

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT3247145

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
ZHIXIN WANG	02/13/2015
JUIN JEI LIOU	02/13/2015
RUEI-CHENG SUN	02/13/2015
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	ALLEGRO MICROSYSTEMS, LLC
<b>Street Address:</b>	115 NORTHEAST CUTOFF
<b>City:</b>	WORCESTER
<b>State/Country:</b>	MASSACHUSETTS
<b>Postal Code:</b>	01606
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	14621766
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(781)401-9966
<i>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.</i>	
<b>Phone:</b>	7814019988
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<b>Correspondent Name:</b>	DALY, CROWLEY, MOFFORD & DURKEE, LLP
<b>Address Line 1:</b>	354A TURNPIKE STREET
<b>Address Line 2:</b>	SUITE 301A
<b>Address Line 4:</b>	CANTON, MASSACHUSETTS 02021-2714
<b>ATTORNEY DOCKET NUMBER:</b>	ALLEG-518AUS
<b>NAME OF SUBMITTER:</b>	ANTHONY T. MOOSEY
<b>SIGNATURE:</b>	/Anthony T. Moosey/
<b>DATE SIGNED:</b>	03/02/2015
<b>Total Attachments: 5</b>	
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## ASSIGNMENT

Whereas we, the undersigned, Zhixin Wang, Juin Jei Liou and Ruei-Cheng Sun hereby have made certain inventions or discoveries (or both) set forth in a Provisional patent application of the United States of America entitled DIRECT CONNECTED SILICON CONTROLLED RECTIFIER (SCR) HAVING INTERNAL TRIGGER, identified as Attorney Docket No. ALLEG-518PUSP, which application was filed on February 17, 2014 and assigned Application No. 61/940,586 and an application for Letters Patent of the United States of America entitled DIRECT CONNECTED SILICON CONTROLLED RECTIFIER (SCR) HAVING INTERNAL TRIGGER, identified as Attorney Docket No. ALLEG-518AUS, which application was executed on 02/11/2015; 02/11/2015; 02/11/2015, and filed on 02/13/2015 and assigned Application No. 14/621,766. In the event that the execution date, filing date and/or Application No. are not entered above or are incorrect at the time we executed this document, and if such information is deemed necessary, we hereby authorize and request the attorneys at DALY, CROWLEY, MOFFORD & DURKEE, LLP, 354A Turnpike Street, Suite 301A, Canton, MA 02021-2714, to insert above the execution date, filing date and/or Application No. of said application.

Whereas Allegro Microsystems, LLC, a Delaware limited liability company having a place of business at 115 Northeast Cutoff, Worcester, Massachusetts 01606, and which, together with its successors and assigns, is hereinafter called "Assignee," is desirous of acquiring the title, rights, benefits and privileges hereinafter recited;

Now, therefore, for valuable consideration furnished by Assignee to us, receipt and sufficiency of which we hereby acknowledge, we hereby, without reservation:

1. Assign, transfer and convey to Assignee the entire right, title and interest in and to said inventions and discoveries, said United States Provisional patent application, any and all other patent applications on said inventions and discoveries in whatsoever countries, including all utility, divisional, renewal, substitute, continuation, reissue, PCT and Convention applications based in whole or in part upon said inventions or discoveries, said United States Provisional patent application or upon said applications, and any and all Letters Patent, reissues, reexaminations, and extensions of Letters Patent granted for said inventions and discoveries or upon said applications, and every priority right that is or may be predicated upon or arise from said inventions, said discoveries, said applications and said Letters Patent;

2. Authorize Assignee to file patent applications in any or all countries on any or all of said inventions and discoveries in my name or in the name of Assignee or otherwise as Assignee may deem advisable, under the International Convention or otherwise;

3. Authorize and request the Commissioner of Patents and Trademarks of the United States of America and the empowered officials of all other governments to transfer said United States Provisional application or to issue or transfer any Letters Patent to Assignee based in whole or in part upon said United States Provisional application, as assignee of the entire right, title and interest therein or otherwise as Assignee may direct;

