505027146 07/30/2018

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date		
BIN-MING BENJAMIN TSAI	03/10/2015		
ORESTE DONZELLA	03/06/2015		
PRADEEP VUKKADALA	03/10/2015		
JAYDEEP SINHA	03/10/2015		

RECEIVING PARTY DATA

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PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16049266

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NAME OF SUBMITTER:	MATTHEW A. POULSEN
SIGNATURE:	/matthew a poulsen/
DATE SIGNED:	07/30/2018

Total Attachments: 6

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PATENT 505027146 REEL: 046504 FRAME: 0045

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> PATENT REEL: 046504 FRAME: 0046

Please return signed/Recorded to:

CUSTOMER No. 78238
Sean Patrick Suiter
SUITER • SWANTZ PC LLO
14301 FNB Parkway, Suite 220
Omaha, NE 68154-5299

ASSIGNMENT OF U.S. PATENT APPLICATION (sole or joint inventor(s))

WHEREAS, the undersigned, to wit:

- 1. Bin-Ming Benjamin Tsai
- 2. Oreste Donzella
- 3. Pradeep Vukkadala
- 4. Jaydeep Sinha

(hereinafter	collectively ASSIGNOR), have made application for United States Letters Patent
(a) <u>X</u>	which was executed and is being filed herewith in the United States Patent and
	Trademark Office, titled PREDICTION BASED CHUCKING AND LITHOGRAPHY
	CONTROL OPTIMIZATION
(b)	which was filed on and titled
(c)	which was filed on and known as Appln. No., titled PREDICTION BASED
	CHUCKING AND LITHOGRAPHY CONTROL OPTIMIZATION

AND WHEREAS, KLA-Tencor Corporation (hereinafter ASSIGNEE), organized and existing under the laws of Delaware, and having its principal place of business at One Technology Drive, Milpitas, CA 95035, is desirous of acquiring our entire right, title and interest in and to the invention, and in and to the said application and any Patent that may issue thereon:

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, ASSIGNOR does hereby sell, assign and transfer unto ASSIGNEE, its successors, assigns and legal representatives its entire right, title and interest in and to said invention and in and to said application and all patents which may be granted therefore, and all divisions, reissues, substitutions, continuations, continuations-in-part and extensions thereof; and ASSIGNOR hereby authorizes and requests the Commissioner of Patents and Trademarks to issue all patents for said invention, or patents resulting therefrom, insofar as ASSIGNOR's interest is concerned, to the said ASSIGNEE of ASSIGNOR's entire right, title and interest.

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ASSIGNOR also hereby sells and assigns to said ASSIGNEE, its successors, assigns and legal representatives the full and exclusive rights, title and interest to the invention disclosed in said application throughout the world, including the right to file applications and obtain patents, utility models, industrial models and designs for said invention in its own name throughout the world including all rights of priority, all rights to publish cautionary notices reserving ownership of said invention and all rights to register said invention in appropriate registries; and

ASSIGNOR further agrees to execute any and all powers of attorney, applications, assignments, declarations, affidavits, and any other papers in connection therewith necessary to perfect such rights, title and interest in ASSIGNEE, its successors, assigns and legal representatives.

ASSIGNOR hereby further agrees to communicate with said ASSIGNEE, or its successors, assigns and legal representatives, any facts known to us respecting any improvements; and, at the expense of said ASSIGNEE, to testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, continuation-in-part, reissue and substitute applications, make all lawful oaths, and generally do everything possible to vest title in said ASSIGNEE and to aid said ASSIGNEE, its successors, assigns and legal representatives to obtain and enforce proper protection for said invention in all countries.

ASSIGNOR hereby grant(s) the firm of SUITER • SWANTZ PC LLO or its agents the power to insert on this assignment any further identification, including but not limited to application number(s) and filing dates, which may be necessary or desirable in order to comply with any rule or request of the United States Patent and Trademark office for the purposes of recording this document.

First Inventor's Signature DATE

Bin-Ming Benjamin Tsai
Inventor's Printed Name

Witness Signature: Mania Taevivo

Witness Address: Technology (Adding)

IN WITNESS WHEREOF, we have hereunto signed our names on the day and year set

IN WITNESS WHEREUR, forth below.	we have hereunto signed our names on the day and year set
Out & Sound	3/6/2015
Second Inventor's Signature	DATE
Oreste Donzella Inventor's Printed Name	novavier
Witness Signature:	J/med
Witness Printed Name:	Pradech Waxendala
Witness Address:	Lio Murray Cons
	the committee and S

IN WITNESS WHE forth below.	REOF, we have	hereunto	signed or	ur names	on the	e day	and	year	set
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Third Inventor's Signatur	'e	DATE	tida and timbrican dense and time	inniuiseleigyynnisi					
<u>Pradeep Vukkadala</u> Inventor's Printed Name									
Witness Signature:	Solvan 9		· · · · · · · · · · · · · · · · · · ·		ara panakanana	,			
Witness Printed Name:	JOHAM B		**********************	on the second					
Witness Address:	39535 GAL	LAUDET			a inglica pianaina				

IN WITNESS WHEREOF, forth below.	we have hereunto	signed our	names	on the	day	and	year	set
L-Eil.	03-10	1-2015						
Fourth Inventor's Signature	DATE	186 b 1 + + + + + + + + + + + + + + + + + +	······································					
<u>Jaydeep Sinha</u> Inventor's Printed Name								
Witness Signature:	Offinder!		······································					
Witness Printed Name:	Radak Vak	Keelala						
Witness Address:	HOIMULAY Fremon LA	***************************************	***************************************	***************************************				
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