10/29/2021 506950006

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6996843

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
TSUYOSHI YOKOYAMA	10/26/2021
TABITO TANAKA	10/26/2021

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:	17452825

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: dsmith@wt-ip.com

Correspondent Name: WITHROW & TERRANOVA, PLLC Address Line 1: 106 PINEDALE SPRINGS WAY Address Line 4: CARY, NORTH CAROLINA 27511

ATTORNEY DOCKET NUMBER:	2867-2640
NAME OF SUBMITTER:	DAVID M. SMITH
SIGNATURE:	/David M. Smith/
DATE SIGNED:	10/29/2021

Total Attachments: 4

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PATENT REEL: 057960 FRAME: 0129 506950006

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	SURFACE ACOUSTIC WAVE (SAW) STRUCTURES WITH
Invention	TRANSVERSE MODE SUPPRESSION
As the below name	I inventor, I hereby declare that:
This declaration is o	lirected 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 t application.	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.
Delaware and having Carolina, 27409 (he title, and interest in	US, Inc., a corporation duly organized and existing under the laws of the state of a principal place of business at 7628 Thorndike Road, Greensboro, North creinafter referred to as "ASSIGNEE"), is desirous of acquiring the entire right, and to said invention as described in the specification executed by me concurrently and all Letters Patent which shall be granted therefor.
consideration, the r sold, assigned, tran right, title and inter all Letters Patent of and all continuation the same to be held and the use and bel Patent may be gran	RE, To All Whom It May Concern, be it known that for good and valuable eccipt and sufficiency of which is hereby acknowledged, I, the said assignor, have sferred and set over unto the said ASSIGNEE, its successors and assigns, the entire est in and to the above-mentioned application and invention and in and to any and the United States which may hereafter be granted therefor, and in any and to any as, continuations-in-part, substitutions, divisions or reissues of said Letters Patent, and enjoyed by the said ASSIGNEE, for its interest, and for its own use and behalf that of its successors and assigns, to the full end of the term for which said Letters ted as fully and entirely as the same would have been held and enjoyed by me had I sale not been made.

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: Trugoshi Yokoyama

Inventor: Tsuyoshi Yokoyama

Date: Oct 26, 202/

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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	TRANSVERSE MODE SUPPRESSION
	l inventor, I hereby declare that:
As the below hamed	inventor, thereby declare time
This declaration is o	
	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
I hereby acknowled U.S.C. 1001 by fine	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.
Delaware and havin Carolina, 27409 (he title, and interest in	US, Inc., a corporation duly organized and existing under the laws of the state of g a principal place of business at 7628 Thorndike Road, Greensboro, North reinafter referred to as "ASSIGNEE"), is desirous of acquiring the entire right, and to said invention as described in the specification executed by me concurrently all Letters Patent which shall be granted therefor.
consideration, the resold, assigned, transfright, title and intervall Letters Patent of and all continuation the same to be held and the use and beh Patent may be grant	E. To All Whom It May Concern, be it known that for good and valuable beeipt and sufficiency of which is hereby acknowledged, I, the said assignor, have aftered and set over unto the said ASSIGNEE, its successors and assigns, the entire lest in and to the above-mentioned application and invention and in and to any and the United States which may hereafter be granted therefor, and in any and to any s, continuations-in-part, substitutions, divisions or reissues of said Letters Patent, and enjoyed by the said ASSIGNEE, for its interest, and for its own use and behalf, alf of its successors and assigns, to the full end of the term for which said Letters are das fully and entirely as the same would have been held and enjoyed by me had sale not been made.
successors and assignated lawful owner of the	ration aforesaid. I hereby covenant and agree to and with the said ASSIGNEE, its gas, that at the time of the execution and delivery of these presents I am a joint and entire right, title and interest in and to the invention, application and Letters Patent and that the same are unencumbered, and that I have good right and lawful authority

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

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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,

to sell and convey the same in the manner herein set forth.

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: Tabito Tanaka Date: Oct 26th, 2021

Signature: Tabito Tanaka