502398528 06/26/2013

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Wu-Hsin Chen	06/18/2013
Sriramgopal Sridhara	06/24/2013
Li Liu	06/24/2013

RECEIVING PARTY DATA

Name:	QUALCOMM Incorporated		
Street Address:	5775 Morehouse Drive		
Internal Address:	Patent Department/Central Administration		
City:	San Diego		
State/Country:	CALIFORNIA		
Postal Code:	92121		

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	13926631	

CORRESPONDENCE DATA

Fax Number: 8586582502

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 858-845-4265

Email: patent.docketing.us@qualcomm.com
Correspondent Name: QUALCOMM INCORPORATED

Address Line 1: 5775 MOREHOUSE DR.

Address Line 4: SAN DIEGO, CALIFORNIA 92121

	PATENT
Signature:	/Audrey Fontanilla/
NAME OF SUBMITTER:	Audrey Fontanilla
ATTORNEY DOCKET NUMBER:	131181

REEL: 030688 FRAME: 0588

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Date:	06/26/2013
Total Attachments: 9 source=131181_2013-06-26_Assignment#p source=131181_2013-06-26_Assignment#p source=131181_2013-06-26_Assignment#p source=131181_2013-06-26_Assignment#p source=131181_2013-06-26_Assignment#p source=131181_2013-06-26_Assignment#p source=131181_2013-06-26_Assignment#p source=131181_2013-06-26_Assignment#p source=131181_2013-06-26_Assignment#p	age2.tif age3.tif age4.tif age5.tif age5.tif age6.tif age6.tif age7.tif age8.tif

ASSIGNMENT

WHEREAS, WE,

- Wu-Hsin Chen, a citizen of China, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, CA.
- Sriramgopal Sridhara, a citizen of India, having a mailing address located at 5775
 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, CA,
- Li Liu, a citizen of United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, CA.

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 FREQUENCY DIVIDER WITH DUTY CYCLE ADJUSTMENT WITHIN FEEDBACK LOOP (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). 13/926,631 filed June 25, 2013. QUALCOMM Reference No. 131181, and all provisional applications relating thereto, (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 bereafter 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 to 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 account prior to the date of assignment to said ASSIGNEE, or may account hereafter, including, but not limited to the right to suc 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 tawful assistance to said ASSIGNEE, its successors, its legal representatives and its assigns, to obtain and enforce patent protection for said INVENTIONS in all countries;

PATENT QUALCOMM Sef. No. 131181 Page 3 613

AND WE HEREBY represent that WE have full and exclusive, unencumbered right to sell, assign, convey and transfer all subject matter herein, and hereby covenant that WE have not and will not execute any writing or do any act whatsoever conflicting with these presents.

Done at Sin Diego	, on 48/03	- With Grea
LOCATION	DATE	Wu-Hsin Chen
Done at	• OB	
LOCATION	DATE	Sriramgopal Sridhara
Done at	. 016	
LOCATION	DATE	Li Liu

ASSIGNMENT

WHEREAS, WE,

- 1. Wu-Hsin Chen, a citizen of China, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, CA,
- 2. Sriramgopal Sridhara, a citizen of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, CA,
- 3. Li Liu, a citizen of United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, CA,

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 FREQUENCY DIVIDER WITH DUTY CYCLE ADJUSTMENT WITHIN FEEDBACK LOOP (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.

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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

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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;

PATENT QUALCOMM Ref. No. 131181 Page 3 of 3

AND WE HEREBY represent that WE have full and exclusive, unencumbered right to sell, assign, convey and transfer all subject matter herein, and hereby covenant that WE have not and will not execute any writing or do any act whatsoever conflicting with these presents.

Done at .	on	
LOCATION	DATE	Wu-Hsin Chen
Done at <u>SAN DIEGO, (A</u> , LOCATION	on 06/24/2013	5504
	DATE	Sriramgopal Sridhara
Done at ,	on	
LOCATION	DATE	T.\$ T.3:s

ASSIGNMENT

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- 2. Sriramgopal Sridhara, a citizen of India, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714 and a resident of San Diego, CA,
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Done at		, on		
	LOCATION	man, market	DATE	Wu-Hsin Chen
Done at		, on		
_	LOCATION		DATE	Sriramgopal Sridhara
				11
Done at	54 9red 1	, on	6/24/2013	
	LOCATION		DATE	Li Liu

RECORDED: 06/26/2013

PATENT

REEL: 030688 FRAME: 0598