

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT4245032

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
TIMOTHY DONALD GATHMAN	01/11/2017
OJAS CHOKSI	01/19/2017
ALEKSANDAR MIODRAG TASIC	01/11/2017
SASHA VUJCIC	01/11/2017
CHIRAG DIPAK PATEL	01/13/2017
WU-HSIN CHEN	01/16/2017
KLAAS VAN ZALINGE	01/16/2017
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:	15352402
CORRESPONDENCE DATA	
Fax Number:	(310)201-5219
<i>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.</i>	
Phone:	310.277.7200
Email:	Qualcomm-USPTO@seyfarth.com
Correspondent Name:	SEYFARTH SHAW LLP
Address Line 1:	2029 CENTURY PARK EAST, SUITE 3500
Address Line 4:	LOS ANGELES, CALIFORNIA 90067
ATTORNEY DOCKET NUMBER:	162774
NAME OF SUBMITTER:	CORNELL D. CROSBY
SIGNATURE:	/Cornell D. Crosby/
DATE SIGNED:	01/26/2017

Total Attachments: 21

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ASSIGNMENT

WHEREAS, WE,

1. **Timothy Donald GATHMAN**, a citizen of The United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A., and a resident of San Diego, California,
2. **Ojas CHOKSI**, a citizen of India, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A., and a resident of San Diego, California,
3. **Aleksandar Miodrag TASIC**, a citizen of The Netherlands, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A., and a resident of San Diego, California,
4. **Sasha VUJCIC**, a citizen of The United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A., and a resident of San Diego, California,
5. **Chirag Dipak PATEL**, a citizen of The United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A., and a resident of San Diego, California,
6. **Wu-Hsin CHEN**, a citizen of Taiwan, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A., and a resident of San Diego, California,
7. **Klaas VAN ZALINGE**, a citizen of The Netherlands, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A., and a resident of La Jolla, California,

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 **RECONFIGURABLE RADIO FREQUENCY (RF) BANDSTOP / INTERMEDIATE FREQUENCY (IF) BANDPASS FILTER** (collectively the "INVENTIONS") for which WE have executed and/or may execute one or more patent applications therefor, and

WHEREAS, QUALCOMM Incorporated (hereinafter "ASSIGNEE"), a Delaware corporation, having a place of business at 5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A., 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, 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, including but not limited to U.S. Application No(s). **15/352,402**, filed **November 15, 2016**, Qualcomm Reference No. **162774**, and all provisional applications relating thereto, together with U.S. Provisional Application No(s). **62/374,182**, filed **August 12, 2016**, Qualcomm Reference No. **162774P1**, (and do hereby authorize ASSIGNEE and its representative to hereafter add herein such application number(s) and/or filing date(s) when known), and all 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 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 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-in-part applications, patent of addition applications, confirmation 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;

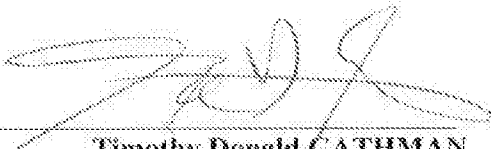
AND WE DO HEREBY authorize and request the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents on applications or registrations, to issue all patents for said INVENTIONS to said ASSIGNEE, its successors, 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 covenant and agree that WE will communicate promptly to said ASSIGNEE, its successors, its legal representatives, and its assigns, any facts known to us respecting said INVENTIONS, and will testify in any legal proceeding, sign all lawful papers, execute all applications and certificates, make all rightful declarations and/or oaths, and provide all lawful assistance to said ASSIGNEE, its successors, its legal representatives and its assigns, to obtain and enforce patent protection for said INVENTIONS in all countries;

AND WE HEREBY covenant that WE will not execute any writing or do any act whatsoever conflicting with these presents.

