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PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
TSE NGA NG	09/30/2015
PING MEI	09/30/2015
STEVEN E. READY	10/02/2015

RECEIVING PARTY DATA

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City:	PALO ALTO
State/Country:	CALIFORNIA
Postal Code:	94304

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14873568

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ATTORNEY DOCKET NUMBER:	20140006US01/XER3266US01
NAME OF SUBMITTER:	MARK S. SVAT
SIGNATURE:	/Mark S. Svat/
DATE SIGNED:	10/02/2015

Total Attachments: 3

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> **PATENT REEL: 036716 FRAME: 0243** 503507264

Attorney File No.: 20140006US01-XER3266US01

ASSIGNMENT

The undersigned is/are the named inventor(s) (the "Inventor(s)") on a United States patent application entitled **DESIGN PROTOCOL FOR ASSIGNING FEATURES AND TUNING RESOLUTION IN DIGITAL LITHOGRAPHY** (the "Application") for inventions disclosed or claimed therein (the "Invention(s)"), which Application:

 ☒ is being executed concurrently herewith, ☒ was first executed on 	
☐ was filed on as Application Number☐ claims the benefit of U.S. Provisional Application	n(s) No(s). filed .
Palo Alto Research Center Incorporated, a Delaware Corassigns, and its legal representatives ("PARC"), is en Invention(s), and the full cooperation of the Inventor(s).	poration, on behalf of itself, its successors and titled to all rights in the Application and the
For valuable consideration, the receipt of which is hereby assign(s), and transfer(s) to PARC the entire and exclusing the Invention(s), in and for the United States, its territapplications, patents, design registrations and publications all priority rights under all present or future conventions at which priority is claimed in the Application; and	/e right, title and interest in the Application and tories, and all foreign countries, including all obtained or derived therefrom, world wide, and
 request the U.S. Commissioner of Patents to issue all agree that PARC may apply for and receive all foreign agree to execute all papers and take all actions n requested by PARC; and authorize PARC to subsequently enter the Application entered above. 	Letters Patent thereon; ecessary or desirable in connection therewith
Tse Nga Ng	9/30/15 DATE
	•
Ping Mei	DATE

DATE

Steven E. Ready

PATENT REEL: 036716 FRAME: 0244 Attorney File No.: 20140006US01-XER3266US01

ASSIGNMENT

The undersigned is/are the named inventor(s) (the "Inventor(s)") on a United States patent application entitled DESIGN PROTOCOL FOR ASSIGNING FEATURES AND TUNING RESOLUTION IN DIGITAL LITHOGRAPHY (the "Application") for inventions disclosed or claimed therein (the "Invention(s)"), which Application:

 ☑ is being executed concurrently herewith, ☐ was first executed on ☐ was filed on ☐ claims the benefit of U.S. Provisional Application 	ion(s) No(s). filed .
Palo Alto Research Center Incorporated, a Delaware Coassigns, and its legal representatives ("PARC"), is elevention(s), and the full cooperation of the Inventor(s).	orporation, on behalf of itself, its successors and ntitled to all rights in the Application and the
For valuable consideration, the receipt of which is herel assign(s), and transfer(s) to PARC the entire and exclusion the Invention(s), in and for the United States, its temapplications, patents, design registrations and publication all priority rights under all present or future conventions which priority is claimed in the Application; and	ritories, and all foreign countries, including all a sobtained or derived therefrom, world wide, and
 (1) request the U.S. Commissioner of Patents to issue at agree that PARC may apply for and receive all foreign agree to execute all papers and take all actions requested by PARC; and (4) authorize PARC to subsequently enter the Application entered above. 	in Letters Patent thereon; necessary or desirable in connection therewith
Tse Nga Ng	DATE .
Price	9/30/2015
Ping Mei	DATE
Steven E. Ready	DATE

PATENT REEL: 036716 FRAME: 0245 Attorney File No.: 20140006US01-XER3266US01

ASSIGNMENT

The undersigned is/are the named inventor(s) (the "inventor(s)") on a United States patent application entitled DESIGN PROTOCOL FOR ASSIGNING FEATURES AND TUNING RESOLUTION IN DIGITAL LITHOGRAPHY (the "Application") for inventions disclosed or claimed therein (the "Invention(s)"), which Application:

(3)	agree to execute all papers and take all actions necessary or desirable in connection therewith requested by PARC; and authorize PARC to subsequently enter the Application Number on this Assignment, if not already entered above. Nga Ng DATE
(3)	agree to execute all papers and take all actions necessary or desirable in connection therewith requested by PARC; and authorize PARC to subsequently enter the Application Number on this Assignment, if not already entered above.
(3)	agree to execute all papers and take all actions necessary or desirable in connection therewith requested by PARC; and authorize PARC to subsequently enter the Application Number on this Assignment, if not already
	agree to execute all papers and take all actions necessary or desirable in connection therewith
(Æ)	
(1) (2)	request the U.S. Commissioner of Patents to issue all U.S. Letters Patent granted thereon to PARC; agree that PARC may apply for and receive all foreign Letters Patent thereon;
the appl all p	Invention(s), in and for the United States, its territories, and all foreign countries, including all lications, patents, design registrations and publications obtained or derived therefrom, world wide, and priority rights under all present or future conventions and treaties, and any provisional applications for the priority is claimed in the Application; and
For	valuable consideration, the receipt of which is hereby acknowledged, the Inventor(s) hereby sell(s), gn(s), and transfer(s) to PARC the entire and exclusive right, title and interest in the Application and
assi	Alto Research Center Incorporated, a Delaware Corporation, on behalf of itself, its successors and igns, and its legal representatives ("PARC"), is entitled to all rights in the Application and the ention(s), and the full cooperation of the Inventor(s).
	claims the benefit of U.S. Provisional Application(s) No(s).
	was first executed on was filed on as Application Number .

PATENT REEL: 036716 FRAME: 0246

RECORDED: 10/02/2015