

09-11-2006



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To the Director of the U.S. Patent and Trademark Office

103304900

Documents or the new address(es) below.

**1. Name of conveying party(ies)**

Tim Tri Hoang;  
Sergey Shumarayev; and  
Wilson Wong

**2. Name and address of receiving party(ies)**

Name: Altera Corporation

Internal Address: \_\_\_\_\_

Street Address: 101 Innovation Drive

City: San Jose

State: CA

Country: USA Zip: 95134

Additional name(s) & address(es) attached? ☐ Yes ☒ No

**3. Nature of conveyance/Execution Date(s):**

Execution Date(s) 08/24/06; 08/16/06; and 08/23/06

- ☒ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☐ Joint Research Agreement  
☐ Government Interest Assignment  
☐ Executive Order 9424, Confirmatory License  
☐ Other

**4. Application or patent number(s):**

☒ This document is being filed together with a new application

Execution date(s): 08/24/06; 08/16/06; and 08/23/06

A. Patent Application No.(s)

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ NO

**5. Name and address to whom correspondence concerning document should be mailed:**

Name: Fish & Neave IP Group, Ropes & Gray LLP

Internal Address: \_\_\_\_\_

Street Address: 1251 Avenue of the Americas

City: New York

State: NY Zip: 10020

Phone Number: 212.596.9000

Fax Number: 212.596.9090

Email Address: robert.jackson@ropesgray.com

**6. Total number of applications and patents involved: 1**

**7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00**

- ☐ Authorized to be charged by credit card  
☒ Authorized to be charged to deposit account  
☐ Enclosed  
☐ None required (government interest not affecting title)

**8. Payment Information**

a. Credit Card Last 4 Numbers \_\_\_\_\_  
Expiration Date \_\_\_\_\_

06-1075, Order No.  
b. Deposit Account Number 000174-0472-101

Authorized User Name Fish & Neave IP Group

**9. Signature:**

Robert R. Jackson  
Signature

August 31, 2006

Date

Robert R. Jackson (Reg. No. 26,183)

Name Of Person Signing

Total number of pages including cover  
Sheet, attachments, and documents:

3

Documents to be recorded (including cover sheet) should be faxed to (703) 306-5995, or mailed to:  
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PATENT  
REEL: 018264 FRAME: 0060

**ASSIGNMENT**

WHEREAS, we,

- (1) Tim Tri Hoang;
- (2) Sergey Shumarayev; and
- (3) Wilson Wong;

residing, respectively, at

- (1) 5407 Carls Ct., San Jose, CA 95123;
- (2) 2328 Rocky Point Ct., San Leandro, CA 94579; and
- (3) 21 Talbert Ct., San Francisco, CA 94134;

have made an invention entitled:

WIDE OPERATING-FREQUENCY RANGE VOLTAGE CONTROLLED OSCILLATORS

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

WHEREAS, Altera Corporation, a corporation organized and existing under the laws of Delaware and having an office and place of business at 101 Innovation Drive, San Jose, CA 95134, 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 and in consideration of the sum of One Dollar (\$1.00) to us paid, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, we do hereby sell, assign, and transfer unto the said Altera Corporation, its successors, assigns, and legal representatives, all right, title, and interest in and to said invention and any

improvements thereon for all countries of the world, and in and to said application, including any continuations and divisions thereof, and any substitute applications therefor, 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 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 otherwise to 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:

8/24/06

Date

8/16/06

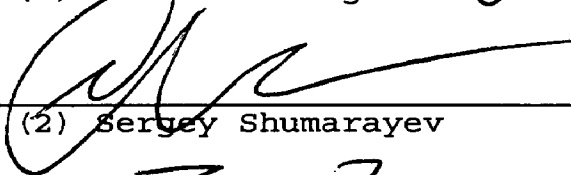
Date

8/23/06

Date



(1) Tim Tri Hoang



(2) Sergey Shumarayev



(3) Wilson Wong