11-02-2001



Form PTO-1595 U.S. Department of Commerce			
From PTO-1595 U.S. Department of Commerce Rev. 03/01) 101891898 Patent and Trademark Office PMB No. 0651-0027 (exp. 5/31/2002) PATENTS UNLY			
OMB No. 0651-0027 (exp. 5/31/2002) PALENT	S ONLY		
To the Honorable Commissioner of Patents and Trademarks. Please record the attached original documents or copy thereof.			
1. Name of conveying party(ies):	2. Name and address of receiving party(ies):		
1) Aaron W. BUCHWALD 5) Xicheng JIANG 2) Myles WAKAYAMA 6) Hui WANG	Name: Broadcom Corporation		
3) Michael LE 7) Howard A. BAUMER	Street Address: 16215 Alton Parkway		
4) Josephus VAN ENGELEN 8) Avanindra MADISETTI	City: Irvine State: CA Zip Code: 92618-3616		
Additional name(s) of conveying party(ies) attached? ☐ yes ⊠ no	Country: United States		
3. Nature of Conveyance:	Additional name(s) & address(es) attached? □ yes ☑ no		
■ Assignment	,,,,		
☐ Security Agreement ☐ Change of Name ☐ Other ☐ Other ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	PE		
Execution Dates:			
1) October 4 2001 5) August 6 2001 007 3	0 2001		
2) August 8, 2001 6) August 6, 2001 7) August 7, 2001 7) August 8, 2001	J. J		
2) August 8, 2001 3) August 7, 2001 4) August 14, 2001 5) August 6, 2001 7) August 8, 2001 8) August 8, 2001 4) August 14, 2001 8) August 8, 2001	DEMARK		
4. Application number(s) or patent number(s):	1		
A. Patent Application No(s).	B. Patent No(s).		
09/844,296			
Additional numbers attached? □ yes 🖾 no			
Name and address of party to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved:1_		
Name: Sterne, Kessler, Goldstein & Fox P.L.L.C.	7. Total fee (37 C.F.R. § 3.41)\$40.00		
Internal Address: c/o Albert J. Fasulo, II	Enclosed (Check No. 33015)		
Attorney Docket No.: 1875.0560002	☐ Authorized to be charged to Deposit Account		
Street Address: 1100 New York Ave., N.W. Suite 600	8. Deposit Account Number:		
	19-0036		
City: Washington State: D.C. Zip Code: 20005-3934	(Attach duplicate copy of this page if paying by deposit account)		
DO NOT USE THIS SPACE			
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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 October 30, 2001			
Name of Person Signing Signature Date Registration No. 43,607			
20000109 09844296 Tota number of pages including cover sheet, attachments and document 4			
40.00 (Pail 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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PATENT REEL: 012290 FRAME: 0686

ASSIGNMENT

Docket Number: 1875.0560002

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) Aaron W. BUCHWALD, (2) Myles WAKAYAMA, (3) Michael LE,(4) Jurgen VAN ENGELEN, (5) Xicheng JIANG, (6) Hui WANG, (7) Howard A. BAUMER and (8) Avanindra MADISETTI, the undersigned inventors hereby sells and assigns 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) of for the United States of America (as defined in 35 U.S.C. § 100). and throughout the world,

- (a) in the invention known as Timing Recovery and Phase Tracking System and Method for which application(s) for patent in the United States of America has (have) been executed by the which application(s) for patent if the officer of the state of the interest of the undersigned on (1) 04 07 01 (2) $\frac{3}{8}$ (2) $\frac{3}{8}$ (3) $\frac{8}{16}$ (4) $\frac{8}{16}$ (4) $\frac{8}{16}$ (5) $\frac{8}{6}$ (6) $\frac{8}{6}$ (6) $\frac{8}{6}$ (7) $\frac{8}{8}$ (200) $\frac{1}{8}$ (also known as United States Application No. 09/844,296, filed April 30, 2001), 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.

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.

PATENT REEL: 012290 FRAME: 0687

Appl. No. 09/844,296 Docket Number: 1875.0560002

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; and Linda E. Alcorn, Esquire, Registration No. 39,588; 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 inventors on the date opposite his/her name.

Date:	01 OCT 2001	Signature of Inventor:	Acros Bushwall
			(1) Aaron W. BUCHWALD
Date:	8 AUH 2001	Signature of Inventor:	(2) Myles WAKAYAMA
			• /
Date:	8/7/01	Signature of Inventor:	Michael LE
			ME)
Date:		Signature of Inventor:	(4) Jurgen VAN ENGELEN
Date:	3/6/01	Signature of Inventor:	The fine
	7		(5) Xicheng JIANG
Date:	8/6/01	Signature of Inventor:	Menzi
·		-	(6) Hui WANG
Date:	8/8/200/ Signature o	Signature of Inventor:	Mhrom Sta
			(7) Howard A. BAUMER
Date:	8/8/2011	Signature of Inventor:	Ananury (8) Avanindra MADISETTI
		•	(8) Avanindra MADISETTI

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Page 2 of 2

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Appl. No. 09/844,296 Docket Number: 1875.0560002

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IN WITNESS WHEREOF, executed by the undersigned inventors on the date opposite his/her name.

Date:	01 OCT 2001	Signature of Inventor:	(1) Aaron W. BUCHWALD
Date:	8 AUG 2001	Signature of Inventor:	Myles H Wefeep
Date:	8/7/01	Signature of Inventor:	Michael LE
	8/14/01		(4) Jurgon VAN ENGELEN
Date:	2/6/01	Signature of Inventor:	(5) Xicheng JIANG
Date:	8/6/01	Signature of Inventor:	(6) Hui WANG
Date:	8/8/2001	Signature of Inventor:	Mhrondda.
Date:	8/8/2011	Signature of Inventors	(7) Howard A. BAUMER Avaning

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RECORDED: 10/30/2001

Page 2 of 2

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