

## PATENT ASSIGNMENT

Electronic Version v1.1  
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT				
NATURE OF CONVEYANCE:	ASSIGNMENT				
CONVEYING PARTY DATA					
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>John Jeff Dull</td> <td>09/24/2012</td> </tr> </tbody> </table>		Name	Execution Date	John Jeff Dull	09/24/2012
Name	Execution Date				
John Jeff Dull	09/24/2012				
RECEIVING PARTY DATA					
Name:	Broadcom Corporation				
Street Address:	5300 California Avenue				
City:	Irvine				
State/Country:	CALIFORNIA				
Postal Code:	92617				
PROPERTY NUMBERS Total: 1					
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13249793</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13249793
Property Type	Number				
Application Number:	13249793				
CORRESPONDENCE DATA					
Fax Number:					
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>					
Email:	usassignments@brinkshofer.com, mmarsh@brinkshofer.com				
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ATTORNEY DOCKET NUMBER:	14528.00011				
NAME OF SUBMITTER:	Lawrence M. Chen				
Total Attachments: 4 source=14528-11-ClarifyingAssignment(Executed)#page1.tif source=14528-11-ClarifyingAssignment(Executed)#page2.tif source=14528-11-ClarifyingAssignment(Executed)#page3.tif source=14528-11-ClarifyingAssignment(Executed)#page4.tif					

CH \$40.00 13249793

## ASSIGNMENT

THIS ASSIGNMENT, by John Jeff Dull ("Assignor"), witnesseth:

WHEREAS, Assignor has made the invention(s) described in the United States patent application assigned the attorney docket number noted above, titled:

### EXTENDED WIDTH ENTRIES FOR HASH TABLES

filed on September 30, 2011 and assigned Serial No. 13/249,793; and

WHEREAS, Assignor previously signed an Assignment for this invention on 26-Sept-2011, which gave his name as "Jeff Dull" and was signed "John J Dull";

WHEREAS, for the purposes of clarification, the Assignor has signed this Assignment in which his name is given as John Jeff Dull;

WHEREAS, Broadcom Corporation, a corporation formed under the laws of California, whose mailing address is 5300 California Avenue, Irvine, CA 92617 (the "Assignee"), desires to acquire the entire right, title and interest in and to the inventions, the applications for Letters Patent, all corresponding patent applications, and in and to any Letters Patent or Patents obtained therefore or thereon in the United States or in any other country;

NOW, THEREFORE, for One Dollar (\$1.00) and other good, bargained-for, valuable and legally sufficient consideration for Assignor, the receipt of which is hereby acknowledged by the Assignor, Assignor has sold, assigned, transferred and set over, and as demonstrated by this Assignment and the 26-Sept-2011 Assignment, does sell, assign, transfer and set over unto Assignee: (1) the entire right, title and interest in and to the above-noted inventions, application(s) for Letters Patent, and any and all Letters Patent or Patents in the United States of America and all foreign countries which may be granted therefor or thereon, and in and to any and all divisions, continuations, continuations-in-part of any such application, provisional applications, and non-provisional applications that claim the benefit of the above-noted application(s), and reissues, reexaminations, renewals and extensions of the Letters Patent or Patents, as well as utility model applications, design applications, and all other forms of intellectual property protection based on or taking the benefit of the above-noted application(s); (2) the full right to claim for any such applications all benefits and priority rights under any applicable convention, treaty or legislation; and (3) the right of Assignor to sue and obtain relief, including damages, profits and an injunction; for any infringement occurring before or after issuance of the Letters Patent or Patents, the same to be held and enjoyed for the sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for which Letters Patent or Patents may be granted, as fully and entirely as the same would have been held and enjoyed by the Assignor had this Assignment not been made.

For the above-recited consideration, Assignor hereby covenants, warrants and agrees that, at the time of execution and delivery of this Assignment, (s)he is a lawful owner of the entire right, title and interest in and to the inventions and the applications for Letters Patent above-

mentioned, and that the same are unencumbered and that the Assignor has good and full right and lawful authority to sell and convey the same in the manner herein set forth.


