505348492 02/27/2019

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Qichuan Yu	03/30/2016
Hartmut Rudmann	03/24/2016
Ji Wang	03/30/2016
Kian Siang Ng	03/30/2016
Simon Gubser	03/24/2016
James Eilertsen	04/02/2016

RECEIVING PARTY DATA

Name:	HEPTAGON MICRO OPTICS PTE. LTD.
Street Address:	26 WOODLANDS LOOP
City:	SINGAPORE
State/Country:	SINGAPORE
Postal Code:	738317

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15772581

CORRESPONDENCE DATA

Fax Number: (877)769-7945

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: (212) 765-5070 **Email:** apsi@fr.com

Correspondent Name: SAMUEL BORODACH **Address Line 1:** FISH & RICHARDSON P.C.

Address Line 2: P.O.BOX 1022

Address Line 4: MINNEAPOLIS, MINNESOTA 55440-1022

ATTORNEY DOCKET NUMBER:	31026-0172US1
NAME OF SUBMITTER:	CAROL TYRRELL
SIGNATURE:	/Carol Tyrrell/
DATE SIGNED:	02/27/2019

PATENT 505348492 REEL: 048451 FRAME: 0416

Total Attachments: 9 source=310260172US1_Inventors_To_Heptagon#page1.tif source=310260172US1_Inventors_To_Heptagon#page2.tif source=310260172US1_Inventors_To_Heptagon#page3.tif source=310260172US1_Inventors_To_Heptagon#page4.tif source=310260172US1_Inventors_To_Heptagon#page5.tif source=310260172US1_Inventors_To_Heptagon#page6.tif source=310260172US1_Inventors_To_Heptagon#page7.tif source=310260172US1_Inventors_To_Heptagon#page8.tif source=310260172US1_Inventors_To_Heptagon#page9.tif

PATENT REEL: 048451 FRAME: 0417

ASSIGNMENT

For valuable consideration, the receipt of which we acknowledge, and intending to be bound legally, we, QICHUAN YU, HARTMUT RUDMANN, JI WANG, KIAN SIANG NG, SIMON GUBSER and JAMES EILERTSEN, each individually assign to HEPTAGON MICRO OPTICS PTE. LTD., a corporation formed under the laws of Singapore and having a principal place of business at 26 Woodlands Loop, Singapore, Singapore 738317, and its successors, transferees, and assignees (collectively the "Assignee"), all of our individual and joint right, title, and interest throughout the world in the subject matter (the "Subject Matter") of a patent application that names us as inventors, is titled "THIN OPTOELECTRONIC MODULES WITH APERTURES AND THEIR MANUFACTURE," and was filed in the United States Patent and Trademark Office on November 17, 2015, as application 62/256.238 (the "Application").

This Assignment assigns (a) the Application and all other applications that may be made for, and all patents, utility models, design registrations, and other rights of exclusion and inventors' certificates for, any of the Subject Matter (collectively the "Applications and Granted Rights") in every country or region, (b) the right to claim priority based on and the benefit of the filing date of any of the Applications and Granted Rights under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other applicable treaties or conventions, and (c) the right to pursue, collect, and retain in the Assignee's name or otherwise, damages and any other remedies arising from any past, present, or future infringement of the Subject Matter, the Applications and Granted Rights, and any other rights assigned by this Assignment.

We authorize the Assignee to apply for and pursue protection for any or all of the Subject Matter, the Applications and Granted Rights, and any other rights assigned by this Assignment in all countries, regions, and territories of the world, in our names or in the Assignee's name.

We represent and warrant that we have the right and power to make this Assignment and that we have not made and will not make any other assignment that conflicts with this Assignment.

We will communicate to the Assignee (or at the request of the Assignee to other parties) all known facts in any form relating to the Subject Matter, will execute and provide all oaths and declarations, statements, testimony, assignments, powers of attorney, applications, and

Assignment Page 1 of 3

documents, and will perform all other lawful acts necessary or desirable to secure fully to the Assignee the rights, titles, and interests assigned by this Assignment.

Qichuan Yu Witnessed by:	Date: × 30/03/Je/6
Dated: × 30. 3. 46	and and a second a
×_ Hartmut Rudmann	Date: X
Witnessed by:	
Dated: X Ji Wang Witnessed by: X	Date: X 30/03/2016
Nated: X 30/03/2016 X Kian Siang Ng Witnessed by: X	Date: \(\frac{\infty}{20\left\) \(\frac{103\left\) \(\frac{2016}{2016} \)
Dated: * 30/03/2.1	

Assignment Page 2 of 3

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	Simon Gubser	
	Witnessed by: X Accordance Accord	<u>.</u>
	Dated: * 124 3 7 1/16	~
X		Date:
	James Eilertsen	·
	Witnessed by:	
	Dated:	
	Dated:	a.
	The Assignee hereby acknowledges and accep	pts the foregoing assignment.
	Assignee: HEPTAGON MICRO OPTICS PT	E LTD.
	×	×
	Signature:	Date:
	Name:	
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	Title:	

Assignment Page 3 of 3

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Assignment Page 1 of 3

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	Qichuan Yu		
	Witnessed by:		
	Dated:		
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	Harfmut Rudmann		
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	Ji Wang		
	Witnessed by:		
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•	Kian Siang Ng	(40000000	Annual Control of the
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Assignment Page 2 of 3

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Assignment Page 3 of 3

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Qichuan Yu	
Witnessed by:	yapaman _y
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×	Date: X
Hartmut Rudmann	Date:
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VII	× = = 1 = 1 = 1
Ji Wang	Date: X 30/03/2016
Witnessed by:	
Dated: * 30/03/2016	·
x <u>9</u>	Date: 20/05/2016
Kian Siang Ng	
Witnessed by:	<u>.</u>
Dated: × 30/03/2016	-

Assignment Page 2 of 3

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	nes Eilertsen		Date			
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The	Assignee hereby ack	nowledges and acce	pts the foregoing	assignment.		
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