

Form PTO-1595 (Rev. 03-09)  
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## RECORDATION FORM COVER SHEET PATENTS ONLY

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| <b>1. Name of conveying party(ies):</b><br>Tad Kwasniewski (12/20/2003), Haitao Mei (12/17/2003), Shoujun Wang (12/17/2003), Mashkoor Baig (12/17/2003), and<br>Additional name(s) of conveying party(ies) attached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  | <b>2. Name and address of receiving party(ies)</b><br>Name: <u>Altera Corporation</u><br>Internal Address: _____<br>Street Address: _____<br><br>101 Innovation Drive<br>M/S 1405<br><br>City: <u>San Jose</u><br>State: <u>California</u><br>Country: <u>United States of America</u> Zip: <u>95134</u><br>Additional name(s) & address(es) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| <b>3. Nature of conveyance/Execution Date(s):</b><br>Execution Date(s): <u>in parentheses after inventor name</u><br><input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Change of Name<br><input type="checkbox"/> Security Agreement <input type="checkbox"/> Joint Research Agreement<br><input type="checkbox"/> Government Interest Assignment<br><input type="checkbox"/> Executive Order 9424, Confirmatory License<br><input type="checkbox"/> Other _____                    | <b>4. Application or patent number(s):</b><br>A. Patent Application No.(s)<br><u>11/710,588</u><br><br>B. Patent No.(s)<br><br>Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  |
| <b>5. Name and address to whom correspondence concerning document should be mailed:</b><br>Name: <u>Regina Sam</u><br><u>ROPES &amp; GRAY LLP</u><br>Internal Address: <u>Atty. Dkt.: 000174-0266-102</u><br>Street Address: <u>One International Place</u><br><br>City: <u>Boston</u><br>State: <u>MA</u> Zip: <u>02110</u><br>Phone Number: <u>(617) 951-7814</u><br>Fax Number: <u>(617) 951-7050</u><br>Email Address: <u>Regina.Sam@ropesgray.com</u>  | <b>6. Total number of applications and patents involved:</b> <span style="border: 1px solid black; padding: 2px 10px;">1</span><br><br><b>7. Total fee (37 CFR 1.21(h) &amp; 3.41)</b> \$ <u>40.00</u><br><br><input checked="" type="checkbox"/> Authorized to be charged to deposit account<br><input type="checkbox"/> Enclosed<br><input type="checkbox"/> None required (government interest not affecting title)     |
| <b>8. Payment Information</b><br>Deposit Account Number <u>06-1075</u><br>Authorized User Name <u>Regina Sam</u>  |  |
| <b>9. Signature:</b><br><div style="display: flex; justify-content: space-between; align-items: flex-end;"> <div style="width: 60%;"> <u><i>Regina Sam</i></u><br/>           Signature<br/> <u>Regina Sam - L0381</u><br/>           Name of Person Signing         </div> <div style="width: 35%; text-align: right;"> <u>May 14, 2009</u><br/>           Date<br/>           Total number of pages including cover sheet, attachments, and documents: <span style="border: 1px solid black; padding: 2px 10px;">5</span> </div> </div> |  |

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being transmitted by facsimile to the Patent and Trademark Office, facsimile no. (571) 273-0140, on the date shown below.

Dated: 5/14/09

Signature: *Jana Ettienne*

(Jana Ettienne)

| <b>RECORDATION FORM COVER SHEET (PTO-1595)</b><br>(supplemental sheet)  |   |   |   |  |  |
|---|---|---|---|--|--|
| <b>Additional Conveying Party(ies)/Execution Date(s) (1. Continued):</b><br>Bill Bereza (12/17/2003)  |   |   |   |  |  |
| <b>Additional Assignees (2. Continued):</b><br><br>Assignee Name: _____<br>Internal Address: _____<br>Street Address: _____<br><br>City: _____ State: _____ Country: _____ Zip: _____   |   |   |   |  |  |
| <br>Assignee Name: _____<br>Internal Address: _____<br>Street Address: _____<br><br>City: _____ State: _____ Country: _____ Zip: _____  |   |   |   |  |  |
| <br>Assignee Name: _____<br>Internal Address: _____<br>Street Address: _____<br><br>City: _____ State: _____ Country: _____ Zip: _____  |   |   |   |  |  |
| <b>Additional Applications and/or Patents (4. Continued):</b> <table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th style="width: 50%; padding: 5px;">Additional Patent Application Numbers<br/>4A. Continued:</th><th style="width: 50%; padding: 5px;">Additional Patent Numbers<br/>4B. Continued:</th></tr></thead><tbody><tr><td style="height: 150px;"></td><td></td></tr></tbody></table> <div style="text-align: right; margin-top: 10px;">Additional numbers attached? <input type="checkbox"/> Yes <input type="checkbox"/> No</div> |   | Additional Patent Application Numbers<br>4A. Continued: | Additional Patent Numbers<br>4B. Continued: |  |  |
| Additional Patent Application Numbers<br>4A. Continued:   | Additional Patent Numbers<br>4B. Continued: |   |   |  |  |
|   |   |   |   |  |  |

