PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT2908292

SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT
NATURE OF CONVEYANCE:	Corrective Assignment to correct the NAME OF THE THIRD ASSIGNOR FROM "BERGAN, CHARLES" TO "BERGAN, CHARLES A." previously recorded on Reel 026905 Frame 0116. Assignor(s) hereby confirms the ASSIGNMENT OF ASSIGNORS INTEREST.

CONVEYING PARTY DATA

Name	Execution Date
LIONEL J. GARIN	09/14/2011
AYMAN NAGUIB	09/09/2011
CHARLES A. BERGAN	09/13/2011

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:	13173984

CORRESPONDENCE DATA

Fax Number: (408)378-7770

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: 4083787777

Email: dchan@svpatentgroup.com

Correspondent Name: SILICON VALLEY PATENT GROUP LLP

Address Line 1: 4010 MOORPARK AVENUE

Address Line 2: SUITE 210

Address Line 4: SAN JOSE, CALIFORNIA 95117

ATTORNEY DOCKET NUMBER:	090498
NAME OF SUBMITTER:	BRYAN H. WYMAN
SIGNATURE:	/Bryan H. WYMAN/
DATE SIGNED:	06/20/2014

Total Attachments: 11

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PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION	ТҮРЕ:	NEW ASSIGNMENT
	CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Lionel J Garin	
Ayman Naguib	09/09/2011
Charles Bergan	09/13/2011

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:	13173984

CORRESPONDENCE DATA

Fax Number: (408)982-8210 **Phone:** 4083787777

Email: bwyman@svpatentgroup.com

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be

sent via US Mail.

Correspondent Name: Bryan H Wyman

Address Line 1: 4010 Moorpark Ave, Ste 210

Address Line 4: San Jose, CALIFORNIA 95117-1843

ATTORNEY DOCKET NUMBER:	Q090498USBW
NAME OF SUBMITTER:	Bryan H Wyman
Signature:	/Bryan H WYMAN/
Date:	09/14/2011

Total Attachments: 9

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RECEIPT INFORMATION

 EPAS ID:
 PAT1688560

 Receipt Date:
 09/14/2011

 Fee Amount:
 \$40

ASSIGNMENT

WHEREAS, WE.

- 1. Lionel J. Garin, a citizen of the United States, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A. and a resident of Palo Alto, CA, U.S.A.,
- Ayman Naguib, a citizen of the United States, having a mailing address located at 5775
 Morehouse Drive, San Diego, California 92121-1714, U.S.A. and a resident of Cupertino, CA, U.S.A.,
- 3. Charles A. Bergan, a citizen of the United States, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A. and a resident of Cardiff, CA, U.S.A.,

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 CAMERA-BASED POSITION LOCATION AND NAVIGATION BASED ON IMAGE 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). 13/173,984, filed June 30, 2011, Qualcomm Reference No. 090498, and all provisional applications relating thereto, together with U.S. Provisional Application No(s). 61/431,742, filed January 11, 2011, Qualcomm Reference No. 090498P1, (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 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 SANTA CLASSION	1 9 1 4 11 DATE	QUALCOMM Ref. No. 090498 Page 3 of 3 Lionel J. Garin
Done at, or, or,	DATE	Ayman Naguib
Done at, or, or	1DATE	Charles A. Bergan

ASSIGNMENT

WHEREAS, WE.

- 1. Lionel J. Garin, a citizen of the United States, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A. and a resident of Palo Alto, CA, U.S.A..
- 2. **Ayman Naguib,** a citizen of the United States, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A. and a resident of Cupertino, CA, U.S.A.,
- 3. Charles A. Bergan, a citizen of the United States, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A. and a resident of Cardiff, CA, U.S.A..

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 CAMERA-BASED POSITION LOCATION AND NAVIGATION BASED ON IMAGE 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). 13/173,984, filed June 30, 2011, Qualcomm Reference No. 090498, and all provisional applications relating thereto, together with U.S. Provisional Application No(s). 61/431,742, filed January 11, 2011, Qualcomm Reference No. 090498P1, (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 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.

PATENT QUALCOMM Ref. No. 090498 Page 3 of 3

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	LOCATION	DATE	Lionel J. Garin
S Done at	Employ Clares, on	9/9/201	
south	LOCATION	DATE	Ayman Naguib
Done at	, on		
	LOCATION	PEAG	Charles A. Roroan

ASSIGNMENT

WHEREAS, WE,

- 1. Lionel J. Garin, a citizen of the United States, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A. and a resident of Palo Alto, CA, U.S.A.,
- 2. Ayman Naguib, a citizen of the United States, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A. and a resident of Cupertino, CA, U.S.A.,
- 3. Charles A. Bergan, a citizen of the United States, having a mailing address located at 5775 Morehouse Drive, San Diego, California 92121-1714, U.S.A. and a resident of Cardiff, CA, U.S.A.,

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 CAMERA-BASED POSITION LOCATION AND NAVIGATION BASED ON IMAGE PROCESSING (collectively the "INVENTIONS") for which WE have executed and/or may execute one or more patent applications therefor; and

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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). 13/173,984, filed June 30, 2011, Qualcomm Reference No. 090498, and all provisional applications relating thereto, together with U.S. Provisional Application No(s). 61/431,742, filed January 11, 2011, Qualcomm Reference No. 090498P1, (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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PATENT QUALCOMM Ref. No. 090498 Page 3 of 3

Done at		, ón	
-	LOCATION	DATE	Lionel J. Garin
Done at _		, on	
	LOCATION	DATE	Ayman Naguib
Done at	ANDIESO LOCATION	on <u>Sp B, 201</u>	Charles A. Bergan

PATENT REEL: 033205 FRAME: 0073

RECORDED: 06/20/2014