PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT7550218

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JYOTHI SWAROOP SADHU	02/06/2019
RALPH ROTHEMUND	02/05/2019
ALIREZA TAJIC	02/05/2019

RECEIVING PARTY DATA

Name:	QORVO US, INC.
Street Address:	7628 THORNDIKE ROAD
City:	GREENSBORO
State/Country:	NORTH CAROLINA
Postal Code:	27409

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	17933958

CORRESPONDENCE DATA

Fax Number: (877)812-1249

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.

Phone: 9192382300 Email: sbaker@wt-ip.com

QORVO AND WITHROW + TERRANOVA **Correspondent Name:**

Address Line 1: 106 PINEDALE SPRINGS WAY Address Line 4: CARY, NORTH CAROLINA 27511

ATTORNEY DOCKET NUMBER:	2867-2252C
NAME OF SUBMITTER:	SARAH BAKER
SIGNATURE:	/Sarah Baker/
DATE SIGNED:	09/21/2022

Total Attachments: 6

source=2867-2252_Assignment-Declaration_All#page1.tif source=2867-2252_Assignment-Declaration_All#page2.tif source=2867-2252_Assignment-Declaration_All#page3.tif source=2867-2252 Assignment-Declaration All#page4.tif

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DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT FOR SINGLE ASSIGNEE

RI-POLAR BORDER REGION IN PIEZOELECTRIC DEVICE

Title of

Invention	
As the below named inventor, I hereby declare that:	
This declaration is d	lirected to: The attached application; or United States application or PCT international application number, filed on.
The above-identified application is made or authorized to be made by me.	
I believe that I am that application.	ne original inventor or an original joint inventor of a claimed invention in the
	ge that any willful false statement made in this declaration is punishable under 18 or imprisonment of not more than five (5) years, or both.
WHEREAS, <u>Qorvo US</u> , <u>Inc.</u> , a corporation duly organized and existing under the laws of the state of Delaware and having a principal place of business at 7628 Thorndike Road, Greensboro, North	

Carolina, 27409 (hereinafter referred to as "ASSIGNEE"), is desirous of acquiring the entire right, title, and interest in and to said invention as described in the specification executed by me concurrently

herewith, and any and all Letters Patent which shall be granted therefor.

NOW, THEREFORE, To All Whom It May Concern, be it known that for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I, the said assignor, have sold, assigned, transferred and set over unto the said ASSIGNEE, its successors and assigns, the entire right, title and interest in and to the above-mentioned application and invention and in and to any and all Letters Patent of the United States which may hereafter be granted therefor, and in any and to any and all continuations, continuations-in-part, substitutions, divisions or reissues of said Letters Patent, the same to be held and enjoyed by the said ASSIGNEE, for its interest, and for its own use and behalf, and the use and behalf of its successors and assigns, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held and enjoyed by me had this assignment and sale not been made.

I, the said assignor, transfer and set over unto the said ASSIGNEE the rights to the priority application, namely U.S. provisional application 62/779,605 filed on December 14, 2018.

And for the consideration aforesaid, I hereby covenant and agree to and with the said ASSIGNEE, its successors and assigns, that at the time of the execution and delivery of these presents I am a joint and lawful owner of the entire right, title and interest in and to the invention, application and Letters Patent above-mentioned and that the same are unencumbered, and that I have good right and lawful authority to sell and convey the same in the manner herein set forth.

And for the consideration aforesaid, I hereby covenant and agree to and with the said ASSIGNEE, its successors and assigns, that I will, whenever its counsel or the counsel of its successors and assigns, learned in the law, shall advise that an amendment, division, continuation, continuation-in-part, or

substitution of, or any other proceeding in connection with said application, including interference proceedings, is lawful and desirable, sign all papers and drawings, take all rightful oaths, and do all acts necessary or required to be done for the procurement of valid Letters Patent for said invention, or for the reissue of the same without charge to the said ASSIGNEE, its successors or assigns, but at its or their expense.

I hereby request the Commissioner for Patents to issue the Letters Patent in accordance with this instrument.

For the consideration aforesaid, I have sold, assigned, transferred and set over, and by these presents do sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, assigns or nominee, the entire right, title and interest in and to any and all Letters Patent for said invention which may be granted in countries foreign to the United States and in and to any applications for Letters Patent which may be filed for said invention in countries foreign to the United States and in and to the invention described in said application; and I hereby authorize and empower the said ASSIGNEE, its successors, assigns or nominees to apply for Letters Patent or other form of protection on said invention in its own name or in the name of its successor, assignee, or nominee, in any and all countries where it may desire to file such application and where said application may be filed by another than the inventor; and I hereby covenant and agree to sign all papers and drawings, take all rightful oaths, and do all acts necessary or required to be done for procurement of Letters Patent, or other form of protection, for said invention or inventions in countries foreign to the United States, and for further investing or confirming the right and title therein to the ASSIGNEE, its successors, assignee, or nominee, without charge to the said ASSIGNEE, its successor, assignee or nominee, but at its or their expense.

IN WITNESS WHEREOF, I hereunto set my hand and seal.

