

## PATENT ASSIGNMENT

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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>Gregg A. Bouchard</td> <td>08/28/2012</td> </tr> <tr> <td>Rajan Goyal</td> <td>08/17/2012</td> </tr> <tr> <td>Jeffrey A. Pangborn</td> <td>08/17/2012</td> </tr> <tr> <td>Najeeb I. Ansari</td> <td>08/17/2012</td> </tr> </tbody> </table>		Name	Execution Date	Gregg A. Bouchard	08/28/2012	Rajan Goyal	08/17/2012	Jeffrey A. Pangborn	08/17/2012	Najeeb I. Ansari	08/17/2012
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RECEIVING PARTY DATA											
<table border="1"> <tr> <td>Name:</td> <td>Cavium, Inc.</td> </tr> <tr> <td>Street Address:</td> <td>2315 N. First Street</td> </tr> <tr> <td>City:</td> <td>San Jose</td> </tr> <tr> <td>State/Country:</td> <td>CALIFORNIA</td> </tr> <tr> <td>Postal Code:</td> <td>95131</td> </tr> </table>		Name:	Cavium, Inc.	Street Address:	2315 N. First Street	City:	San Jose	State/Country:	CALIFORNIA	Postal Code:	95131
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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>13565736</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13565736						
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CORRESPONDENCE DATA											
<p>Fax Number: 9783410136  <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Phone: 978-341-0036        Email: beverly.weinberger@hbsr.com</p> <p>Correspondent Name: Timothy J. Meagher        Address Line 1: 530 Virginia Road, P.O. Box 9133        Address Line 2: Hamilton, Brook, Smith &amp; Reynolds, P.C.        Address Line 4: Concord, MASSACHUSETTS 01742-9133</p>											
ATTORNEY DOCKET NUMBER:	3795.1084-001										
NAME OF SUBMITTER:	Beverly Weinberger										
Total Attachments: 10											

CH \$40.00 13565736

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JointASSIGNMENT

WHEREAS, we, **Gregg A. Bouchard, Rajan Goyal, Jeffrey A. Pangborn and Najeeb I. Ansari**, have invented a certain improvement in **On-Chip Memory (OCM) Physical Bank Parallelism** described in an application for Patent,

- ☐ the specification of which is about to be filed in the United States Patent Office *(use for utility (37 CFR § 1.53(b)) and design filings only)*;
- ☐ is about to be filed in the United States Patent Office as a Provisional Application;
- ☒ the specification of which is United States Application No. **13/565,736**, filed **August 2, 2012**;
- ☐ the specification of which is a Patent Cooperation Treaty Application, International Application No. [   ], filed [   ], which designates the United States of America [and is assigned United States Application No. [   ]];
- ☐ which was patented under United States Patent No. [   ].

WHEREAS, **Cavium, Inc.** (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the **State of Delaware**, and having a usual place of business at **2315 N. First Street, San Jose, California 95131** desires to confirm its interest therein in accordance with agreements duly entered into with us;

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, the entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to said invention as described in said application, together with the entire right, title and interest in and to said application and such Letters Patent as may issue on said invention; said invention, application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; we hereby convey all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. We hereby acknowledge that this assignment, being of the entire right, title and interest in and to said invention, carries with it the right in ASSIGNEE to apply for any and all related provisional and nonprovisional, international and national phase applications, including any and all substitution, reissue, divisional, continuation, and continuation-in-part applications, and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein; we hereby expressly authorize the filing of an International Patent Application under the

Patent Cooperation Treaty which corresponds to and claims the priority of the above-identified application;

AND, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns and legal representatives, but at its or their expense and charges, including the execution of applications for patents in foreign countries, and the execution of any future applications including substitution, reissue, divisional or continuation, continuation-in-part applications, and all related provisional and nonprovisional, international and national phase applications, and preliminary or other statements and the giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

AND, we do hereby authorize and request each Patent Office and the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said invention to said ASSIGNEE, its successors, assigns, and legal representatives.

IN TESTIMONY WHEREOF, we have hereunto set our hands and affixed our seals the date set forth below.

Inventor's Signature: \_\_\_\_\_

Gregg A. Bouchard

State/Commonwealth

of \_\_\_\_\_

County of \_\_\_\_\_

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me, the undersigned notary public, personally appeared Gregg A. Bouchard,

☐ personally known to me, or

☐ proved to me through satisfactory evidence of identification, which was

\_\_\_\_\_

to be the person whose name was signed on the foregoing instrument in my presence, and acknowledged that he/she signed the foregoing instrument as his/her free act and deed.

(SEAL)

Notary Public \_\_\_\_\_

\_\_\_\_\_ (print name)

My Commission expires \_\_\_\_/\_\_\_\_/\_\_\_\_

Inventor's Signature: \_\_\_\_\_

Rajan Goyal

State/Commonwealth

of CALIFORNIACounty of SANTA CLARA

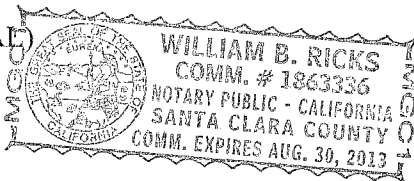
On this 17<sup>TH</sup> day of AUGUST 2012, before me, the undersigned notary public, personally appeared Rajan Goyal,

- ☐ personally known to me, or
- ☒ proved to me through satisfactory evidence of identification, which was

CALIFORNIA DRIVERS LICENSE

to be the person whose name was signed on the foregoing instrument in my presence, and acknowledged that he/she signed the foregoing instrument as his/her free act and deed.

