

05/28/04

FORM PTO-1619A

expires 06/30/99
omb 0651-0027

06-07-2004



102760063

U.S. Department of Commerce
Patent and Trademark Office

PATENT

17548 U.S. PTO
10/856080



052804

RECORDATION FORM COVER SHEET PATENTS ONLY

TO: The Commissioner of Patents and Trademarks: Please record the attached original document(s) or copy(ies).

Submission Type

New

Resubmission (Non-Recordation)
Document ID#

Correction of PTO Error
Reel # Frame #

Corrective Document
Reel # Frame #

Conveyance Type

Assignment Security Agreement

License Change of Name

Merger Other

U.S. Government
(For Use ONLY by U.S. Government Agencies)

Department File Secret File

Conveying Party(ies)

Mark if additional name of conveying parties attached

Execution Date
Month Day Year

Party 1	Rohit V. Gaikwad
Party 2	
Party 3	
Party 4	
Party 5	
Party 6	

5-21-04

Receiving Party

Mark if additional name of conveying parties attached

Name (line 1)

Name (line 2)

Address

Address

City State/Country Zip Code

If document to be recorded is an assignment and the receiving party is not domiciled in the United States, an appointment of a domestic representative is attached. (Designation must be a separate document from Assignment)

Domestic Representative Name and Address

Enter for the first Receiving Party Only

Name

Address (line 1)

Address (line 2)

Address (line 3)

Address (line 4)

06/02/2004 HDENESS1 00000033 10856080

FOR OFFICE USE ONLY

01 FC:8021

40.00 OP

Mail documents to be recorded with required cover sheet(s) information to:
Commissioner of Patents and Trademarks, Box Assignments, Washington, DC 20231

PATENT
REEL: 015404 FRAME: 0792

Correspondent Name and Address Area Code and Telephone Number (512) 342-0612

Name (line 1) Timothy W. Markison

Name (line 2)

Address P.O. Box 160727

Address Austin TX 78716-0727
City State/Country Zip Code

Pages Enter the total number of pages of the attached conveyance document including any attachments. # 2

Application Number(s) or Patent Number(s) Mark if additional numbers attached
Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).

Patent Application Numbers(s)			Patent Numbers		
10/856080					

If this document is being filed together with a new Patent Application, enter the date the patent application was signed by the first named executing inventor. Month Day Year 5-21-04


Patent Cooperation Treaty (PCT) PCT PCT PCT
Enter PCT application number only if a U.S. Application Number has not been assigned. PCT PCT PCT

Number of Properties Enter the total number of properties involved. # 1

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

Method of Payment: Enclosed Deposit Account

(Enter for payment by deposit account or if additional fees can be charged to the account.)
Deposit Account Number # 50-2126
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.
Timothy W. Markison  5/27/04
Name of Person Signing Signature Date

ASSIGNMENT

WHEREAS, the undersigned inventors, hereinafter called the "Assignors", have invented a new and useful invention entitled:

PAYLOAD BASED CHANNEL ESTIMATION OF A WIRELESS CHANNEL

for which reference a full description is here made in an application for Letters Patent of the United States filed herewith.

WHEREAS, Broadcom Corporation , a USA company having a principal office and place of business at, 16215 Alton Parkway Irvine California 92618-7013 hereinafter called the "Assignee", is desirous of acquiring the entire right, title and interest in and to said invention, the application above identified, and in, to and under Letters Patent which may be obtained for said invention, as hereinafter more fully set forth;

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN, be it known that for valuable legally sufficient consideration, the receipt of which by the Assignors from the Assignee is hereby acknowledged, the Assignors have sold, assigned and transferred, and by these presents do sell, assign and transfer unto the Assignee, its successors and assigns, the entire right, title and interest in and to the invention and the application herein above identified, and all Letters Patents that may issue for the said invention, and all division, reissues, substitutions, continuations, and extensions thereof, to have and to hold for the sole and exclusive use and benefit of the Assignee, its successors and assigns to the full end of the term for which any and all of said Letters Patents for the said invention may issue.

FURTHER, be it known that the Assignors have sold, assigned and transferred, and by these presents do sell, assign and transfer unto the Assignee, its successors and assigns, the entire foreign rights to the invention disclosed in said application, in all countries of the world, including the right to file applications and obtain patents under the terms of the International Convention, and further agrees to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights.

And the Assignors do hereby covenant and agree, for themselves and their legal representatives, that they will assist the Assignee in the prosecution of the application herein identified; in the making and prosecution of any other applications for Letters Patent that the Assignee may elect to make covering the invention herein identified, as herein before set forth, including any application for reissue, application for reexamination, application for foreign patent rights, or any proceeding in the United States Patent and Trademark Office affecting the invention, investing in the Assignee exclusive title in and to all such other applications and Letters Patent; and in the prosecution of any interference which may arise involving said invention, or any application or Letters Patents herein contemplated; that they will promptly execute and deliver to the Assignee any and all additional