LEGAL NAME OF INVENTOR

Signature: ; Ty

Inventor: Jyothi Swaroop Sadhu	Date: 02/06/2019
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DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT FOR SINGLE ASSIGNEE

Title of Invention	BI-POLAR BORDER REGION IN PIEZOELECTRIC DEVICE
As the below named	l inventor, I hereby declare that:
This declaration is o	directed to: The attached application; or United States application or PCT international application number, filed on.
The above-identifie	d application is made or authorized to be made by me.
I believe that I am tapplication.	he original inventor or an original joint inventor of a claimed invention in the
-	ge that any willful false statement made in this declaration is punishable under 18 or imprisonment of not more than five (5) years, or both.
WHEREAS, Qorvo	US, Inc., a corporation duly organized and existing under the laws of the state of

WHEREAS, Qorvo US, Inc., a corporation duly organized and existing under the laws of the state of Delaware and having a principal place of business at 7628 Thorndike Road, Greensboro, North Carolina, 27409 (hereinafter referred to as "ASSIGNEE"), is desirous of acquiring the entire right, title, and interest in and to said invention as described in the specification executed by me concurrently herewith, and any and all Letters Patent which shall be granted therefor.

NOW, THEREFORE, To All Whom It May Concern, be it known that for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I, the said assignor, have sold, assigned, transferred and set over unto the said ASSIGNEE, its successors and assigns, the entire right, title and interest in and to the above-mentioned application and invention and in and to any and all Letters Patent of the United States which may hereafter be granted therefor, and in any and to any and all continuations, continuations-in-part, substitutions, divisions or reissues of said Letters Patent, the same to be held and enjoyed by the said ASSIGNEE, for its interest, and for its own use and behalf, and the use and behalf of its successors and assigns, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held and enjoyed by me had this assignment and sale not been made.

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And for the consideration aforesaid, I hereby covenant and agree to and with the said ASSIGNEE, its successors and assigns, that I will, whenever its counsel or the counsel of its successors and assigns, learned in the law, shall advise that an amendment, division, continuation, continuation-in-part, or

substitution of, or any other proceeding in connection with said application, including interference proceedings, is lawful and desirable, sign all papers and drawings, take all rightful oaths, and do all acts necessary or required to be done for the procurement of valid Letters Patent for said invention, or for the reissue of the same without charge to the said ASSIGNEE, its successors or assigns, but at its or their expense.

I hereby request the Commissioner for Patents to issue the Letters Patent in accordance with this instrument.

For the consideration aforesaid, I have sold, assigned, transferred and set over, and by these presents do sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, assigns or nominee, the entire right, title and interest in and to any and all Letters Patent for said invention which may be granted in countries foreign to the United States and in and to any applications for Letters Patent which may be filed for said invention in countries foreign to the United States and in and to the invention described in said application; and I hereby authorize and empower the said ASSIGNEE, its successors, assigns or nominees to apply for Letters Patent or other form of protection on said invention in its own name or in the name of its successor, assignee, or nominee, in any and all countries where it may desire to file such application and where said application may be filed by another than the inventor; and I hereby covenant and agree to sign all papers and drawings, take all rightful oaths, and do all acts necessary or required to be done for procurement of Letters Patent, or other form of protection, for said invention or inventions in countries foreign to the United States, and for further investing or confirming the right and title therein to the ASSIGNEE, its successors, assignee, or nominee, without charge to the said ASSIGNEE, its successor, assignee or nominee, but at its or their expense.

IN WITNESS WHEREOF, I hereunto set my hand and seal.

LEGAL NAME OF INVENTOR

Inventor: Ralph Rothemund

Signature: Roll A

Date: 02/05/2019

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT FOR SINGLE ASSIGNEE

Title of Invention	BI-POLAR BORDER REGION IN PIEZOELECTRIC DEVICE
As the below name	d inventor, I hereby declare that:
This declaration is	directed to: The attached application; or United States application or PCT international application number, filed on.
The above-identifi	ed application is made or authorized to be made by me.
I believe that I am application.	the original inventor or an original joint inventor of a claimed invention in the
I hereby acknowle U.S.C, 1001 by fir	dge that any willful false statement made in this declaration is punishable under 18 to or imprisonment of not more than five (5) years, or both.
Delaware and having Carolina, 27409 (Fittle, and interest in	o US. Inc., a corporation duly organized and existing under the laws of the state of ing a principal place of business at 7628 Thorndike Road, Greensboro, North hereinafter referred to as "ASSIGNEE"), is desirous of acquiring the entire right, in and to said invention as described in the specification executed by me concurrently and all Letters Patent which shall be granted therefor.
consideration, the sold, assigned, train	RE, To All Whom It May Concern, be it known that for good and valuable receipt and sufficiency of which is hereby acknowledged, I, the said assignor, have asserted and set over unto the said ASSIGNEE, its successors and assigns, the entire rest in and to the above mentioned application and the said assigns, the entire

consideration, the receipt and sufficiency of which is hereby acknowledged, I, the said assignor, have sold, assigned, transferred and set over unto the said ASSIGNEE, its successors and assigns, the entire right, title and interest in and to the above-mentioned application and invention and in and to any and all Letters Patent of the United States which may hereafter be granted therefor, and in any and to any and all continuations, continuations-in-part, substitutions, divisions or reissues of said Letters Patent, the same to be held and enjoyed by the said ASSIGNEE, for its interest, and for its own use and behalf, and the use and behalf of its successors and assigns, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held and enjoyed by me had this assignment and sale not been made.

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IN WITNESS WHEREOF, I hereunto set my hand and seal.

LEGAL NAME OF INVENTOR

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Inventor:	121111111111111111111111111111111111111	4 57 184
man to make a market as	T GOOD BOILDING	

Date: 2/5/2019

Signature: ___

PATENT REEL: 061167 FRAME: 0761

RECORDED: 09/21/2022