

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT2721519

SUBMISSION TYPE:	NEW ASSIGNMENT										
NATURE OF CONVEYANCE:	ASSIGNMENT										
CONVEYING PARTY DATA											
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>RIGO HEROLD</td> <td>12/16/2013</td> </tr> <tr> <td>BERND RICHTER</td> <td>01/06/2014</td> </tr> <tr> <td>UWE VOGEL</td> <td>12/13/2013</td> </tr> </tbody> </table>		Name	Execution Date	RIGO HEROLD	12/16/2013	BERND RICHTER	01/06/2014	UWE VOGEL	12/13/2013		
Name	Execution Date										
RIGO HEROLD	12/16/2013										
BERND RICHTER	01/06/2014										
UWE VOGEL	12/13/2013										
RECEIVING PARTY DATA											
<table border="1"> <tr> <td>Name:</td> <td>FRAUNHOFER-GESELLSCHAFT ZUR FÖRDERUNG DER ANGEWANDTEN FORSCHUNG E.V.</td> </tr> <tr> <td>Street Address:</td> <td>HANSASTRASSE 27C</td> </tr> <tr> <td>City:</td> <td>MÜNCHEN</td> </tr> <tr> <td>State/Country:</td> <td>GERMANY</td> </tr> <tr> <td>Postal Code:</td> <td>80686</td> </tr> </table>		Name:	FRAUNHOFER-GESELLSCHAFT ZUR FÖRDERUNG DER ANGEWANDTEN FORSCHUNG E.V.	Street Address:	HANSASTRASSE 27C	City:	MÜNCHEN	State/Country:	GERMANY	Postal Code:	80686
Name:	FRAUNHOFER-GESELLSCHAFT ZUR FÖRDERUNG DER ANGEWANDTEN FORSCHUNG E.V.										
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PROPERTY NUMBERS Total: 1											
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>14122970</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	14122970						
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Application Number:	14122970										
CORRESPONDENCE DATA											
<p>Fax Number:</p> <p>Email: request@slwip.com</p> <p><i>Correspondence will be sent via US Mail when the email attempt is unsuccessful.</i></p> <p>Correspondent Name: SCHWEGMAN, LUNDBERG &amp; WOESSNER, P.A.</p> <p>Address Line 1: P.O. BOX 2938</p> <p>Address Line 4: MINNEAPOLIS, MINNESOTA 55402</p>											
ATTORNEY DOCKET NUMBER:	3037.112US1										
NAME OF SUBMITTER:	KASIE GROVER										
Signature:	/Kasie Grover/										
Date:	02/11/2014										

PATENT

Total Attachments: 6

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RECORDATION FORM COVER SHEET  
PATENTS ONLY

Atty Ref/Docket No.: 3037.112US1

Patent and Trademark Office

To the Director of the U.S. Patent and Trademark Office: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

Rigo Herold, Bernd Richter, Uwe Vogel

Additional name(s) of conveying party(ies) attached?

☐ Yes ☒ No

3. Nature of conveyance:

☒ Assignment

☐ Merger

☐ Security Agreement ☐ Change of Name

☐ Other

Execution Date: December 16, 2013, January 6, 2014,  
December 13, 2013

2. Name and address of receiving party(ies):

Name: Fraunhofer-Gesellschaft zur Förderung der  
angewandten Forschung e.V.

Street Address: Hansastrasse 27c

City: München, 80686

Country: Germany

Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s)

B. Patent No.(s)

Serial No. 14/122,970

Additional numbers attached? ☐ Yes ☒ No

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

Name: Suneel Arora

Address:

Schwegman, Lundberg & Woessner, P.A.

P.O. Box 2938

Minneapolis, MN 55402--0938

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41):\$ 0.00

☐ Enclosed

☐ Authorized to be charged to deposit account 19-  
0743

8. Please charge any additional fees or credit any over  
payments to our Deposit Account No.: 19-0743

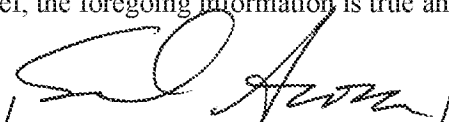
DO NOT USE THIS SPACE

9. Statement and signature.

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.

Suneel Arora/Reg. No. 42,267

Name of Person Signing



Signature

February 10, 2014

Date

Total number of pages including cover sheet: 6

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents and Trademarks

Mail Stop Assignment Recordation Services

P.O. Box 1450

Alexandria, VA 22313-1450

PATENT  
REEL: 032190 FRAME: 0343

### ASSIGNMENT

WHEREAS, Rigo Herold, Bernd Richter and Uwe Vogel (hereinafter the "Undersigned") have made one or more inventions and other subject matter (hereinafter collectively referred to as the "Invention") which are described in a patent application filed on November 27, 2013, which application was assigned US patent application serial number 14/122,970, and which is titled BIDIRECTIONAL DISPLAY AND TRIGGERING THEREOF; which are described in a patent application filed on May 31, 2011, which application was assigned PCT application serial number PCTDE2011001181, and which is titled BIDIREKTIONALES DISPLAY UND ANSTEUERUNG DESSELBEN.