For the above-recited consideration, Assignor hereby covenants and agrees to execute and deliver to Assignee, its successors, legal representatives or assigns, all papers and documents that may be required to carry out the terms of this Assignment, and take all lawful oaths, provide testimony, and do all lawful acts necessary or required to be done to reasonably assist Assignee, its successors, legal representatives or assigns in any interference, litigation or other proceeding in any country concerning or in connection with any inventions, patent applications, Letters Patent or Patents assigned hereunder; or for the prosecution, procurement, maintenance, enforcement and defense of Letters Patent or Patents for the inventions and patent applications, or to carry out the terms of this Assignment, or vest in the Assignee, its successors and assigns, exclusive title in and to all inventions, patent applications, Letters Patent or Patents assigned hereunder, without further compensation from Assignee, its successors, legal representatives or assigns, except for reasonable costs and expenses of Assignor incident to such assistance and approved in writing by Assignee, its successors, legal representatives or assigns before any such costs or expenses are incurred.

Assignor grants Assignee a limited power of attorney to execute, or have executed, for or on behalf of Assignor, whatever papers are required to file or prosecute patent applications and obtain U.S. and foreign patent rights for the invention(s) assigned herein, with the understanding and agreement that the exercise of this limited power of attorney by Assignee or its attorneys or representatives does not give Assignor any rights with respect to anything assigned hereunder, nor establishes any attorney-client relationship between Assignor and Assignee or between Assignor and any attorney working on behalf of Assignee. Assignor also agrees that there is no actual or implied attorney-client relationship between Assignor and any attorney working on behalf of Assignee, its affiliates, subsidiaries or parent companies, by virtue of the preparation and prosecution of any U.S. or foreign applications for patents hereunder, any employment or consulting relationship between that Assignor and Assignee or any other company, or by virtue of this Assignment or any term thereof. Assignor hereby authorizes and requests the attorneys for Assignee to enter the patent application serial number and filing date information into this Assignment document, when that information is known.

Assignor hereby authorizes and requests the Commissioner of Patents to issue the Letters Patent or Patents of the United States to Broadcom Corporation as the Assignee of the inventions, patent applications, the Letters Patent or Patents to be issued thereon for the sole use of Broadcom Corporation, its successors and assigns in accordance with the terms of this Assignment

IN TESTIMONY WHEREOF, Assignor has executed this Assignment.

9/24/12  
Date

  
\_\_\_\_\_  
John Jeff Dull

## ASSIGNMENT

THIS ASSIGNMENT, by Brandon Smith, residing at 15 Grove St., Los Gatos, California 95030, Jeff Dull, residing at 1823 Harris Avenue, San Jose, California 95124, and Vamsi Tatapudi, residing at 2391 Cresthaven St., Milpitas, California 95035 (the "Assignors"), witnesseth:

WHEREAS, Assignors have made the invention(s) described in the United States patent application under the attorney docket number noted above, entitled **EXTENDED WIDTH ENTRIES FOR HASH TABLES**, filed on 30-SEPT-2011 and assigned Serial No. 13/249,793; and

WHEREAS, Broadcom Corporation, a corporation formed under the laws of California, whose mailing address is 5300 California Avenue, Irvine, CA 92617 (the "Assignee"), desires to acquire the entire right, title and interest in and to said inventions, said applications for Letters Patent, all corresponding patent applications, and in and to any Letters Patent or Patents obtained therefore or thereon in the United States or in any other country;

