Client Code: QCO.107A/QMT060418 RE(

To the Director, U.S. Patent and Trademar

103287672

,inal documents or copy thereof.

| Name of conveying party(ies): (List using letters or numbers for multiple parties) | 2. Name and address of receiving party(ies): Name: QUALCOMM MEMS Technologies, Inc. Internal Address: Street Address: 5775 Morehouse Drive City: San Diego State: CA ZIP: 92121 Additional name(s) of receiving party(ies) attached? () Yes (X) No | |
|---|--|--|
| 1.) Xiaoming Yan 2.) Brian Arbuckle 3.) Evgeni Gousev 4.) Ming-Hau Tung Additional name(s) of conveying party(ies) attached? () Yes (X) No | | |
| Nature of conveyance: (X) Assignment | | |
| () Other: Execution Date: (List as in section 1 if multiple signatures) 1.) July 28, 2006 2.) July 31, 2006 3.) July 31, 2006 4.) July 28, 2006 | 4. US or PCT Application number(s) or US Patent number(s): (X) Application(s) filed herewith Additional numbers attached? () Yes (X) No | |
| Party to whom correspondence concerning document should be mailed: | Total number of applications and patents involved: 1 | |
| Customer No. 59,747 Address: Knobbe, Martens, Olson & Bear, LLP 2040 Main Street, 14 th Floor Irvine, CA 92614 Return Fax: (949) 760-9502 Attorney's Docket No.: QCO.107A/QMT060418 | | |
| 7. Total fee (37 CFR 1.21(h)): \$40.00 | 8. Deposit account number: 11-1410 | |
| (X) Enclosed | Please charge this account for any additional fees which may be required, or credit any overpayment to this account. | |
| Statement and signature. | | |
| To the best of my knowledge and belief, the foregoing is a true copy of the original document Pui Tong Ho Name of Person Signing 44,155 | g information is true and correct, and any attached copy Apple Apple Date | |
| Registration No. | about attackments and decree 2 | |
| Total number of pages including cover sheet, attachments and document: 3 | | |
| Documents transmitted via Mail to be recorded with required cover sheet information to: | | |

08/04/2006 HMARZI1 00000075 11497726

40.00 OF

Mail Stop Assignment Recordation Services

Director, U.S. Patent and Trademark Office

P.O. Box 1450

Alexandria, VA 22313-1450

2790790 080206:kpt

01 FC:8021

| Application 1 | No.: |
|---------------|------|
| Filing Date: | |

PATENT
Client Code: QCO.107A/QMT060418
Page 1

ASSIGNMENT

WHEREAS, we, Xiaoming Yan, a Chinese citizen, residing at 865 Blair Ave., #1, Sunnyvale, CA 94087; Brian Arbuckle, a U.S.A citizen, residing at 563 Everett Drive, Danville, CA 94526; Evgeni Gousev, a Russian citizen, residing at 20205 Saratoga Vista Court, Saratoga, CA 95070; and Ming-Hau Tung, a U.S.A. citizen, residing at 1712 48th Ave, San Francisco, CA 94122, have invented certain new and useful improvements in a SELECTIVE ETCHING OF MEMS USING GASEOUS HALIDES AND REACTIVE CO-ETCHANTS for which I caused to be filed an application for Letters Patent in the United States; and I hereby authorize and request the attorneys of Knobbe, Martens, Olson & Bear, LLP, Customer No. 59,747, to insert here in parentheses (Application Number ________, filed _______) the filing date and application number of said application when known;

AND WHEREAS, QUALCOMM MEMS Technologies, Inc. (hereinafter "ASSIGNEE"), a Delaware corporation, with its principal place of business at 5775 Morehouse Drive, San Diego, California 92121, U.S.A, desires to acquire the entire right, title, and interest in and to the said improvements and the said Application.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, I, the said inventor, do hereby acknowledge that I have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, the entire right, title, and interest throughout the world in, to and under the said improvements, and the said application and all provisional application(s) to which said Application claims, or is entitled to claim, priority, and all divisions, renewals and continuations thereof, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof, and all rights of priority under International Conventions and applications for Letters Patent which may hereafter be filed for said improvements in any country or countries foreign to the United States, and all Letters Patent which may be granted for said improvements in any country or countries foreign to the United States and all extensions, renewals and reissues thereof; and I 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 as aforesaid, to issue all Letters Patent for said improvements to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND I DO HEREBY sell, assign, transfer, and convey to the said ASSIGNEE, its successors, legal representatives, and assigns all claims for damages and all remedies arising out of any violation of the rights assigned hereby that may have accrued prior to the date of assignment to the said ASSIGNEE, or may accrue hereafter, including, but not limited to, the right to sue for, collect, and retain damages for past infringements of the said Letters Patent before or after issuance.

