502490116 09/10/2013

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	

CONVEYING PARTY DATA

Name	Execution Date
Christopher Paul Frascati	09/05/2013
Murat Balci	09/05/2013
Avinash Seetharamaiah	09/05/2013
Andrew Evan Gruber	08/29/2013
Alexei Vladimirovich Bourd	08/30/2013

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:	14023170

CORRESPONDENCE DATA

Fax Number: 6517351102

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

Phone: 651 735 1100

Email: pairdocketing@ssiplaw.com

Correspondent Name: Shumaker & Sieffert, P. A.

Address Line 1: 1625 Radio Drive, Suite 300

Address Line 4: Woodbury, MINNESOTA 55125

Signature:	/Susan J. Daly/	
NAME OF SUBMITTER:	Susan J. Daly	
ATTORNEY DOCKET NUMBER:	1212-532US01	

502490116 REEL: 031177 FRAME: 0827

OP \$40,00 14023170

Date:	09/10/2013
Total Attachments: 5 source=131926_Assignment#page1.tif source=131926_Assignment#page2.tif source=131926_Assignment#page3.tif source=131926_Assignment#page4.tif source=131926_Assignment#page5.tif	

ASSIGNMENT

WHEREAS, WE,

- 1. Christopher Paul Frascati, a citizen of the United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of Oviedo, FL,
- 2. Murat Balci, a citizen of Turkey, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of Orlando, FL,
- 3. Avinash Seetharamaiah, a citizen of the United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of Chuluota, FL,
- 4. Andrew Evan Gruber, a citizen of the United States of America, having a mailing address located at 5775 Morehouse Drive, San Diego, CA 92121-1714, and a resident of Arlington, MA,
- 5. Alexei Vladimirovich Bourd, a citizen of the 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 FAULT-TOLERANT PREEMPTION MECHANISM AT ARBITRARY CONTROL POINTS FOR GRAPHICS PROCESSING (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). 14/023,170 filed Sept. 10, 2013 Qualcomm Reference No. 131926, 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 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.

		1 /	and the second s
Done at	Oclardo, on_	9/5/2013	
	LOCATION	DATE	Christopher Paul Frascati
Done at .	Orlando, on		Muorel
	LOCATION	DATE	// Murat Balci
Done at	Orlando, on_	09/05/2013	
	LOCATION	DATE	Avinash Seetharamaiah
Done at	, on _		
	LOCATION	DATE	Andrew Evan Gruber
Done at	, on _		
	LOCATION	DATE	Alexei Vladimirovich Bourd

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	Christopher Paul Frascati
Done at _		, on	· · · · · · · · · · · · · · · · · · ·
	LOCATION	DATE	Murat Balci
Done at _		, on	
	LOCATION	DATE	Avinash Seetharamaiah
Done at	bybo,MA	_, on Aug 29, 2013	al Ell
	LOCATION	DATE	Andrew Evan Gruber
Done at _		, on	
	LOCATION	DATE	Alexei Vladimirovich Bourd

PATENT QUALCOMM Ref. No. 131926 Page 3 of 3

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	Christopher Paul Frascati
Done at _		on	
	LOCATION	DATE	Murat Balci
Done at _		on	
	LOCATION	DATE	Avinash Seetharamaiah
Done at _		on	
	LOCATION	DATE	Andrew Evan Gruber
Done at	an Dieso CA.	on <u>\$ 30/2015</u>	- Alexan Vand
	LOCATION	DATE	Alexei Vladimirovich Rourd

PATENT REEL: 031177 FRAME: 0833

RECORDED: 09/10/2013