Done at San Diego, CA, on 1/11/2017
LOCATION DATE


Timothy Donald GATHMAN

Done at _____, on _____
LOCATION DATE

Ojas CHOKSI

Done at _____, on _____
LOCATION DATE

Aleksandar Miodrag TASIC

Done at _____, on _____
LOCATION DATE

Sasha VUJICIC

Done at _____, on _____
LOCATION DATE

Chirag Dipak PATEL

Done at _____, on _____
LOCATION DATE

Wu-Hsin CHEN

Done at _____, on _____
LOCATION DATE

Klaas VAN ZALINGE

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WHEREAS, QUALCOMM Incorporated (hereinafter "ASSIGNEE"), a Delaware corporation, having a place of business at 5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A., 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, 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, including but not limited to U.S. Application No(s). **15/352,402**, filed **November 15, 2016**, Qualcomm Reference No. **162774**, and all provisional applications relating thereto, together with U.S. Provisional Application No(s). **62/374,182**, filed **August 12, 2016**, Qualcomm Reference No. **162774P1**, (and do hereby authorize ASSIGNEE and its representative to hereafter add herein such application number(s) and/or filing date(s) when known), and all 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 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 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-in-part applications, patent of addition applications, confirmation 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 covenant and agree that WE will communicate promptly to said ASSIGNEE, its successors, its legal representatives, and its assigns, any facts known to us respecting said INVENTIONS, and will testify in any legal proceeding, sign all lawful papers, execute all applications and certificates, make all rightful declarations and/or oaths, and provide all lawful assistance to said ASSIGNEE, its successors, its legal representatives and its assigns, to obtain and enforce patent protection for said INVENTIONS in all countries;

AND WE HEREBY covenant that WE will not execute any writing or do any act whatsoever conflicting with these presents.

Done at _____, on _____
LOCATION DATE Timothy Donald GATHMAN

Done at SAN DIEGO, on 1/19/2017
LOCATION DATE 
Ojas CHOKSI

Done at _____, on _____
LOCATION DATE Aleksandar Miodrag TASIC

Done at _____, on _____
LOCATION DATE Sasha VUJICIC

Done at _____, on _____
LOCATION DATE Chirag Dipak PATEL

Done at _____, on _____
LOCATION DATE Wu-Hsin CHEN

Done at _____, on _____
LOCATION DATE Klaas VAN ZALINGE

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WHEREAS, QUALCOMM Incorporated (hereinafter "ASSIGNEE"), a Delaware corporation, having a place of business at 5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A., 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, 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, including but not limited to U.S. Application No(s). **15/352,402**, filed **November 15, 2016**, Qualcomm Reference No. **162774**, and all provisional applications relating thereto, together with U.S. Provisional Application No(s). **62/374,182**, filed **August 12, 2016**, Qualcomm Reference No. **162774P1**, (and do hereby authorize ASSIGNEE and its representative to hereafter add herein such application number(s) and/or filing date(s) when known), and all 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;

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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;

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AND WE HEREBY covenant and agree that WE will communicate promptly to said ASSIGNEE, its successors, its legal representatives, and its assigns, any facts known to us respecting said INVENTIONS, and will testify in any legal proceeding, sign all lawful papers, execute all applications and certificates, make all rightful declarations and/or oaths, and provide all lawful assistance to said ASSIGNEE, its successors, its legal representatives and its assigns, to obtain and enforce patent protection for said INVENTIONS in all countries;

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Done at _____, on _____
LOCATION DATE Timothy Donald GATHMAN

Done at _____, on _____
LOCATION DATE Ojas CHOKSI

Done at San Jose, on 1/11/12
LOCATION DATE Aleksandar Miodrag TASIC

Done at _____, on _____
LOCATION DATE Sasha VUJICIC

Done at _____, on _____
LOCATION DATE Chirag Dipak PATEL

Done at _____, on _____
LOCATION DATE Wu-Hsin CHEN

Done at _____, on _____
LOCATION DATE Klaas VAN ZALINGE

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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 **RECONFIGURABLE RADIO FREQUENCY (RF) BANDSTOP / INTERMEDIATE FREQUENCY (IF) BANDPASS FILTER** (collectively the "INVENTIONS") for which WE have executed and/or may execute one or more patent applications therefor; and