ALT-266  
(A955)

A S S I G N M E N T

WHEREAS we,

- 1) Tad Kwasniewski,
- 2) Haitao Mei,
- 3) Shoujun Wang,
- 4) Mashkoor Baig, and
- 5) Bill Bereza,

residing respectively at:

- 1) 460 Highcroft Avenue, Ottawa, Ontario, Canada K1Z 5J2,
- 2) 118 Beech St., Apt. 305, Ottawa, Ontario, Canada K1S 3K2,
- 3) 218-25 Woodridge Crescent, Nepean, Ontario, Canada K2B 7T4,
- 4) 9, 132 Woodridge Cr., Ottawa, Ontario, Canada K2B 7S9, and
- 5) 6 Lindhurst Cr., Nepean, Ontario, Canada K2G 0T7,

have made an invention in:

MULTITAP FRACTIONAL BAUD PERIOD  
PRE-EMPHASIS FOR DATA TRANSMISSION

and are about to make application for United States Letters Patent therefor, the same being executed by us on even date or dates herewith; and

WHEREAS, ALTERA CORPORATION, a corporation organized and existing under the laws of the State of Delaware and having an office and place of business at 101 Innovation Drive, San Jose, California 95134-1941, is desirous of acquiring the entire interest in said invention, said United States patent application and in any Letters Patent which may issue thereon;

NOW, THEREFORE, be it known that for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we do hereby sell, assign and transfer unto the said ALTERA CORPORATION, its successors, assigns and legal representatives, all right, title and

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interest in and to said invention and any improvements thereon for all countries of the world, and in and to said United States patent application, including any continuations and divisions thereof, and any substitute applications therefor, and including the right to claim priority under the International Convention based on said patent application, and any patent which may issue thereon, and any reissues of the same; and all right, title and interest in and to every patent application filed or to be filed on said invention in any other country, including renewals, revivals, continuations and divisions thereof, and any substitute applications therefor, and any and all patents which may issue thereon, and any reissues and extensions of the same; and we hereby authorize and request competent authorities to grant and issue any and all patents on said invention to the said ALTERA CORPORATION as the assignee of the entire interest therein; and we further agree to execute upon request of the assignee such additional documents, if any, as are necessary and proper to secure patent protection on said invention throughout all countries of the world, and to otherwise give full effect to and perfect the rights of the assignee under this Assignment.

IN TESTIMONY WHEREOF, we have hereunto signed our names on the dates indicated hereinafter.

12/20/03  
Date

T. Kwasniewski  
Tad Kwasniewski

Dec. 17, 2003  
Date

Haitao Mei  
Haitao Mei

- 3 -

Dec 17, 2003  
Date

17-12-2003  
Date

17 Dec /03  
Date

Shoujun Wang  
Shoujun Wang

Mashkoor Baig  
Mashkoor Baig

Bill Bereza  
Bill Bereza

# FAX TRANSMISSION

**DATE:** May 14, 2009

**PTO IDENTIFIER:** Application Number 11/710,588

Patent Number

**Inventor:** Kwasniewski et al.

**MESSAGE TO:** USPTO PTAS System

**FAX NUMBER:** (571) 273-0140

**FROM:** ROPES & GRAY LLP

Regina Sam

**PHONE:** (617) 951-7814

**Attorney Dkt. #:** 000174-0266-102

**PAGES (Including Cover Sheet):** 6

**CONTENTS:** Recordation Form Cover Sheet (2 pages)  
Assignment (3 pages)  
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**ROPES & GRAY LLP**

One International Place, Boston, Massachusetts 02110

**Telephone:** (617) 951-7000 **Facsimile:** (617) 951-7050