504146820 12/15/2016

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4186666

SUBMISSION TYPE:		NE	NEW ASSIGNMENT				
NATURE OF CONVEYANCE:		AS	ASSIGNMENT				
ONVEYING PARTY DA	ΑΤΑ	•					
			Name			Execution Date	
YISONG LU						12/07/2016	
LYNDON AMBRUSON						12/07/2016	
ECEIVING PARTY DA	ТА						
Name: ALLEGRO MICROSYSTEMS, LLC							
Street Address:	115 NORTHEAST CUTOFF						
City:	WORCE	ESTER					
State/Country:	MASSA	CHUSE	TTS				
Postal Code:	01606						
Property TypeApplication Number:15		Number 15374154					
Application Number:	1	1537415					
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ASSIGNMENT

Whereas we, the undersigned, Yisong Lu and Lyndon Ambruson hereby have made certain inventions or discoveries (or both) set forth in an application for Letters Patent of the United States of America entitled: METHODS AND APPARATUS FOR MOTOR STARTUP WITH SINUSOIDAL PHASE CURRENT, identified as Attorney Docket No. ALLEG-620PUS, and Client A-2513. which executed Case No. application was on Dromar 7. 2014 ____, and filed on $\underline{O2C, 9}$ $\partial \langle l \rangle$ and Assigned Application No. 15/33/15/In the event that the execution date, filing date and/or Application No. are not entered above at the time we executed this document, and if such information is deemed necessary, we hereby authorize and request our 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 application for Letters Patent of the United States of America, any and all other applications for Letters Patent on said inventions and discoveries in whatsoever countries, including all divisional, renewal, substitute, continuation, reissue, PCT, re-examination and Convention applications based in whole or in part upon said inventions or discoveries, 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 and any provisional applications from which priority is claimed in said Letters Patent;

 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;

 Authorize and request the Commissioner of Patents and Trademarks of the United States of America and the empowered officials of all other governments to issue or transfer all said Letters Patent to Assignee, as assignee of the entire right, title and interest therein or otherwise as Assignee may direct;

PATENT Atty. Dckt. No.: ALLEG-620PUS Client Case No.: A-2513

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 REEL: 040740 FRAME: 0360

PATENT Atty. Dckt. No.: ALLEG-620PUS Client Case No.: A-2513

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

Dated: Der 7 2016	Ep ling
samanan an	Yisong Lu
On this $\underline{7}_{\text{Mass}}$ day of $\underline{7}_{\text{Mass}}$	OI_{Vac} , before me appeared
Yisong Lu, to me known and known to me to foregoing instrument, and he or she acknowled	be the person described in and who executed the dged the same to be his or her free act and deed.
	Charistic ob U.g. First Witness Signature
	× × ×

On this $\underline{7}_{\text{Day}}$ day of $\underline{Ver}_{\text{Month}}, \underline{2016}_{\text{Ver}}$, before me appeared

Visong Lu, to me known and known to me to be the person described in and who executed the foregoing instrument, and he or she acknowledged the same to be his or her free act and deed.

his to ker Alag (st Withels Printed Name

Second Witness Signature

PATENT REEL: 040740 FRAME: 0361

Second Witness Printed Name

PATENT Atty. Dekt. No.: ALLEG-620PUS Client Case No.: A-2513

vadoa Ambrutton

On this _____ day of _____, 2016, before me appeared

Lyndon Ambruson, to me known and known to me to be the person described in and who executed the foregoing instrument, and he or she acknowledged the same to be his or her free act and deed.

First Witness Signature

First Witness Printed Name

_day of ______, 2016, before me appeared On this

Lyndon Ambruson, to me known and known to me to be the person described in and who executed the foregoing instrument, and he or she acknowledged the same to be his or her free act and deed.

Ą.

Second Witness Signature

STODDARD OBERT

Second Witness Printed Name

553669.docx

PATENT REEL: 040740 FRAME: 0362

RECORDED: 12/15/2016