WHEREAS, QUALCOMM Incorporated (hereinafter "ASSIGNEE"), a Delaware corporation, having a place of business at 5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A., 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, 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, including but not limited to U.S. Application No(s). **15/352,402**, filed **November 15, 2016**, Qualcomm Reference No. **162774**, and all provisional applications relating thereto, together with U.S. Provisional Application No(s). **62/374,182**, filed **August 12, 2016**, Qualcomm Reference No. **162774P1**, (and do hereby authorize ASSIGNEE and its representative to hereafter add herein such application number(s) and/or filing date(s) when known), and all 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 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 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-in-part applications, patent of addition applications, confirmation 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 covenant and agree that WE will communicate promptly to said ASSIGNEE, its successors, its legal representatives, and its assigns, any facts known to us respecting said INVENTIONS, and will testify in any legal proceeding, sign all lawful papers, execute all applications and certificates, make all rightful declarations and/or oaths, and provide all lawful assistance to said ASSIGNEE, its successors, its legal representatives and its assigns, to obtain and enforce patent protection for said INVENTIONS in all countries;

AND WE HEREBY covenant that WE will not execute any writing or do any act whatsoever conflicting with these presents.

Done at _____, on _____
LOCATION DATE Timothy Donald GATHMAN

Done at _____, on _____
LOCATION DATE Ojas CHOKSI

Done at _____, on _____
LOCATION DATE Aleksandar Miodrag TASIC

Done at _____, on _____
LOCATION DATE Sasha VUJICIC

Done at SAN DIEGO, on 1/13/07
LOCATION DATE Chirag Dipak PATEL

Done at _____, on _____
LOCATION DATE Wu-Hsin CHEN

Done at _____, on _____
LOCATION DATE Klaas VANZALINGE

ASSIGNMENT

WHEREAS, WE,

1. Timothy Donald GATHMAN, a citizen of The United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A., and a resident of San Diego, California,
2. Ojas CHOKSI, a citizen of India, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A., and a resident of San Diego, California,
3. Aleksandar Miodrag TASIC, a citizen of The Netherlands, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A., and a resident of San Diego, California,
4. Sasha VUJICIC, a citizen of The United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A., and a resident of San Diego, California,
5. Chirag Dipak PATEL, a citizen of The United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A., and a resident of San Diego, California,
6. Wu-Hsia CHEN, a citizen of Taiwan, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A., and a resident of San Diego, California,
7. Klaas VAN ZALINGE, a citizen of The Netherlands, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A., and a resident of La Jolla, California,

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 RECONFIGURABLE RADIO FREQUENCY (RF) BANDSTOP / INTERMEDIATE FREQUENCY (IF) BANDPASS FILTER (collectively the "INVENTIONS") for which WE have executed and/or may execute one or more patent applications therefor; and

WHEREAS, QUALCOMM Incorporated (hereinafter "ASSIGNEE"), a Delaware corporation, having a place of business at 5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A., 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, 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, including but not limited to U.S. Application No(s). 15/352,402, filed November 15, 2016, Qualcomm Reference No. 162774, and all provisional applications relating thereto, together with U.S. Provisional Application No(s). 62/374,182, filed August 12, 2016, Qualcomm Reference No. 162774P1. (and do hereby authorize ASSIGNEE and its representative to hereafter add herein such application number(s) and/or filing date(s) when known), and all 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 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 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-in-part applications, patent of addition applications, confirmation 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 covenant and agree that WE will communicate promptly to said ASSIGNEE, its successors, its legal representatives, and its assigns, any facts known to us respecting said INVENTIONS, and will testify in any legal proceeding, sign all lawful papers, execute all applications and certificates, make all rightful declarations and/or oaths, and provide all lawful assistance to said ASSIGNEE, its successors, its legal representatives and its assigns, to obtain and enforce patent protection for said INVENTIONS in all countries;

AND WE HEREBY covenant that WE will not execute any writing or do any act whatsoever conflicting with these presents.


