

## PATENT ASSIGNMENT COVER SHEET

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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
Ulrich Weber	02/08/2011
Stefan Hembacher	02/01/2011
Armin Schoeppach	01/27/2011
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	CARL ZEISS SMT GMBH
<b>Street Address:</b>	RUDOLF-EBER-STRASSE 2
<b>City:</b>	OBERKOCHEN
<b>State/Country:</b>	GERMANY
<b>Postal Code:</b>	73447
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	14840394
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(877)769-7945
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<b>ATTORNEY DOCKET NUMBER:</b>	42047-0041003
<b>NAME OF SUBMITTER:</b>	GINA MALDONADO
<b>SIGNATURE:</b>	/Gina Maldonado/
<b>DATE SIGNED:</b>	09/03/2015
<b>Total Attachments: 4</b>	
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ASSIGNMENT

For valuable consideration, we, ULRICH WEBER of Rosensteinweg 43, 89075 Ulm, Germany, STEFAN HEMBACHER of Bussardweg 7, 86399 Bobingen, Germany, ARMIN SCHOEPPACH of Schlehenweg 50, D-73431 Aalen, Germany, hereby assign to: Carl Zeiss SMT GmbH, a corporation of Germany having a place of business at:

Rudolf-Eber-Strasse 2  
73447 Oberkochen  
Germany; and

its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title and interest throughout the world in the inventions and improvements which are subject of an application for United States Patent signed by us, entitled ACTUATORS AND MICROLITHOGRAPHY PROJECTION EXPOSURE SYSTEMS AND METHODS USING THE SAME, filed 1/19/2011, and assigned U.S. Serial Number 13/009,438, this assignment including said application, any and all United States and foreign patents, utility models, and design registrations granted for any of said inventions or improvements, and the right to claim priority based on the filing date of said application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and we authorize the Assignee to apply in all countries in our name or in its own name for patents, utility models, design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements; and we agree for ourselves and our respective heirs, legal representatives and assigns, without further compensation to perform such lawful acts and to sign such further applications, assignments, Preliminary Statements and other lawful documents as the Assignee may reasonably request to effectuate fully this assignment.

Date: Feb. 08. 2011

  
ULRICH WEBER

Witnessed by:

Name: A. Hembacher

Date: Feb. 8, 2011

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

\_\_\_\_\_  
STEFAN HEMBACHER

Witnessed by:

Name: \_\_\_\_\_

Date: \_\_\_\_\_

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ARMIN SCHOEPPACH

Witnessed by:

Name: \_\_\_\_\_

Date: \_\_\_\_\_

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ULRICH WEBER

Witnessed by:

Name: \_\_\_\_\_

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Date: \_\_\_\_\_

Date: 2. 1. 11

Stefan Hembacher  
STEFAN HEMBACHER

Witnessed by:

Name: Edith Ley

Date: February 1, 2011

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

\_\_\_\_\_  
ARMIN SCHOEPPACH

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Date: \_\_\_\_\_

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ULRICH WEBER

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STEFAN HEMBACHER

Witnessed by:

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Date: Jan 27, 2011

  
ARMIN SCHOEPFACH

Witnessed by:

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_

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