TO: The Commissioner of Patents and Trademarks

Submission Type
- [X] New
- [] Resubmission (Non-Recordation)
- [] Correction of PTO Error
- [] Corrective Document

Conveyance Type
- [X] Assignment
- [] Change of Name
- [] License
- [] Merger
- [] Security Agreement
- [Other: ]

Conveying Party(i(es)

NAME
1. MARK S. WALLACE
2. JOHN W. KETCHUM
3. J. RODNEY WALTON
4. STEVEN J. HOWARD

Receiving Party

Name: QUALCOMM Incorporated
A Delaware Corporation
Address (Street number and name): 5775 Morehouse Drive
Address (City, State, Zip Code): San Diego, California, 92121-1714

EXECUTION DATE
Month, Day, Year (MMDDYYYY)
10/21/2003

Correspondent Name and Address
Name: QUALCOMM Incorporated
Address: 5775 Morehouse Drive
Address: San Diego, California 92121-1714

Telephone Number: (858) 651-4125
Facsimile: (858) 658-2502

Pages (Enter the total number of pages of the attached conveyance document including any attachments)
Total number of pages: 3

Application Number(s) or Patent Number(s)
If this document is being filed together with a new application, the execution date of the application is: 10/23/2003

Patent Application Number(s):
1. 10693169
2. 3. 4.

Patent Cooperation Treaty (PCT)
(Enter only if a U.S. Application Number has not been assigned)
1. PCT/
2. PCT/
3. PCT/
4. PCT/

Number of Properties (Enter the total number of properties involved)
Total number of properties: 1

Fee Amount
Fee Amount for Properties Listed (37 CFR 3.41): $40.00

Method of Payment: [X] Deposit Account
(Enter for deposit by deposit account or if additional fees can be charged to the account. A duplicate of this sheet is enclosed for fee processing)

Deposit Account Number: 17-0026
Authorization to charge additional fees: [Yes] [No]

Statement and Signature
To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Charges to deposit account are authorized, as indicated herein.

Date: 10/23/2003
Name: Thien T. Nguyen, Reg. No. 43,835
(858) 651-6137

Signature: ____________________________

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11/04/2003 STDN1 00000010 170026 10693169
01 FC:8021 40.00 DA

Customer No. 23696

PATENT
REEL: 014644 FRAME: 0662
ASSIGNMENT

TO WHOM IT MAY CONCERN:

For the sum of One Dollar and other valuable consideration to us in hand paid, receipt of which is hereby acknowledged, be it known that we; MARK S. WALLACE, a citizen of the United States of America having a place of residence at 4 MADEL LANE; BEDFORD, MASSACHUSETTS 01730; JOHN W. KETCHUM, a citizen of the United States of America having a place of residence at 37 CANDLEBERRY LANE; HARVARD, MASSACHUSETTS 01451; J. RODNEY WALTON, a citizen of the United States of America having a place of residence at 85 HIGHWOODS LANE; CARLISLE, MASSACHUSETTS 01741; and STEVEN J. HOWARD, a citizen of the United States of America having a place of residence at 75 HERITAGE AVENUE, ASHLAND, MASSACHUSETTS 01721; have sold, assigned and transferred and by these presents do sell, assign, transfer and set over unto QUALCOMM Incorporated, a Delaware corporation, having a place of business at 5775 Morehouse Drive, San Diego, California 92121-1714, its successors, legal representatives, or assigns, the whole right, title and interest in and to a certain invention relating to:

CHANNEL CALIBRATION FOR A TIME DIVISION DUPLEXED COMMUNICATION SYSTEM

by us devised and the application for United States Patent therefor filed HEREWITH in the United States Patent and Trademark Office, including, without limitation, all provisional patent applications, including Serial Nos. 60/421,462 and 60/421,309, both filed October 25, 2002, and all original and reissue patents granted thereof, and all divisions, and continuations thereof, including the subject matter of any and all claims which may be obtained in every such patent, and all foreign rights to said invention, and covenant that we have full right to do so, and agree
that we will communicate to said corporation or its representatives all facts known to us respecting said invention, whenever requested, and testify in any legal proceedings, sign all lawful papers, make all rightful oaths and generally do everything possible to aid said corporation, its successors, assigns and nominees, to obtain and enforce proper patent protection for said invention in all countries.

The Commissioner of Patents and Trademarks is requested to issue the Letters Patent which may be granted for said invention or any part thereof unto said corporation in keeping with this Assignment.

Done at Bedford, Massachusetts this 21st day of October, 2003.

MARK S. WALLACE

Done at Harvard, Massachusetts this 21st day of October, 2003.

JOHN W. KETCHUM

Done at Carlisle, Massachusetts this 21st day of October, 2003.

J. RODNEY WALTON

Done at Ashland, Massachusetts this 21st day of October, 2003.

STEVEN J. HOWARD

[Assignment/Multiple With Application]