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09-16-2002

Form PTO-1595

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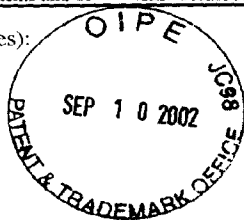


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To the Honorable Commissioner of Patents and Trademarks, please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

- (1) Thomas D. KWON
- (2) Jonathan S. MIN
- (3) Fang LU
- (4) Thomas J. KOLZE



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

Name: **Broadcom Corporation**
 Street Address: **16215 Alton Parkway**
 City: **Irvine** State: **CA** Zip Code: **92618-3616**
 Country: **United States**

Additional name(s) of conveying party(ies) attached? yes no

Additional name(s) & address(es) attached? yes no

3. Nature of Conveyance:

- Assignment Merger
- Security Agreement Change of Name
- Other _____

Execution Dates: (1) **September 6, 2002**
 (2) **September 6, 2002**
 (3) **August 12, 2002**
 (4) **September 9, 2002**

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

A. Patent Application No(s).

10/163,871 (Filed: June 7, 2002)

B. Patent No(s).

Additional numbers attached? yes no

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

Name: **Sterne, Kessler, Goldstein & Fox P.L.L.C.**
 Internal Address: **c/o Albert J. Fasulo, II**
 Attorney Docket No.: **1875.1540001/RES/AJF**
 Street Address: **1100 New York Ave., N.W.**
Suite 600
 City: **Washington** State: **D.C.** Zip Code: **20005-3934**

6. Total number of applications and patents involved: 1

7. Total fee (37 C.F.R. § 3.41).....**\$40.00**

- Enclosed (Check No. 36597)
- Authorized to be charged to Deposit Account

8. Deposit Account Number:

19-0036

(Attach duplicate copy of this page if paying by deposit account)

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9. 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.

Albert J. Fasulo, II
 Name of Person Signing
 Registration No. **43,607**

Signature

September 10, 2002
 Date

Total number of pages including cover sheet, attachments and document 7

Mail documents to be recorded with required cover sheet information to:
 Commissioner of Patents and Trademarks, Box Assignments
 Washington, D.C. 20231

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09/13/2002 BTDM11 00000110 10163871

01 FC:581

40.00 OP

PATENT
REEL: 013276 FRAME: 0500

ASSIGNMENT

In consideration of the sum of One Dollar (\$1.00) or equivalent and other good and valuable consideration paid to each of the undersigned inventor(s): **(1) Thomas D. KWON, (2) Jonathan S. MIN, (3) Fang LU, (4) Thomas J. KOLZE** signed inventor(s) hereby sell(s) and assign(s) to **Broadcom Corporation** (the Assignee) his/her entire right, title and interest, including the right to sue for past infringement and to collect for all past, present and future damages:

check applicable box(es) for the United States of America (as defined in 35 U.S.C. § 100),
 and throughout the world,

(a) in the invention(s) known as **Receiver Having Decisional Feedback Equalizer With Remodulation and Related Methods** for which application(s) for patent in the United States of America has (have) been executed by the undersigned on **(1) 9/6/02**,
(2) 9/6/02, **(3)**, **(4)** (also known as United States Application No. **10/163,871**, filed **June 7, 2002**), in any and all applications thereon, in any and all Letters Patent(s) therefor, and

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(b) in any and all applications that claim the benefit of the patent application listed above in part (a), including continuing applications, reissues, extensions, renewals and reexaminations of the patent application or Letters Patent therefor listed above in part (a), to the full extent of the term or terms for which Letters Patents issue, and

(c) in any and all inventions described in the patent application listed above in part (a), and in any and all forms of intellectual and industrial property protection derivable from such patent application, and that are derivable from any and all continuing applications, reissues, extensions, renewals and reexaminations of such patent application, including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor; and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable;

all such rights, title and interest to be held and enjoyed by the above-named Assignee, its successors, legal representatives and assigns to the same extent as all such rights, title and interest would have been held and enjoyed by the Assignor had this assignment and sale not been made.

The undersigned inventor(s) agree(s) to execute all papers necessary in connection with the application(s) and any continuing (continuation, divisional, or continuation-in-part), reissue, reexamination or corresponding application(s) thereof and also to execute separate assignments in connection with such application(s) as the Assignee may deem necessary or expedient.

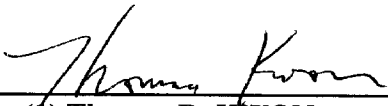
The undersigned inventor(s) agree(s) to execute all papers necessary in connection with any interference or patent enforcement action (judicial or otherwise) related to the application(s) or any continuing (continuation, divisional, or continuation-in-part), reissue or reexamination application(s) thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference or patent enforcement action.

