### 504095583 11/15/2016

## **PATENT ASSIGNMENT COVER SHEET**

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4142251

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date	
YOUN-JAE KOOK	11/11/2016	
JOSE BARREIRO SILVA	11/11/2016	
JIANRONG CHEN	11/11/2016	
RONALD A. KAPUSTA JR.	11/11/2016	

#### **RECEIVING PARTY DATA**

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#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	15348521

#### **CORRESPONDENCE DATA**

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**Email:** patents\_TommyF@wolfgreenfield.com **Correspondent Name:** WOLF, GREENFIELD & SACKS, P.C.

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ATTORNEY DOCKET NUMBER:	G0766.70115US00
NAME OF SUBMITTER:	DARLENE J. MORIN
SIGNATURE:	/Darlene J. Morin/
DATE SIGNED:	11/15/2016

#### **Total Attachments: 5**

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PATENT REEL: 040317 FRAME: 0384

#### ASSIGNMENT

WHEREAS, I am a named inventor, Young-Jae Kook, Jose Barreiro Silva, Jianrong Chen, and Ronald A. Kapusta, Jr. of residence listed below, having invented certain new and useful improvements as described in an application for United States Letters Patent entitled "MODE-MATCHING OF MEMS RESONATORS," (hereinafter referred to as "Application") and having internal reference number of APD5583;

WHEREAS, I hereby authorize and request the attorneys or agents associated with United States Patent and Trademark Office Customer No. 140980 to insert here in parentheses (Ser. No. 15/348,521; Filing Date: November 10, 2016) the filing date and serial number of the Application when known;

WHEREAS, Analog Devices, Inc. (hereinafter referred to as "Assignee"), a Massachusetts Corporation, with an address of One Technology Way, Norwood, MA 02062, desires to acquire my entire right, title and interest in and to any and all inventions and improvements that are disclosed in the Application (hereinafter referred to as "Invention"), including any Letters Patent that may issue thereon;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I hereby assign and transfer, and hereby agree to assign and transfer, to Assignee, all right, title and interest in and to the Invention and in and to the Application and all patents which may be granted therefrom, and all related applications (e.g., provisional applications, divisional applications, reissues, reexaminations, continuation applications, continuation-in-part applications, extensions thereof, design applications, applications in foreign countries, international applications, national phase applications, and the like). I hereby authorize and request the Commissioner of Patents and Trademarks to issue all patents, for the Invention, or patents resulting therefrom, insofar as my interest is concerned, to Assignee.

I also hereby assign and transfer, and hereby agree to assign and transfer to Assignee, all right, title and interest to the Invention, the Application or any related application throughout the world, including all rights of priority resulting from the filing of the Application or any related application, including but not limited to: the right to file applications and obtain patents, utility models, industrial models and designs for the Invention in Assignee's own name throughout the world, the right to claim priority from the Application or any related application when filing applications and obtaining patents, utility models, industrial models and designs for the Invention throughout the world, and all rights to publish cautionary notices reserving ownership of the Invention and all rights to register the Invention in appropriate registries. I further agree to execute any and all powers of attorney, applications, assignments, declarations, affidavits, and any other papers in connection therewith necessary to perfect such right, title and interest in and to Assignee.

I will communicate to Assignee any facts known to me respecting any improvements to the Invention; and I will sign all lawful papers, execute all rightful assignments, execute all

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Title of Invention:

provisional, divisional, continuation, continuation-in-part, reissue and substitute applications, make lawful oaths and declarations, and generally do everything possible to vest title in and to Assignee and to aid Assignee to obtain and enforce proper protection for the Invention in all countries and jurisdictions throughout the world. I irrevocably appoint Analog Devices, Inc. as my attorney-in-fact to execute on my behalf any documents deemed necessary by Analog Devices, Inc. to obtain and enforce proper protection for the Invention in all countries and jurisdictions throughout the world. I agree to testify and cooperate with Assignee in any judicial proceeding, administrative proceeding, post-grant proceeding, or other proceeding concerning the Invention (including litigation with a third party over any patent issued on the Invention), and Assignee agrees to cover my reasonable costs and expenses (if any).

This Assignment shall be binding on the parties' successors, assigns and legal representatives.

MODE-MATCHING OF MEMS

	RESONATORS
Full name of inventor:	Youn-Jae Kook
Inventor's signature:	THURN
Date:	Nov. 11. 2016

Inventor Home Address:	7 Wainwright Road, Unit 57		
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Witness's signature:	Aftyn
Witness Home Address:	15 N Beaon St. #214

Boston, MA, 02134

# ATTORNEY DOCKET NO. G0766.70115US00 (APD5583)

### **ASSIGNMENT**

Title of Invention:	MODE-MATCHING OF MEMS RESONATORS			
Full name of inventor:	Jose Barreiro Silva			
Inventor's signature:	Ja Bours L. Silve			
Date:	11/11/2016			
Inventor Home Address:	30 Hayden Lane Bedford, MA 01730			
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## ATTORNEY DOCKET NO. G0766.70115US00 (APD5583)

## ASSIGNMENT

Title of Invention:	MODE-MATCHING OF MEMS RESONATORS
Full name of inventor:	Jianrong Chen
Inventor's signature:	<u> </u>
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Witness Home Address:	30 Captain Parker Arms, Appt #23

## ATTORNEY DOCKET NO. G0766.70115US00 (APD5583)

#### **ASSIGNMENT**

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MODE-MATCHING OF MEMS

**RESONATORS** 

Full name of inventor:

Ronald A. Kapusta, Jr.

Inventor's signature:

11/11/2016

Date:

\_\_\_\_\_

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Witness's signature:

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**RECORDED: 11/15/2016**