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10-30-2007

U.S. DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office



ET

To the Director of the U.S. Patent

103457334

documents or the new address(es) below.

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

Additional name(s) of conveying party(ies) attached?  Yes  No

**2. Name and address of receiving party(ies)**  
Name: Broadcom Corporation  
Internal Address: \_\_\_\_\_  
Street Address: 5300 California Avenue  
City: Irvine  
State: California  
Country: U.S.A. Zip: 92617

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

**3. Nature of conveyance/Execution Date(s):**  
Execution Date(s) November 28, 2002

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.  
A. Patent Application No.(s) \_\_\_\_\_  
(to be assigned)

B. Patent No. 06/23/2007 CNGUYEN2 00000014 11976181  
04 FC:0021 40.00

Additional numbers attached?  Yes  No

**5. Name and address to whom correspondence concerning document should be mailed:**  
Name: Sterne, Kessler, Goldstein & Fox P.L.L.C.  
Internal Address: c/o Jeffrey T. Helvey, Esq.  
Street Address: 1100 New York Avenue, N.W.  
City: Washington  
State: D.C. Zip: 20005-3934  
Phone Number: (202) 371-2600  
Fax Number: (202) 371-2540  
Email Address: jhelvey@skgf.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 1005  
Expiration Date 08/2009

b. Deposit Account Number 19-0036  
Authorized User Name SKGF PLLC

**9. Signature:** Jeffrey T. Helvey 10/22/07  
Signature Date

Jeffrey T. Helvey, Reg. No. 44,757  
Name of Person Signing

Total number of pages including cover sheet, attachments, and documents: 4

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:  
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

## 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 inventors: (1) Myles Wakayama, (2) Dana Vincent Laub, (3) Frank Carr, (4) Afshin Mellati, (5) David S. P. Ho, (6) Hsiang Bin Lee, (7) Chun-Ying Chen, (8) James Y. C. Chang, (9) Lawrence M. Burns, (10) Young Joon Shin, (11) Patrick Pai, (12) Iconomos A. Koullas, (13) Ron Lipka, (14) Luke Thomas Steigerwald, (15) Alexandre Kral, the undersigned inventors hereby sell and assign 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 known as Integrated Direct Conversion Satellite Tuner for which application(s) for patent in the United States of America has (have) been executed by the undersigned on (1) \_\_\_\_\_, (2) \_\_\_\_\_, (3) \_\_\_\_\_, (4) \_\_\_\_\_, (5) \_\_\_\_\_, (6) \_\_\_\_\_, (7) \_\_\_\_\_, (8) \_\_\_\_\_, (9) \_\_\_\_\_, (10) \_\_\_\_\_, (11) \_\_\_\_\_, (12) \_\_\_\_\_, (13) \_\_\_\_\_, (14) \_\_\_\_\_, (15) 11/29/2002, (also known as United States Application No. 09/995,695, filed November 29, 2001), 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) 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; Linda E. Alcom, Esquire, Registration No. 39,588; Lawrence B. Bugaisky, Esquire, Registration No. 35,086; Donald J. Featherstone, Esquire, Registration No. 33,876; and Robert C. Millionig, 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, and James D. Bennett, Registration No. 37,550, and David J. Rosmann, Registration No. 43,059, 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: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Myles Wakayama

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Dana Vincent Laub

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Frank Carr

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Afshin Mellati

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
David S. P. Ho

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Hsiang Bin Lee

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Chun-Ying Chen

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
James Y. C. Chang

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Lawrence M. Burns

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Young Joon Shin

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Patrick Pai

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Iconomos A. Koullias

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Ron Lipka

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Luke Thomas Steigerwald

Date: Nov 28<sup>th</sup>, 2002 Signature of Inventor: \_\_\_\_\_  
Alexandre Kral

## 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 inventors: (1) Myles Wakayama, (2) Dana Vincent Leub, (3) Frank Carr, (4) Afshin Mellati, (5) David S. P. Ho, (6) Hsiang Bin Lee, (7) Chun-Ying Chen, (8) James Y. C. Chang, (9) Lawrence M. Burns, (10) Young Joon Shin, (11) Patrick Pai, (12) Iconomos A. Koullias, (13) Ron Lipka, (14) Luke Thomas Steigerwald, the undersigned inventors hereby sell and assign 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:

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 and throughout the world,

(a) in the invention known as Integrated Direct Conversion Satellite Tuner for which application(s) for patent in the United States of America has (have) been executed by the undersigned on (1) 1/16/02, (2) 1-15-02, (3) \_\_\_\_\_, (4) 1/16/2002, (5) 2/6/02, (6) 1/15/2002, (7) 1-15-02, (8) 1/15/2002, (9) 1/16/02, (10) 2/1/02, (11) 2/21/02, (12) 1/21/02, (13) 1/23/02, (14) 1/23/02, (also known as United States Application No. 09/995,695, filed November 29, 2001), in any and all applications thereon, in any and all Letters Patent(s) therefor, and

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4/10/02

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

Date: 1/16/2002 Signature of Inventor:   
Myles Wakayama

Date: 1-15-02 Signature of Inventor:   
Dana Vincent Laub

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Frank Carr

Date: 1/16/2002 Signature of Inventor:   
Afshin Mellati

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
David S. P. Ho

Date: 1/15/2002 Signature of Inventor:   
Hsiang Bin Lee

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Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Dana Vincent Laub

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Frank Carr

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Afshin Mollati

Date: 6 Feb 2002 Signature of Inventor: \_\_\_\_\_  
David S. P. Ho

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Hsiang Bin Lee

Date: 1/15/2002 Signature of Inventor: 

Chun-Ying Chen

Date: 1/15/2002 Signature of Inventor: 

James Y. C. Chang

Date: 1/16/02 Signature of Inventor: 

Lawrence M. Burns

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_

Young Joon Shin

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_

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Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_

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Luke Thomas Steigerwald



Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Chun-Ying Chen

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
James Y. C. Chang

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Lawrence M. Burns

Date: 2/1/02 Signature of Inventor:   
Young Joon Shin

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
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Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
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Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Lawrence M. Burns

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Young Joon Shin

Date: 2/28/02 Signature of Inventor:   
Patrick Pai

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Iconomos A. Koullias

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
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Date: 1/31/02 Signature of Inventor:   
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Dana Vincent Laub

Date: 9/20/02 Signature of Inventor: \_\_\_\_\_  
Frank Carr

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Afshin Mellati

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
David S. P. Ho

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Hsiang Bin Lee