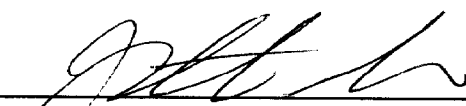
The undersigned inventor(s) hereby represent(s) that he/she has full right to convey the entire interest herein assigned, and that he/she has not executed, and will not execute, any agreement in conflict therewith.

The undersigned inventor(s) hereby grant(s) James D. Bennett, Registration No. 37,550, and David J. Rosmann, Registration No. 43,059, of Broadcom Corporation, 16215 Alton Parkway, Irvine, CA 92618-3616, and Robert Greene Sterne, Esquire, Registration No. 28,912; Edward J. Kessler, Esquire, Registration No. 25,688; Jorge A. Goldstein, Esquire, Registration No. 29,021; David K.S. Cornwell, Esquire, Registration No. 31,944; Robert

W. Esmond, Esquire, Registration No. 32,893; Tracy-Gene G. Durkin, Esquire, Registration No. 32,831; Michele A. Cimbala, Esquire, Registration No. 33,851; Michael B. Ray, Esquire, Registration No. 33,997; Robert E. Sokohl, Esquire, Registration No. 36,013; Eric K. Steffe, Esquire, Registration No. 36,688; Michael Q. Lee, Esquire, Registration No. 35,239; Steven R. Ludwig, Esquire, Registration No. 36,203; John M. Covert, Esquire, Registration No. 38,759; and Linda E. Alcorn, Esquire, Registration No. 39,588; Lawrence B. Bugaisky, Esquire, Registration No. 35,086; Donald J. Featherstone, Esquire, Registration No. 33,876; and Robert C. Millonig, Esquire, Registration No. 34,395, all of STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C., 1100 New York Avenue, N.W., Suite 600, Washington, D.C. 20005-3934, power to insert in this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, executed by the undersigned inventor(s) on the date opposite his/her name.

Date: 9-6-02 Signature of Inventor: 
(4) Thomas D. KWON

Date: 9-6-02 Signature of Inventor: 
(2) Jonathan S. MIN

Date: _____ Signature of Inventor: _____
(3) Fang LU

Date: _____ Signature of Inventor: _____
(4) Thomas J. KOLZE

ASSIGNMENT

In consideration of the sum of One Dollar (\$1.00) or equivalent and other good and valuable consideration paid to each of the undersigned inventor(s): **(1) Thomas D. KWON, (2) Jonathan S. MIN, (3) Fang LU, (4) Thomas J. KOLZE** signed inventor(s) hereby sell(s) and assign(s) to **Broadcom Corporation** (the Assignee) his/her entire right, title and interest, including the right to sue for past infringement and to collect for all past, present and future damages:

check applicable box(es) for the United States of America (as defined in 35 U.S.C. § 100),
 and throughout the world,

(a) in the invention(s) known as **Receiver Having Decisional Feedback Equalizer With Remodulation and Related Methods** for which application(s) for patent in the United States of America has (have) been executed by the undersigned on **(1) _____, (2) _____, (3) 8-12-02, (4) _____** (also known as United States Application No. **10/163,871**, filed **June 7, 2002**), in any and all applications thereon, in any and all Letters Patent(s) therefor, and

(b) in any and all applications that claim the benefit of the patent application listed above in part (a), including continuing applications, reissues, extensions, renewals and reexaminations of the patent application or Letters Patent therefor listed above in part (a), to the full extent of the term or terms for which Letters Patents issue, and

(c) in any and all inventions described in the patent application listed above in part (a), and in any and all forms of intellectual and industrial property protection derivable from such patent application, and that are derivable from any and all continuing applications, reissues, extensions, renewals and reexaminations of such patent application, including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor; and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable;

all such rights, title and interest to be held and enjoyed by the above-named Assignee, its successors, legal representatives and assigns to the same extent as all such rights, title and interest would have been held and enjoyed by the Assignor had this assignment and sale not been made.

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The undersigned inventor(s) hereby represent(s) that he/she has full right to convey the entire interest herein assigned, and that he/she has not executed, and will not execute, any agreement in conflict therewith.

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IN WITNESS WHEREOF, executed by the undersigned inventor(s) on the date opposite his/her name.

Date: _____ Signature of Inventor: _____
(1) Thomas D. KWON

Date: _____ Signature of Inventor: _____
(2) Jonathan S. MIN

Date: 8-12-02 Signature of Inventor: Fang Lu
(3) Fang LU

Date: _____ Signature of Inventor: _____
(4) Thomas J. KOLZE

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 and throughout the world,

(a) in the invention(s) known as Receiver Having Decisional Feedback Equalizer With Remodulation and Related Methods for which application(s) for patent in the United States of America has (have) been executed by the undersigned on (1) [REDACTED], (2) [REDACTED], (3) [REDACTED], (4) 9/9/02 (also known as United States Application No. 10/163,871, filed June 7, 2002), in any and all applications thereon, in any and all Letters Patent(s) therefor, and

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