AND I HEREBY covenant and agree that I will communicate to the said ASSIGNEE, its successors, legal representatives and assigns; any facts known to me respecting said improvements, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing and reissue applications, make all rightful oaths and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for said improvements in all countries.

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 70 day of July, 2006

Xiaoming Yan

| Application No.: Filing Date: | PATENT Client Code: QCO.107A/QMT060418 Page 2 |
|------------------------------------|--|
| IN TESTIMONY WHEREOF, I hereunto | set my hand and seal this 3; day of July, 2005. |
| IN TESTIMONY WHEREOF, I hereunto | Ø |
| | Evgeni Gousev |
| IN TESTIMONY WHEREOF, I hereunto | set my hand and seal this 28 day of 5019, 2006 |
| | Ming-Han Tung |
| IN TESTIMONY WHEREOF, acknowle, 20 | dged by QUALCOMM MEMS Technologies, Inc. this day of |
| | QUALCOMM MEMS Technologies, Inc. |
| | |
| | Name: |
| | Title: |

2655596_2.DOC 072806

> PATENT REEL: 018151 FRAME: 0940

T Application No.: Client Code: QCO.107A/QMT060418 Filing Date:

ASSIGNMENT

WHEREAS, we, Xiaoming Yan, a Chinese citizen, residing at 865 Blair Ave., #1, Sunnyvale, CA 94087: Brian Arbuckle, a U.S.A citizen, residing at 563 Everett Drive, Danville, CA 94526; Evgeni Gousev, a Russian citizen, residing at 20205 Saratoga Vista Court, Saratoga, CA 95070; and Ming-Hau Tung, a U.S.A. citizen, residing at 1712 48th Ave, San Francisco, CA 94122, have invented certain new and useful improvements in a SELECTIVE ETCHING OF MEMS USING GASEOUS HALIDES AND REACTIVE CO-ETCHANTS for which I caused to be filed an application for Letters Patent in the United States; and I hereby authorize and request the attorneys of Knobbe, Martens, Olson & Bear, LLP, Customer No. 59,747, to insert here in parentheses (Application Number ______, filed _____) the filing date and application number of said application when known;

AND WHEREAS, QUALCOMM MEMS Technologies, Inc. (hereinafter "ASSIGNEE"), a Delaware corporation, with its principal place of business at 5775 Morehouse Drive, San Diego, California 92121, U.S.A, desires to acquire the entire right, title, and interest in and to the said improvements and the said Application.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, I, the said inventor, do hereby acknowledge that I have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, the entire right, title, and interest throughout the world in, to and under the said improvements, and the said application and all provisional application(s) to which said Application claims, or is entitled to claim, priority, and all divisions, renewals and continuations thereof, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof, and all rights of priority under International Conventions and applications for Letters Patent which may hereafter be filed for said improvements in any country or countries foreign to the United States, and all Letters Patent which may be granted for said improvements in any country or countries foreign to the United States and all extensions, renewals and reissues thereof; and I 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 as aforesaid, to issue all Letters Patent for said improvements to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND I DO HEREBY sell, assign, transfer, and convey to the said ASSIGNEE, its successors, legal representatives, and assigns all claims for damages and all remedies arising out of any violation of the rights assigned hereby that may have accrued prior to the date of assignment to the said ASSIGNEE, or may accrue hereafter, including, but not limited to, the right to sue for, collect, and retain damages for past infringements of the said Letters Patent before or after issuance.

AND I HEREBY covenant and agree that I will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to me respecting said improvements, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing and reissue applications, make all rightful oaths and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for said improvements in all countries.

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 79 day of July, 2006

Name:

Title:

QUALCOMM MEMS Technologies, Inc.

2655596_2.DOC 072806

RECORDED: 08/02/2006

PATENT REEL: 018151 FRAME: 0942