

PATENT ASSIGNMENT

Electronic Version v1.1

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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>Monica J. Thomas</td><td>12/17/2008</td></tr><tr><td>David J. Haas</td><td>12/19/2008</td></tr></tbody></table>		Name	Execution Date	Monica J. Thomas	12/17/2008	David J. Haas	12/19/2008
Name	Execution Date						
Monica J. Thomas	12/17/2008						
David J. Haas	12/19/2008						
RECEIVING PARTY DATA							
Name:	Allegro Microsystems, Inc.						
Street Address:	115 Northeast Cutoff						
City:	Worcester						
State/Country:	MASSACHUSETTS						
Postal Code:	01615-0036						
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>12342382</td></tr></tbody></table>		Property Type	Number	Application Number:	12342382		
Property Type	Number						
Application Number:	12342382						
CORRESPONDENCE DATA							
Fax Number:	(781)401-9966						
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>							
Phone:	781-401-9988						
Email:	pam@dc-m.com						
Correspondent Name:	Paul D. Durkee						
Address Line 1:	354A Turnpike Street						
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Address Line 4:	Canton, MASSACHUSETTS 02021-2714						
ATTORNEY DOCKET NUMBER:	ALLEG-232AUS						
NAME OF SUBMITTER:	Paul D. Durkee						
Total Attachments: 4 source=TO_PTO_Assignment#page1.tif source=TO_PTO_Assignment#page2.tif							

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REEL: 022038 FRAME: 0184

A S S I G N M E N T

Whereas we, the undersigned, Monica J. Thomas and David J. Haas, 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 ANGULAR POSITION SENSING USING MULTIPLE QUADRATURE SIGNALS FROM FREQUENCY INDEPENDENT SINUSOIDS, identified as Attorney Docket No. ALLEG-232AUS, and Client Case No. A-2122, which application was executed on 12/15/08, 12/19/08, and filed on 12/23/08 and Assigned Application No. 12/342,382. 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, INC., a Delaware corporation having a place of business at 115 Northeast Cutoff, Worcester, Massachusetts 01615-0036, 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, 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;

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 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;

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.

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

Dated: 12/17/08

Monica J. Thomas
Monica J. Thomas

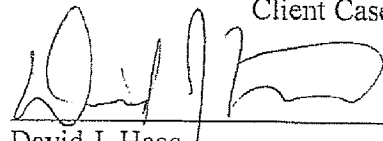
On this 17 day of December, 2008, before me appeared Monica J. Thomas, to me known and known to me to be the person described in and who executed the foregoing instrument, and he acknowledged the same to be his free act and deed.

[Signature]
First Witness Signature
Ken PANGELINAN
First Witness Printed Name

On this 17 day of December, 2008, before me appeared Monica J. Thomas, 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.

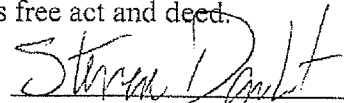
[Signature]
Second Witness Signature
Deborah Ladd
Second Witness Printed Name

Dated: December 19th, 2008



David J. Haas

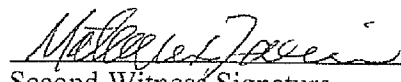
On this 19th day of December, 2008, before me appeared David J. Haas, to me known and known to me to be the person described in and who executed the foregoing instrument, and he acknowledged the same to be his free act and deed.



First Witness Signature
Steven Danbert

First Witness Printed Name

On this 19th day of December, 2008, before me appeared David J. Haas, 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
Matthew Drouin

Second Witness Printed Name

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