4. Warrant that I have not knowingly conveyed to others any right in said inventions, discoveries, applications or patents or any license to use the same or to make, use or sell anything embodying or utilizing any of said inventions or discoveries; and that I have good right to assign


the same to Assignee without encumbrance;

5. Bind my heirs, legal representatives and assigns, as well as myself, to do, upon Assignee's request and at Assignee's expense, but without additional consideration to me or them, all acts reasonably serving to assure that the said inventions and discoveries, the said patent applications and the said Letters Patent shall be held and enjoyed by Assignee as fully and entirely as the same could have been held and enjoyed by me, my heirs, legal representatives and assigns if this assignment had not been made; and particularly to execute and deliver to Assignee all lawful application documents including petitions, specifications, and oaths, and all assignments, disclaimers, and lawful affidavits in form and substance as may be requested by Assignee; to communicate to Assignee all facts known to me relating to said inventions and discoveries or the history thereof; and to furnish Assignee with any and all documents, photographs, models, samples and other physical exhibits in my control or in the control of my heirs, legal representatives or assigns which may be useful for establishing the facts of my conceptions, disclosures, and reduction to practice of said inventions and discoveries.

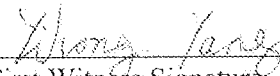
PATENT ASSIGNMENT  
Atty. Dckt. No.: ALLEG-518AUS

In testimony of which we have each executed this Assignment as an instrument on the date indicated next to our name(s).

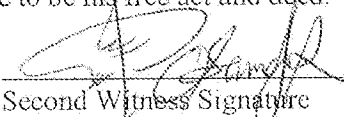
Dated: 02/13/2015

  
Zhixin Wang

On this 13 day of 02, 2015, before me appeared  
Zhixin Wang, to me known and known to me to be the person described in and who executed the foregoing instrument, and he acknowledged the same to be his free act and deed.

  
First Witness Signature  
YIHONG TANG  
First Witness Printed Name

On this 13 day of 02, 2015, before me appeared  
Zhixin Wang, to me known and known to me to be the person described in and who executed the foregoing instrument, and he acknowledged the same to be his free act and deed.

  
Second Witness Signature  
Osama Albarino  
Second Witness Printed Name

PATENT ASSIGNMENT  
Atty. Dekt. No.: ALLEG-518AUS

Dated: Feb. 13, 2015

Jun Jai Liou  
Jun Jai Liou

On this 13<sup>th</sup> day of Feb., 2015, before me appeared

Jun Jai Liou, to me known and known to me to be the person described in and who executed the foregoing instrument, and he acknowledged the same to be his free act and deed.

Pei-Li Liou  
First Witness Signature

Pei-Li Liou  
First Witness Printed Name

On this 13<sup>th</sup> day of Feb, 2015, before me appeared

Jun Jai Liou, to me known and known to me to be the person described in and who executed the foregoing instrument, and he acknowledged the same to be his free act and deed.

Sun Kangming  
Second Witness Signature

Kangming Sun  
Second Witness Printed Name

PATENT ASSIGNMENT  
Atty. Dckt. No.: ALLEG-518AUS

Dated: Feb 13, 2015

Ruei-Cheng Sun  
Ruei-Cheng Sun

On this 13 day of Feb, 2015, before me appeared

Ruei-Cheng Sun, to me known and known to me to be the person described in and who executed the foregoing instrument, and he acknowledged the same to be his free act and deed.

Ruei Lin Yang  
First Witness Signature

RUEI LIN YANG  
First Witness Printed Name

On this 13 day of Feb, 2015, before me appeared

Ruei-Cheng Sun, to me known and known to me to be the person described in and who executed the foregoing instrument, and he acknowledged the same to be his free act and deed.

Kai Hsiang Chuang  
Second Witness Signature

KAI HSIANG CHUANG  
Second Witness Printed Name

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