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PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:		NEW ASSIGNMENT	
NATURE OF CONVEYANCE:		ASSIGNMENT	
ONVEYING PARTY D	ΑΤΑ		
		Name	Execution Date
CHRISTOPHER MICHAEL OWEN			09/14/2011
RECEIVING PARTY DA			
Name: MKS INSTRUMENTS, INC.			
Street Address:	2 TECH DRIVE		
Internal Address:	SUITE 201		
City:	ANDOVER		
State/Country:	MASSACHUSETTS		
Postal Code:	01810		
Property Type		444400	
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Application Number:	14	444133	
Application Number: CORRESPONDENCE E		444133	
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ASSIGNMENT BY INVENTOR

THIS ASSIGNMENT, made by Christopher Michael Owen (hereinafter referred to as Assignor), residing at 15 Wild Berry Lane, Pittsford, New York 14534;

WHEREAS, Assignor has invented certain new and useful improvements in LCL High Power Combiner, set forth in a Patent application for Letters Patent of the United States, already filed on August 31, 2011 as U.S. Application No. 13/222,014; and

WHEREAS, MKS Instruments, Inc., a Corporation organized under and pursuant to the laws of Delaware having its principal place of business at 2 Tech Drive, Suite 201, Andover, Massachusetts 01810 (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said inventions and said Application for Letters Patent of the United States, and in and to any Letters Patent of the United States to be obtained therefore and thereon.

NOW, THEREFORE, for good and sufficient consideration, the receipt of which is hereby acknowledged, Assignor has sold, assigned, transferred and set over, and by these presents does sell, assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns, the entire right, title and interest in and to the abovementioned inventions and application for Letters Patent, and in and to any and all direct and indirect divisions, continuations and continuations-in-part of said application, and any and all Letters Patent in the United States and all foreign countries which may be granted therefore and thereon, and reissues, reexaminations and extensions of said Letters Patent, and all rights under the International Convention for the Protection of Industrial Property, including the right to recover for past infringements, the same to be held and enjoyed by Assignee, for its own use and benefit and the use and benefit of its successors, legal representatives and assigns, to the full end of the term or terms for which Letters Patent may be granted and/or extended, as fully and entirely as the same would have been held and enjoyed by Assignor, had this sale and assignment not been made.

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AND for the same consideration, Assignor hereby represents and warrants to Assignee, its successors, legal representatives and assigns, that, at the time of execution and delivery of these presents, except for any rights, titles and/or interests that have arisen to Assignee under law or that have already been transferred to Assignee, Assignor is the sole and lawful owner of the entire right, title and interest in and to the said inventions and application for Letters Patent above-mentioned, and that the same are unencumbered and that Assignor has good and full right and lawful authority to sell and convey the same in the manner herein set forth.

AND for the same consideration, Assignor hereby covenants and agrees to and with Assignee, its successors, legal representatives and assigns, that Assignor will sign all papers and documents, take all lawful oaths and do all acts necessary or required to be done for the procurement, maintenance, enforcement and defense of any Letters Patent and applications for Letters Patent for said inventions, without charge to Assignee, its successors, legal representatives and assigns, whenever counsel of Assignee, or counsel of its successors, legal representatives and assigns, shall advise: that any proceeding in connection with said inventions, or said Patent applications for Letters Patent for said inventions of any proceeding in connection with any Letters Patent or applications for Letters Patent for said inventions in any country, including but not limited to interference proceedings, is lawful and desirable; or, that any division, continuation or continuation-in-part of any application for Letters Patent, or any reissue, reexamination or extension of any Letters Patent, to be obtained thereon, is lawful and desirable.

AND Assignor hereby requests the Commissioner of Patent and Trademarks to issue said Letters Patent of the United States to Assignee, as Assignee of said inventions and the Letters Patent to be issued thereon, for the sole use and benefit of Assignee, its successors, legal representatives and assigns.

AND Assignor hereby grants the following individuals the power to insert on this Assignment any further identification which may be necessary or desirable in order to

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comply with the rules of the United States Patent and Trademark Office for recordation of this document:

HARNESS, DICKEY & PIERCE, P.L.C.

All practitioners at Customer Number 27572

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AND Assignor acknowledges an obligation of assignment of this invention to Assignee at the time the invention was made.

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Christopher Michael Owen

9/14/11 Date:

United States of America) State of SS.:) County of Mm ø 1.0

200 Christopher 14 day of Suttember On this before me Christopher Michael Owen , to me known to be the individual personally came

described in and who executed the foregoing instrument, and acknowledged execution of the same.

SUZANNE L. WANDTKE Notary Public, State of New York Qualified in Monroe County My Commission Expires Feb 28, 2015

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RECORDED: 08/26/2014

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