PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6183089

	SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT
1 2 2 2		Corrective Assignment to correct the RECEIVING PARTY DATA: ASSIGNEE previously recorded on Reel 050746 Frame 0820. Assignor(s) hereby confirms the ASSIGNMENT.

CONVEYING PARTY DATA

Name	Execution Date
WOLFGANG SAUER	01/27/2018
FRANZ KUBAT	12/27/2017

RECEIVING PARTY DATA

Name:	EPCOS AG
Street Address:	STMARTIN-STR. 53
City:	MUNICH
State/Country:	GERMANY
Postal Code:	81669

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15763008

CORRESPONDENCE DATA

Fax Number: (713)623-4846

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.

713-623-4844 Phone:

Email: psdocketing@pattersonsheridan.com,

sdominguez@pattersonsheridan.com

Correspondent Name: PATTERSON + SHERIDAN, LLP

24 GREENWAY PLAZA Address Line 1:

Address Line 2: **SUITE 1600**

HOUSTON, TEXAS 77046 Address Line 4:

ATTORNEY DOCKET NUMBER:	172221USP
NAME OF SUBMITTER:	STEVEN E. ROBERTS
SIGNATURE:	/Steven E. ROBERTS/
DATE SIGNED:	07/02/2020

Total Attachments: 5

source=172221 ASG(Inv-to-EPCOS) signed#page1.tif source=172221_ASG(Inv-to-EPCOS)_signed#page2.tif

source=172221_ASG(Inv-to-EPCOS)_signed#page3.tif source=172221_ASG(Inv-to-EPCOS)_signed#page4.tif source=172221_ASG(Inv-to-EPCOS)_signed#page5.tif

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5774055

SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT
	Corrective Assignment to correct the INVENTOR 1, SIGNATURE DATE previously recorded on Reel 050604 Frame 0457. Assignor(s) hereby confirms the 12/27/2018.

CONVEYING PARTY DATA

 Name	Execution Date
 WOLFGANG SAUER	01/27/2018
 FRANZ KUBAT	12/27/2017

RECEIVING PARTY DATA

Name:	QUALCOMM INCORPORATED
Street Address:	5775 MOREHOUSE DRIVE
City:	SAN DIEGO
State/Country:	CALIFORNIA
Postal Code:	92121-1714

PROPERTY NUMBERS Total: 1

***************************************	Property Type	Number	-
***************************************	Application Number:	15763008	-

CORRESPONDENCE DATA

Fax Number: (713)623-4846

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: 713-623-4844

Email: rross@pattersonsheridan.com, psdocketing@pattersonsheridan.com

Correspondent Name: PATTERSON & SHERIDAN, LLP

Address Line 1: 24 GREENWAY PLAZA

Address Line 2: SUITE 1600

Address Line 4: HOUSTON, TEXAS 77046

ATTORNEY DOCKET NUMBER:	172221USP
NAME OF SUBMITTER:	STEVEN E. ROBERTS
SIGNATURE:	/STEVEN E. ROBERTS/
DATE SIGNED:	10/17/2019

Total Attachments: 6

source=172221_ASG(Inv-to-EPCOS)_signed#page1.tif source=172221_ASG(Inv-to-EPCOS)_signed#page2.tif

ASSIGNMENT

WHEREAS, WE,

- 1. Wolfgang SAUER, a citizen of Bermany
- 2. Franz KUBAT, a citizen of Germany,

have conceived of one or more processes, methods, machines, articles of manufacture, compositions of matter, inventions, discoveries or new or useful improvements as described in an invention disclosure form with the title SAW-FILTER MIT UNTERDRÜCKTER SCHER-MODE and as further specified in the patent applications mentioned below (collectively the "INVENTIONS") for which WE have executed and/or may execute one or more patent applications therefor; and

WHEREAS, EPCOS AG (hereinafter "ASSIGNEE"), a company incorporated under the laws of Germany with its place of business at St.-Martin-Str. 53, 81669 Munich, Germany, desires to acquire or otherwise obtain the entire right, title, and interest in and to said INVENTIONS, including, all patent applications therefor, and all patents that have granted or may be granted hereafter thereon, including but not limited to those identified below.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, WE do hereby acknowledge that WE have sold, assigned, conveyed, and transferred, and by these presents do hereby sell, assign, convey, and transfer, unto ASSIGNEE, its successors, its legal representatives, and its assigns, the entire right, title, and interest throughout the world in and to said INVENTIONS, including all patent applications therefor that may have been filed or may be filed hereafter for said INVENTIONS in the United States, or under International Conventions, Treaties, or Agreements, including but not limited to International Patent Cooperation Treaty Application No. PCT/EP2016/072284, filed 09/20/2016, Reference No. 172221WO, and all provisional applications relating thereto, together with German Patent Application No. 102015116223.7, filed 09/25/2015, Reference No. 172221DE, and all provisional applications relating thereto, and divisional applications, renewal applications, continuation applications, continuation-in-part applications, and all issued patents of the United States which may have granted or may be granted hereafter thereon and all reissues, renewals, reexaminations, and extensions to any of the foregoing and all patents issuing thereon in the United States;

AND WE further do acknowledge and agree that WE have sold, assigned, conveyed, and transferred, and by these presents do hereby sell, assign, convey, and transfer, unto ASSIGNEE, its successors, its legal representatives, and its assigns, all rights of priority under International Conventions, Treaties, or Agreements, and the entire right, title, and interest throughout the world in said INVENTIONS, including all patent applications therefor that may have been filed or may be filed hereafter for said INVENTIONS in any foreign country, countries, or treaty/union organizations, and all divisional applications, renewal applications, continuation applications, continuation-in-part applications, patent of addition applications, confirmation applications, validation applications, utility model applications, and all issued patents which may have granted