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency, and adequacy of which are hereby acknowledged by the Undersigned, the Undersigned do hereby irrevocably and unconditionally:

CONVEY, ASSIGN, AND TRANSFER to Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e.V. (the "Assignee"), having a place of business at Hansastrasse 27c, München 80686, Germany, the Undersigned's entire right, title, and interest for the United States and all foreign countries and jurisdictions in and to:

- the Invention which is disclosed in the above-identified application or applications;

- such application or applications, and all divisional, continuing (including continuation-in-part), substitute, renewal, reissue, and all other applications for a patent or patents which have been or shall be filed in the United States (including all provisional and non-provisional applications), and in all foreign countries and jurisdictions based in whole or in part on any of such Invention (including any application for a utility model or an innovation patent application);

- all original and reissued patents which have been or shall be issued in the United States and all foreign countries and jurisdictions based in whole or in part on any of such Invention;

- including the right to claim priority to the above-identified patent application or applications in relation to subject matter based in whole or in part on the above-identified patent application or applications and any of the foregoing including the right to file foreign applications under the provisions of any convention or treaty;

- and including the right to all causes of action, remedies, and other enforcement rights related to the above-identified application or applications, including without limitation the right to sue for past, present, or future infringement, misappropriation, or violation of any and all rights related to the above-identified patent application or applications and any of the foregoing, including the right to obtain and collect damages for past, present, or future infringement;

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such Invention to the Assignee;

AUTHORIZE AND REQUEST that any attorney associated with U.S. Patent and Trademark Office (USPTO) Customer No. 21186 may (directly or through his/her designee) delete, insert, or alter any

**Assignment**

Assignors: Rigo Herold et al.

Title: BIDIRECTIONAL DISPLAY AND TRIGGERING THEREOF

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information related to the above-identified patent application or applications or any of the foregoing, after execution of this Assignment;

WARRANT AND COVENANT that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or shall be made to others by the Undersigned, and that the full right to convey the same as herein expressed is possessed by the Undersigned;

COVENANT, that when requested and without compensation, but at the expense of the Assignee, in order to carry out in good faith the intent and purpose of this Assignment, the Undersigned shall (1) execute all provisional, non-provisional, divisional, continuing (including continuation-in-part), substitute, renewal, reissue, and all other patent applications for the Invention; (2) execute all rightful oaths, declarations, assignments, powers of attorney and other papers for the Invention; (3) communicate to the Assignee all facts known to the Undersigned relating to the Invention and the history thereof; (4) cooperate with the Assignee in any interference, reexamination, reissue, opposition, dispute, or litigation involving any of the applications or patents for the Invention; and (5) take such further actions as the Assignee shall reasonably consider necessary or desirable for vesting title to such Invention in the Assignee, or for securing, maintaining and enforcing proper patent protection for the Invention;

COVENANT, that should any provision of this agreement be held unenforceable by an authority of competent jurisdiction, such a ruling shall not affect the validity and enforceability of the remaining provisions. To the extent that any such provision is found to be unenforceable, the Undersigned, when requested and without compensation shall act in good faith to substitute for such provision a new provision with content and purpose as close as possible to the provision deemed unenforceable.

THIS AGREEMENT IS TO BE BINDING on the heirs, assigns, representatives, and successors of the Undersigned, and is to extend to the benefit of the successors, assigns, and nominees of the Assignee.

AGREED as of the date of my signature below:

**Assignment**

Assignors: Rigo Herold et al.

Title: BIDIRECTIONAL DISPLAY AND TRIGGERING THEREOF

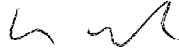
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Docket No: 3037.112US1  
Client Ref. No. 138P 1987 GB/ZH

**Assignor:**

(Signature):



Name: Rigo Herold

City/State: Dresden, Germany

Date:

16.12.2011

**Assignment**

Assignors: Rigo Herold et al.

Title: BIDIRECTIONAL DISPLAY AND TRIGGERING THEREOF

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Docket No: 3037.112US1  
Client Ref. No. 138P 1987 GB/ZH

**Assignor:**

(Signature):



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Name: Bernd Richter

City/State: Dresden, Germany

Date:

6. 1. 2014

**Assignment**

Assignors: Rigo Herold et al.

Title: BIDIRECTIONAL DISPLAY AND TRIGGERING THEREOF

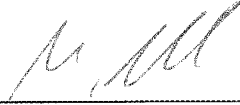
Page 5 of 5

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Docket No: 3037.112US1  
Client Ref. No. 138P 1987 GB/ZH

**Assignor:**

(Signature):



Name: Uwe Vogel

City/State: Dresden, Germany

Date:

13/12/16