Done at _____, on _____
LOCATION DATE Timothy Donald GATHMAN

Done at _____, on _____
LOCATION DATE Ojas CHOKSI

Done at _____, on _____
LOCATION DATE Aleksandar Miodrag TASIC

Done at _____, on _____
LOCATION DATE Sasha VIJICIC

Done at _____, on _____
LOCATION DATE Chirag Dipak PATEL

Done at San Diego, on 1/16/2017
LOCATION DATE 
Wu-Hsin CHEN

Done at _____, on _____
LOCATION DATE Klaas VAN ZALINGE

ASSIGNMENT

WHEREAS, WE,

1. **Timothy Donald GATHMAN**, a citizen of The United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A., and a resident of San Diego, California,
2. **Ojas CHOKSI**, a citizen of India, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A., and a resident of San Diego, California,
3. **Aleksandar Miodrag TASIC**, a citizen of The Netherlands, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A., and a resident of San Diego, California,
4. **Sasha VUJCIC**, a citizen of The United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A., and a resident of San Diego, California,
5. **Chirag Dipak PATEL**, a citizen of The United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A., and a resident of San Diego, California,
6. **Wu-Hsin CHEN**, a citizen of Taiwan, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A., and a resident of San Diego, California,
7. **Klaas VAN ZALINGE**, a citizen of The Netherlands, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A., and a resident of La Jolla, California,

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 **RECONFIGURABLE RADIO FREQUENCY (RF) BANDSTOP / INTERMEDIATE FREQUENCY (IF) BANDPASS FILTER** (collectively the "INVENTIONS") for which WE have executed and/or may execute one or more patent applications therefor; and

WHEREAS, QUALCOMM Incorporated (hereinafter "ASSIGNEE"), a Delaware corporation, having a place of business at 5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A., 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, 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, including but not limited to U.S. Application No(s). 15/352,402, filed November 15, 2016, Qualcomm Reference No. 162774, and all provisional applications relating thereto, together with U.S. Provisional Application No(s). 62/374,182, filed August 12, 2016, Qualcomm Reference No. 162774P1, (and do hereby authorize ASSIGNEE and its representative to hereafter add herein such application number(s) and/or filing date(s) when known), and all 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 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 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-in-part applications, patent of addition applications, confirmation 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 covenant and agree that WE will communicate promptly to said ASSIGNEE, its successors, its legal representatives, and its assigns, any facts known to us respecting said INVENTIONS, and will testify in any legal proceeding, sign all lawful papers, execute all applications and certificates, make all rightful declarations and/or oaths, and provide all lawful assistance to said ASSIGNEE, its successors, its legal representatives and its assigns, to obtain and enforce patent protection for said INVENTIONS in all countries.

AND WE HEREBY covenant that WE will not execute any writing or do any act whatsoever conflicting with these presents.

Done at _____, on _____
LOCATION DATE Timothy Donald GATHMAN

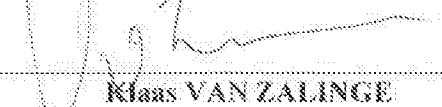
Done at _____, on _____
LOCATION DATE Ojas CHOKSI

Done at _____, on _____
LOCATION DATE Aleksandar Miodrag TASIC

Done at _____, on _____
LOCATION DATE Sasha VUJICIC

Done at _____, on _____
LOCATION DATE Chirag Dipak PATEL

Done at _____, on _____
LOCATION DATE Wu-Hsin CHEN

Done at San Diego, on 1/16/17
LOCATION DATE

Klaas VAN ZALINGE