EHF Ref.: P2015,0220 AA 01 - P2015,0805 (FKH/RN)
PATENT
172221WO
Page 2 of 2

or may be granted hereafter for said INVENTIONS in any country or countries foreign to the United States, and all reissues, renewals, reexaminations, and extensions thereof;

AND WE DO HEREBY authorize and request the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents on applications or registrations, to issue all patents for said INVENTIONS to said ASSIGNEE, its successors, its legal representatives and its assigns, in accordance with the terms of this instrument:

AND WE DO HEREBY sell, assign, transfer, and convey to said ASSIGNEE, its successors, its legal representatives, and its assigns all claims for damages and all remedies arising out of or relating to any violation(s) of any of the rights assigned hereby that have or may have accrued prior to the date of assignment to said ASSIGNEE, or may accrue hereafter, including, but not limited to the right to sue for, seek, obtain, collect, recover, and retain damages and any ongoing or prospective royalties to which WE may be entitled, or that WE may collect for any infringement or from any settlement or agreement related to any of said patents before or after issuance;

AND WE HEREBY agree that WE will perform those acts reasonably requested by ASSIGNEE which are required to record the transfer of rights in said INVENTIONS to ASSIGNEE throughout the world, including signing all lawful papers, applications, certificates, declarations and/or oaths.

Done at	Merina .	on Jan. 27, 2018	W. Paus	
	LOCSATION	DATE	Wolfgang SAUER	*******
Done at	LOCATION	On	Franz KURAT	,,

ASSIGNMENT

WHEREAS, WE,

1. Wolfgang SAUER, a citizen of

2. Franz KUBAT, a citizen of ferances,

have conceived of one or more processes, methods, machines, articles of manufacture, designs, compositions of matter, inventions, discoveries or new or useful improvements relating to SAW FILTER HAVING SUPPRESSED SHEAR MODE (collectively the "INVENTIONS") for which WE have executed and/or may execute one or more patent applications therefor; and

WHEREAS, EPCOS AG (hereinafter "ASSIGNEE"), a company incorporated under the laws of Germany with its place of business at St.-Martin-Str. 53, 81669 Munich, Germany, desires to acquire or otherwise obtain the entire right, title, and interest in and to said INVENTIONS, including all inventions related thereto or thereof, all patent applications therefor, and all patents that have granted or may be granted hereafter thereon, including but not limited to those identified below.

NOW. THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, I do hereby acknowledge that I have sold, assigned, conveyed, and transferred, and by these presents do hereby sell, assign, convey, and transfer, unto ASSIGNEE, its successors, its legal representatives, and its assigns, the entire right, title, and interest throughout the world in and to said INVENTIONS, including all patent applications therefor that may have been filed or may be filed hereafter for said INVENTIONS in the United States, or under International Conventions, Treaties, or Agreements, including but not limited to International Patent Cooperation Treaty Application No. PCT/EP2016/072284, filed 09/20/2016, Reference No. 172221WO, and all provisional applications relating thereto, together with German Patent Application No. 102015116223.7, filed 09/25/2015, Reference No. 172221DE, and divisional applications, renewal applications, continuation applications, continuation-in-part applications, and design applications thereof, and all issued patents of the United States which may have granted or may be granted hereafter thereon and all reissues, renewals, reexaminations, and extensions to any of the foregoing and all patents issuing thereon in the United States;

AND WE further do acknowledge and agree that WE have sold, assigned, conveyed, and transferred, and by these presents do hereby self, assign, convey, and transfer, unto ASSIGNEE, its successors, its legal representatives, and its assigns, all rights of priority under International Conventions, Treaties, or Agreements, and the entire right, title, and interest throughout the world in said INVENTIONS, including all inventions related thereto or thereof, and all patent applications therefor that may have been filed or may be filed hereafter for said INVENTIONS in any foreign country, countries, or treaty/union organizations, and all divisional applications, renewal applications, continuation applications, continuation applications, validation applications, utility model applications, and design applications thereof, and all issued patents which may have granted or

may be granted hereafter for said INVENTIONS in any country or countries foreign to the United States, and all reissues, renewals, reexaminations, and extensions thereof:

AND WE DO HEREBY authorize and request the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents on applications or registrations, to issue all patents for said INVENTIONS to said ASSIGNEE, its successors, its legal representatives and its assigns, in accordance with the terms of this instrument;

AND WE DO HEREBY sell, assign, transfer, and convey to said ASSIGNEE, its successors, its legal representatives, and its assigns all claims for damages and all remedies arising out of or relating to any violation(s) of any of the rights assigned hereby that have or may have accrued prior to the date of assignment to said ASSIGNEE, or may accrue hereafter, including, but not limited to the right to sue for, seek, obtain, collect, recover, and retain damages and any ongoing or prospective royalties to which WE may be entitled, or that WE may collect for any infringement or from any settlement or agreement related to any of said patents before or after issuance;

AND WE HEREBY agree that WE will perform those acts reasonably requested by ASSIGNEE which are required to record the transfer of rights in said INVENTIONS to ASSIGNEE throughout the world, including signing all lawful papers, applications, certificates, declarations and/or oaths.

Done at		, on		
	LOCATION	DATE	Wolfgang SAUER	
Done at _	tania	, on 4, 10, 10 12	<u> 04</u>	
	LOCATION	DATE	Franz KUBAT	

PATENT REEL: 053119 FRAME: 0734

RECORDED: 07/02/2020