

## PATENT ASSIGNMENT

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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>Takanori YAMAMOTO</td> <td>11/04/2011</td> </tr> <tr> <td>Hideki YONEKURA</td> <td>11/04/2011</td> </tr> <tr> <td>Kenji YANAGISAWA</td> <td>11/04/2011</td> </tr> <tr> <td>Kazunao YAMAMOTO</td> <td>11/04/2011</td> </tr> </tbody> </table>		Name	Execution Date	Takanori YAMAMOTO	11/04/2011	Hideki YONEKURA	11/04/2011	Kenji YANAGISAWA	11/04/2011	Kazunao YAMAMOTO	11/04/2011
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RECEIVING PARTY DATA											
<table border="1"> <tr> <td>Name:</td> <td>Shinko Electric Industries Co., Ltd.</td> </tr> <tr> <td>Street Address:</td> <td>80, Oshimada-machi,</td> </tr> <tr> <td>City:</td> <td>Nagano-shi, Nagano</td> </tr> <tr> <td>State/Country:</td> <td>JAPAN</td> </tr> <tr> <td>Postal Code:</td> <td>381-2287</td> </tr> </table>		Name:	Shinko Electric Industries Co., Ltd.	Street Address:	80, Oshimada-machi,	City:	Nagano-shi, Nagano	State/Country:	JAPAN	Postal Code:	381-2287
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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>13302116</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13302116						
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CORRESPONDENCE DATA											
<p>Fax Number: (202)887-0357          Phone: 202-659-2930          Email: rpelayo@kqhpatentlaw.com  <i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i></p> <p>Correspondent Name: Kratz, Quintos &amp; Hanson, LLP          Address Line 1: 4th Floor          Address Line 2: 1420 K Street, N.W.          Address Line 4: Washington, DISTRICT OF COLUMBIA 20005</p>											
ATTORNEY DOCKET NUMBER:	110364										
NAME OF SUBMITTER:	Darren Crew										
Total Attachments: 1 source=110364 Assignment#page1.tif											

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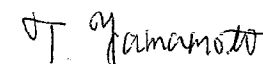
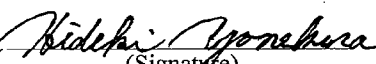
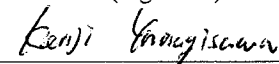
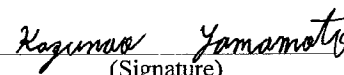
**U.S. ASSIGNMENT**(Insert ASSIGNEE's  
Name(s) Address(es))IN CONSIDERATION of the sum of One Dollar (\$1.00), and of other good and valuable  
consideration paid to the undersigned inventor(s) (hereinafter ASSIGNOR) byShinko Electric Industries Co., Ltd.,80, Oshimada-machi, Nagano-shi, Nagano 381-2287 Japan(hereinafter ASSIGNEE), the receipt of which is hereby acknowledged, the undersigned  
ASSIGNOR hereby sells, assigns and transfers to ASSIGNEE the entire and exclusive right, title  
and interest to the invention entitled:

(Title of Invention)

OPTICAL WAVEGUIDE AND METHOD OF MANUFACTURING THE SAME,  
AND OPTICAL WAVEGUIDE DEVICE(\*If the assignment is  
being filed after the  
filing of the  
application, this  
section must be  
completed)for which application for Letters Patent of the United States was executed on even date herewith  
unless otherwise indicated below:\* filed on November 22, 2011, Serial No. 13/302,116(Kratz, Quintos & Hanson, LLP is hereby authorized to insert the serial code, serial number and/or  
filing date hereon, when known)and all Letters Patent of the United States to be obtained therefor on said application or any  
continuation, divisional, substitute, reissue or reexamination thereof for the full term or terms for  
which the same may be granted.The ASSIGNOR agrees to execute all papers necessary in connection with the application and any  
continuation, divisional, reissue or reexamination applications thereof and also to execute separate  
assignments in connection with such applications as the ASSIGNEE may deem necessary or  
expedient.The ASSIGNOR agrees to execute all papers necessary in connection with any interference,  
litigation, or other legal proceeding which may be declared concerning this application or any  
continuation, divisional, reissue or reexamination thereof or Letters Patent or reissue patent issued  
thereon and to cooperate with the ASSIGNEE in every way possible in obtaining and producing  
evidence and proceeding with such interference, litigation, or other legal proceeding.

IN WITNESS WHEREOF, the undersigned inventor(s) has (have) affixed his/her/their signature(s).

(Signatures)

 (Signature)	<u>Takanori YAMAMOTO</u> (Type Name)	<u>November 4, 2011</u> (Date)
 (Signature)	<u>Hideki YONEKURA</u> (Type Name)	<u>November 4, 2011</u> (Date)
 (Signature)	<u>Kenji YANAGISAWA</u> (Type Name)	<u>November 4, 2011</u> (Date)
 (Signature)	<u>Kazunao YAMAMOTO</u> (Type Name)	<u>November 4, 2011</u> (Date)
 (Signature)	 (Type Name)	 (Date)
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NO LEGALIZATION REQUIRED