMC), a corporation organized and existing under the laws of Taiwan, the Republic of China, with its principal office at No. 6, Li-Hsin Rd. 6, Science-Based Industrial Park, Hsin-Chu, Taiwan 300-77, R.O.C., is desirous of acquiring my entire right, title and interest in and to the said invention, and to the said application and any Letters Patent that may issue thereon in the United States and all other countries throughout the world;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, I hereby sell and assign to the said TSMC, its successors and assigns, my entire right, title and interest in and to the said invention and in to the said application and all patents which may be granted therefor, and all divisions, reissues, substitutions, continuations, and extensions thereof; and I hereby authorize and request the Commissioner for Patents to issue all patents for said invention, or patent resulting therefrom, insofar as my interest is concerned, to the said TSMC, as assignee of my entire right, title and interest. I declare that I have not executed and will not execute any agreement in conflict herewith.

I also hereby sell and assign to TSMC, its successors and assigns, my foreign rights to the invention disclosed in said application, in all countries of the world, including, but not limited to, the right to file applications and obtain patents under the terms of the International Convention for the Protection of Industrial Property, and of the European Patent Convention, and further agree to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights.

I hereby further agree that I will communicate to said TSMC, or to its successors, assigns, and legal representatives, any facts known to me respecting said invention or the file history thereof, and at the expense of said assignee company, testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, reissue and substitute applications, make all lawful oaths, and generally do everything possible to aid said TSMC, its successors, assigns and nominees to obtain and enforce proper patent protection for said invention in all countries.

IN WITNESS WHEREOF, I hereunto set my hand and seal this day and year:

TITLE OF INVENTION	Method Of Defining Forbidden Pitches For A Lithography Exposure Tool			
SIGNATURE OF INVENTOR AND NAME	Jaw-Jeng Shin- Jaw-Jung Shin	Chun-kuang Chen Chun-Kuang Chen	Sir Shangfun Tsai-Sheng Gau	Burn-Jeng Lin
DATE	1º/8/2003	10/14/2003	10/14/2003	VOUT 14, 2003
RESIDENCE (City, County, State)	Hsin-Chu, Taiwan R.O.C.	Taoyuang, Taiwan R.O.C.	San-Chung City, Talpei	Hsin-Chu, TAIWAN R.O.C.

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Assignment

PATENT REEL: 014626 FRAME: 0820

ATTORNEY DOCKET NO. TSM02-1293

ASSIGNMENT

WHEREAS, I, the undersigned inventor (or one of the undersigned joint inventors), of residence as listed, having invented certain new and useful improvements as below entitled, for which application for United States Letters Patent is made, the said application having been executed on the date set forth below; and

WHEREAS, Taiwan Semiconductor Manufacturing Company, Ltd. (TSMC), a corporation organized and existing under the laws of Taiwan, the Republic of China, with its principal office at 121, Park Avenue 3, Science-Based Industrial Park, Hsin-Chu, Taiwan 300, R.O.C., is desirous of acquiring my entire right, title and interest in and to the said invention, and to the said application and any Letters Patent that may issue thereon in the United States and all other countries throughout the world;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, I hereby sell and assign to the said TSMC, its successors and assigns, my entire right, title and interest in and to the said invention and in to the said application and all patents which may be granted therefor, and all divisions, reissues, substitutions, continuations, and extensions thereof; and I hereby authorize and request the Commissioner for Patents to issue all patents for said invention, or patent resulting therefrom, insofar as my interest is concerned, to the said TSMC, as assignee of my entire right, title and interest. I declare that I have not executed and will not execute any agreement in conflict herewith.

I also hereby sell and assign to TSMC, its successors and assigns, my foreign rights to the invention disclosed in said application, in all countries of the world, including, but not limited to, the right to file applications and obtain patents under the terms of the International Convention for the Protection of Industrial Property, and of the European Patent Convention, and further agree to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights.

I hereby further agree that I will communicate to said TSMC, or to its successors, assigns, and legal representatives, any facts known to me respecting said invention or the file history thereof, and at the expense of said assignee company, testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, reissue and substitute applications, make all lawful oaths, and generally do everything possible to aid said TSMC, its successors, assigns and nominees to obtain and enforce proper patent protection for said invention in all countries.

IN WITNESS WHEREOF, I hereunto set my hand and seal this day and year;

TITLE OF INVENTION	Method Of Defining Forbidden Pitches For A Lithography Exposure Tool			
SIGNATURE OF INVENTOR AND NAME	Li-Chun Jier Li-Chun Tien	Mi-Chang Chang	yn-Jun Chou	Jan-Wen You
DATE	10/13/2003	(0/15/2003	10/14/2003	10/8/2003
RESIDENCE (City, County, State)	Hsin-Chu, Taiwan, R.O.C.	Hsin-Chu, Taiwan, R.O.C.	Taipei, Taiwan R.O.C.	Taoyuang, Taiwan, R.O.C.

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Assignment

PATENT REEL: 014626 FRAME: 0821 17-OCT-2003 10:38 FROM

ATTORNEY	DOCKET	NO.
TSM02-1293	ļ.	

ASSIGNMENT

WHEREAS, I, the undersigned inventor (or one of the undersigned joint inventors), of residence as listed, having invented certain new and useful improvements as below entitled, for which application for United States Letters Patent is made, the said application having been executed on the date set forth below; and

WHEREAS, Taiwan Semiconductor Manufacturing Company, Ltd. (TSMC), a corporation organized and existing under the laws of Talwan, the Republic of China, with its principal office at 121, Park Avenue 3, Science-Based Industrial Park, Hsin-Chu, Taiwan 300, R.O.C., is desirous of acquiring my entire right, title and interest in and to the said invention, and to the said application and any Letters Patent that may issue thereon in the United States and all other countries throughout the world;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, I hereby sell and assign to the said TSMC, its successors and assigns, my entire right, title and interest in and to the said invention and in to the said application and all patents which may be granted therefor, and all divisions, reissues, substitutions, continuations, and extensions thereof; and I hereby authorize and request the Commissioner for Patents to issue all patents for said invention, or patent resulting therefrom, insofar as my interest is concerned, to the said TSMC, as assignee of my entire right, title and interest. I declare that I have not executed and will not execute any agreement in conflict herewith.

I also hereby sell and assign to TSMC, its successors and assigns, my foreign rights to the invention disclosed in said application, in all countries of the world, including, but not limited to, the right to file applications and obtain patents under the terms of the International Convention for the Protection of Industrial Property, and of the European Patent Convention, and further agree to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights.

I hereby further agree that I will communicate to said TSMC, or to its successors, assigns, and legal representatives, any facts known to me respecting said invention or the file history thereof, and at the expense of said assignee company, testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, reissue and substitute applications, make all lawful oaths, and generally do everything possible to aid said TSMC, its successors, assigns and nominees to obtain and enforce proper patent protection for said invention in all countries.

IN WITNESS WHEREOF, I hereunto set my hand and seal this day and year;

TITLE OF INVENTION	Method Of Defining Forbidden Pitches For A Lithography Exposure Tool		
SIGNATURE OF INVENTOR AND NAME	King-Chang Shu King-Chang Shu	Li-Jui Chen	
DATE	10/14/2003	10/14/2003	
RESIDENCE (City, County, State)	Taipei, Taiwan, R.O.C.	Hsin-Chu, Taiwan, R.O.C.	

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Assignment

TOTAL P.06

PATENT REEL: 014626 FRAME: 0822

RECORDED: 10/17/2003