RECORDATION  
PA

03-08-2007



103380324

Mail Stop Assignment Recordation Services  
DIRECTOR OF THE US PATENT AND TRADEMARK OFFICE  
P.O. Box 1450  
Alexandria, VA 22313-1450

Please record the attached original documents or copies thereof.

1. Name of conveying party(ies): **Wolfgang SINGER, Johannes WANGLER,  
Markus DEGUNTHER, Birgit KUERZ, and  
Christoph MENKE**

2. Name and address of receiving party(ies): **CARL ZEISS SMT AG  
Carl-Zeiss-Strasse 22  
73447 Oberkochen, Germany**

3. Nature of conveyance:  
**XXXX** Assignment \_\_\_\_\_ Merger  
\_\_\_\_\_ Security Agreement \_\_\_\_\_ Change of Name  
\_\_\_\_\_ Other: \_\_\_\_\_  
Execution Date: **Jan. 30, 2006; Feb. 6, 2006; Feb. 7, 2006; Feb. 11, 2006 and  
Jan. 26, 2006 respectively.**

4. Application number(s) or application date(s):  
If this document is being filed together with a new application, the execution date of the application is:

A. Application/Patent No.  
**11/598,180**

B. Application/Issue Date  
**November 10, 2006**

5. Name and address of party to whom correspondence concerning this document should be mailed:

Charles N.J. Ruggiero  
Ohlandt, Greeley, Ruggiero & Perle, L.L.P.  
One Landmark Square, 10<sup>th</sup> Floor  
Stamford, Connecticut 06901-2682 U.S.A.

6. Total No. of applications and patents involved: 1.

7. Total Fee (37 C.F.R. 3.41(h)) \$40.00/assignment.

**XXXXX CUSTOMER NO.: 27623**

**XXXXX** Enclosed

Authorized to be charged to deposit account.

The Commissioner is hereby authorized to charge any additional fees under 37 C.F.R. 3.41 that may be required with this communication or credit any overpayment, to Deposit Account No. **01-0467**. A duplicate copy of this Form is enclosed.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Charles N.J. Ruggiero  
Name of Person Signing

Signature

2/28/07  
Date

Total number of pages including cover sheet, attachments and document: 14.

**PATENT**  
**REEL: 019008 FRAME: 0231**

## **ASSIGNMENT**

FOR valuable and legally sufficient considerations, receipt of which is hereby acknowledged, we, **Wolfgang SINGER**, a citizen of Germany, and a resident of Egerlandstrasse 45, 73431 Aalen, Germany, **Johannes WANGLER**, a citizen of Germany, and a resident of An der Rente 15, 89551 Koenigsbronn, Germany, **Markus DEGUENTHER**, a citizen of Germany, and a resident of Liebigstrasse 2, 73432 Aalen, Germany, **Birgit KUERZ**, a citizen of Germany, and a resident of Zeppelinstrasse 69, 73430 Aalen, Germany and **Christoph MENKE**, a citizen of Germany, and a resident of Henschelweg 3, 73447 Aalen, Germany have co-invented certain new and useful improvements in

### **OPTICAL DEVICE WITH RASTER ELEMENTS, AND ILLUMINATION SYSTEM WITH THE OPTICAL DEVICE**

hereby assign to CARL ZEISS SMT AG, a German corporation having its principal office at Carl-Zeiss-Strasse 22, 73447 Oberkochen, Germany (hereinafter referred to as "Assignee"), the entire right, title and interest in and to such invention, together with the patent rights and rights of protection to the same throughout the world, including any patent rights which may result from the application for United States Letters Patent which was filed in the United States Patent and Trademark Office on **November 10, 2006** and assigned U.S. Patent Application Serial No. **11/598,180**, and any continuation, divisions, continuation-in-part applications, inventor's certificates and extensions thereof, preparatory to obtaining Letters Patent of the United States therefor; said invention, application and Letters Patent to be held and enjoyed by said Assignee for its own use and behoof and for the use and behoof of its successors and assigns, to the full end of the term for which said Letters Patent or other rights of protection may be granted as entirely as the same would have been held and enjoyed by us had the assignment not been made.

AND WE COVENANT and AGREE and WARRANT that we have full and unencumbered title to the invention hereby assigned, and we further covenant and

agree that we have the right to grant such rights to said invention and application and Letters Patent and that we will, at any time upon request without cost to us or further compensation, execute and deliver any and all papers or instruments that, in the opinion of the Assignee, may be necessary or desirable to secure said Assignee the full enjoyment of the rights and properties herein conveyed or intended to be conveyed by this instrument.

IN WITNESS WHEREFORE, we have hereunto set our hands and seal:

Date: Jan 20, 2007

By: W. Singer  
Wolfgang SINGER


Date: JAN - 30 -, 2007

[Signature]  
Witness Signature

LUMPP SABINE  
Witness Printed Name  
GE SMT AG  
Carl Zeiss SMT AG  
SMT-G  
Rudolf-Eber-Str. 2  
D-73447 Oberkochen

By: Johannes Wangler  
Johannes WANGLER

Date: FEB - 6 -, 2007

  
\_\_\_\_\_  
Witness Signature

LUNPP, SABINE  
Witness Printed Name


**Witness Address**

**Carl Zeiss SMT AG**  
SMT-G  
Rudolf-Eber-Str. 2  
D-73447 Oberkochen

Date: FEB - 7 -, 2007

By: Markus DEGUENTHER

Date: FEB - 7 - 2007

 \_\_\_\_\_  
Witness Signature

LUNFP, SABINE  
Witness Printed Name

Witness Address

**Carl Zeiss SMT AG**  
SMT-G  
Rudolf-Eber-Str. 2  
D-73447 Oberkochen

Date: \_\_\_\_\_, 2007

By: **Birgit KUERZ**

Date: \_\_\_\_\_, 2007

\_\_\_\_\_  
Witness Signature

\_\_\_\_\_  
Witness Printed Name

\_\_\_\_\_  
Witness Address

Date: 26. January, 2007

Christoph Menke  
By: **Christoph MENKE**

Date: \_\_\_\_\_, 2007

\_\_\_\_\_  
Witness Signature

\_\_\_\_\_  
Witness Printed Name

\_\_\_\_\_  
Witness Address

Date: FEB - 11, 2007

Birgit Kuerz  
By: **Birgit KUERZ**

Date: \_\_\_\_\_, 2007

\_\_\_\_\_  
Witness Signature

\_\_\_\_\_  
Witness Printed Name

\_\_\_\_\_  
Witness Address

Date: \_\_\_\_\_, 2007

\_\_\_\_\_  
By: **Christoph MENKE**

Date: \_\_\_\_\_, 2007

\_\_\_\_\_  
Witness Signature

\_\_\_\_\_  
Witness Printed Name

\_\_\_\_\_  
Witness Address