Client Code: QCO.066C1

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Name of conveying party(ies): (List using letters	2. Name and address of receiving party(ing):
or numbers for multiple parties)	Name and address of receiving party(ies);
Jeffrey B. Sampseil	Name: QUALCOMM MEMS Technologies, Inc.
Additional name(s) of conveying party(ies)	Street Address: 5775 Morehouse Drive City: San Diego State: CA
attached?	ZIP: 92121
() Yes (X) No	
	Additional name(s) of receiving party(ies) attached?
Nature of conveyance:	() Yes (X) No
(X) Assignment () Security Agreement () Merger () Change of Name	
() Other: Execution Date: (List as in section 1 if multiple signatures) June 15, 2006	US or PCT Application number(s) or US Patent number(s):
	(X) Patent Application No.: 12/345,551 Filing Date: December 29, 2008
	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. 59747	
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.066C1	
7. Total fee (37 CFR 1.21(h)): \$40	8. Deposit account number: 11-1410
(X) Authorized to be charged to deposit account	Please charge this account for any additional fees which may be required, or credit any overpayment to this account.
9. Statement and signature.	
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Gregory A. Hermanson Name of Person Signing	Mesmoston September 16,2009 Date
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53,018 Registration No.	
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> **PATENT REEL: 023244 FRAME: 0103**

Application No.: Unknown

Filing Date: Herewith

KNOB NPB.

PATENT

Client Code: QCO.066A/050946

Page I

ASSIGNMENT

WHEREAS, I, Jeffrey B. Sampsell, a United States citizen, residing at 190 Ryland Street, #4202 San Jose, CA 95110, have invented certain new and useful improvements in a METHOD AND APPARATUS FOR LOW RANGE BIT DEPTH ENHANCEMENT FOR MEMS DISPLAY ARCHITECTURES 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, Marjens, Olson & Bear, LLP, Customer No. 20,995, to insert here in parentheses (Application Number 11/454, 162, filed 6/15/06) 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 coverant 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.

,	_TV4
IN TESTIMONY WHEREOF, I hereunto set my ha	and and seal this / day of June 2006.
	434
	teffrey B. Sampsell
IN TESTIMONY WHEREOF, acknowledged by, 20	QUALCOMM MEMS Technologies, Inc. this day of
	QUALCOMM MEMS Technologies, Inc.
	Name:
2440035:031406	Title:

RECORDED: 09/16/2009