NOW, THEREFORE, for One Dollar (\$1.00) and other good, bargained-for, valuable and legally sufficient consideration for each Assignor, the receipt of which is hereby acknowledged by all Assignors, said Assignors have sold, assigned, transferred and set over, and as demonstrated by this Assignment do sell, assign, transfer and set over unto said Assignee: (1) the entire right, title and interest in and to the above-noted inventions, application(s) for Letters Patent, and any and all Letters Patent or Patents in the United States of America and all foreign countries which may be granted therefor or thereon, and in and to any and all divisions, continuations, continuations-in-part of any such application, provisional applications, and non-provisional applications that claim the benefit of the above-noted application(s), and reissues, reexaminations, renewals and extensions of said Letters Patent or Patents, as well as utility model applications, design applications, and all other forms of intellectual property protection based on or taking the benefit of the above-noted application(s); (2) the full right to claim for any such applications all benefits and priority rights under any applicable convention, treaty or legislation; and (3) the right of Assignors to sue and obtain relief, including damages, profits and an injunction, for any infringement occurring before or after issuance of said Letters Patent or Patents, the same to be held and enjoyed for the sole and exclusive use and benefit of the Assignee, its successors and assigns, to the full end of the term or terms for which Letters Patent or Patents may be granted, as fully and entirely as the same would have been held and enjoyed by the Assignors had this Assignment not been made.

For the above-recited consideration, each of said Assignors hereby covenants, warrants and agrees that, at the time of execution and delivery of this Assignment, (s)he is a lawful owner of the entire right, title and interest in and to said inventions and the applications for Letters Patent above-mentioned, and that the same are unencumbered and that the Assignor has good and full right and lawful authority to sell and convey the same in the manner herein set forth.

For the above-recited consideration, each of said Assignors hereby covenants and agrees to execute and deliver to the Assignee, its successors, legal representatives or assigns, all papers and documents that may be required to carry out the terms of this Assignment, and take all lawful oaths, provide testimony, and do all lawful acts necessary or required to be done to reasonably assist said Assignee, its successors, legal representatives or assigns in any interference, litigation or other proceeding in any country concerning or in connection with any inventions, patent applications, Letters Patent or Patents assigned hereunder; or for the prosecution, procurement, maintenance, enforcement and defense of Letters Patent or Patents

for said inventions and patent applications, or to carry out the terms of this Assignment, or vest in the Assignee, its successors and assigns, exclusive title in and to all inventions, patent applications, Letters Patent or Patents assigned hereunder, without further compensation from said Assignee, its successors, legal representatives or assigns, except for reasonable costs and expenses of the Assignor incident to such assistance and approved in writing by said Assignee, its successors, legal representatives or assigns before any such costs or expenses are incurred.

Each Assignor grants Assignee a limited power of attorney to execute, or have executed, for or on behalf of that Assignor, whatever papers are required to file or prosecute patent applications and obtain U.S. and foreign patent rights for the invention(s) assigned herein, with the understanding and agreement that the exercise of this limited power of attorney by Assignee or its attorneys or representatives gives no Assignor any rights with respect to anything assigned hereunder, nor establishes any attorney-client relationship between any Assignor and Assignee or between any Assignor and any attorney working on behalf of Assignee. Each Assignor also agrees that there is no actual or implied attorney-client relationship between Assignor and any attorney working on behalf of Assignee, its affiliates, subsidiaries or parent companies, by virtue of the preparation and prosecution of any U.S. or foreign applications for patents hereunder, any employment or consulting relationship between that Assignor and Assignee or any other company, or by virtue of this Assignment or any term thereof. Each Assignor hereby authorizes and requests the attorneys for Assignee to enter the patent application serial number and filing date information into this Assignment document, when that information is known.

Assignors hereby authorize and request the Commissioner of Patents to issue said Letters Patent or Patents of the United States to Broadcom Corporation as the Assignee of said inventions, patent applications, the Letters Patent or Patents to be issued thereon for the sole use of Broadcom Corporation, its successors and assigns in accordance with the terms of this Assignment

IN TESTIMONY WHEREOF, the Assignors have executed this Assignment.

<u>9/26/2011</u> Date	<u>Brandon E Smith</u> Brandon Smith
<u>9/26/2011</u> Date	<u>John J Dull</u> Jeff Dull
<u>9/26/2011</u> Date	<u>Vamsi Tatapudi</u> Vamsi Tatapudi