(SEAL)



Notary Public

William B. Ricks (print name)My Commission expires 8/30/2013

Inventor's Signature: \_\_\_\_\_

Jeffrey A. Pangborn

State/Commonwealth

of CALIFORNIACounty of SANTA CLARA

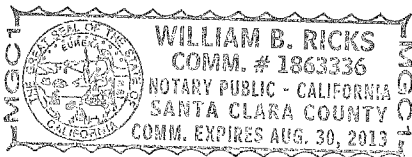
On this 17<sup>TH</sup> day of AUGUST 2012, before me, the undersigned notary public, personally appeared Jeffrey A. Pangborn,

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- ☒ proved to me through satisfactory evidence of identification, which was

CALIFORNIA DRIVERS LICENSE

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(SEAL)



Notary Public

William B. Ricks (print name)My Commission expires 8/30/2013

Inventor's Signature: \_\_\_\_\_

Najeeb I. Ansari  
Najeeb I. Ansari

State/Commonwealth

of CALIFORNIA

County of SANTA CLARA

On this 17<sup>TH</sup> day of AUGUST 2012, before me, the undersigned notary public, personally appeared Najeeb I. Ansari,

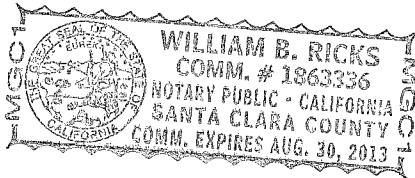
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(SEAL)



Notary Public William B. Ricks

William B. Ricks (print name)

My Commission expires 8/30/2013

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NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, the entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to said invention as described in said application, together with the entire right, title and interest in and to said application and such Letters Patent as may issue on said invention; said invention, application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; we hereby convey all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. We hereby acknowledge that this assignment, being of the entire right, title and interest in and to said invention, carries with it the right in ASSIGNEE to apply for any and all related provisional and nonprovisional, international and national phase applications, including any and all substitution, reissue, divisional, continuation, and continuation-in-part applications, and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein; we hereby expressly authorize the filing of an International Patent Application under the



Patent Cooperation Treaty which corresponds to and claims the priority of the above-identified application;

AND, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns and legal representatives, but at its or their expense and charges, including the execution of applications for patents in foreign countries, and the execution of any future applications including substitution, reissue, divisional or continuation, continuation-in-part applications, and all related provisional and nonprovisional, international and national phase applications, and preliminary or other statements and the giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

AND, we do hereby authorize and request each Patent Office and the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said invention to said ASSIGNEE, its successors, assigns, and legal representatives.

IN TESTIMONY WHEREOF, we have hereunto set our hands and affixed our seals the date set forth below.

Inventor's Signature: Gregg A. Bouchard  
Gregg A. Bouchard

State/Commonwealth  
of Texas  
County of Williamson

On this 28 day of August 2012, before me, the undersigned notary public, personally appeared Gregg A. Bouchard,

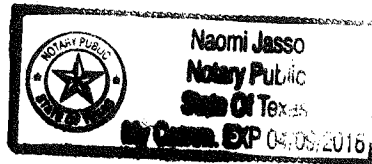
☐ personally known to me, or

☒ proved to me through satisfactory evidence of identification, which was

Texas driver's license

to be the person whose name was signed on the foregoing instrument in my presence, and acknowledged that he/she signed the foregoing instrument as his/her free act and deed.

(SEAL)



Notary Public Naomi Jasso  
Naomi Jasso (print name)

My Commission expires 04/09/2016

Inventor's Signature: \_\_\_\_\_

Rajan Goyal

State/Commonwealth

of \_\_\_\_\_

County of \_\_\_\_\_

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me, the undersigned notary public, personally appeared Rajan Goyal,

☐ personally known to me, or

☐ proved to me through satisfactory evidence of identification, which was

\_\_\_\_\_

to be the person whose name was signed on the foregoing instrument in my presence, and acknowledged that he/she signed the foregoing instrument as his/her free act and deed.

(SEAL)

Notary Public \_\_\_\_\_

\_\_\_\_\_  
(print name)

My Commission expires \_\_\_\_/\_\_\_\_/\_\_\_\_

Inventor's Signature: \_\_\_\_\_

Jeffrey A. Pangborn

State/Commonwealth

of \_\_\_\_\_

County of \_\_\_\_\_

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me, the undersigned notary public, personally appeared Jeffrey A. Pangborn,

☐ personally known to me, or

☐ proved to me through satisfactory evidence of identification, which was

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(SEAL)

Notary Public \_\_\_\_\_

\_\_\_\_\_  
(print name)

My Commission expires \_\_\_\_/\_\_\_\_/\_\_\_\_

Inventor's Signature: \_\_\_\_\_

Najeeb I. Ansari

State/Commonwealth

of \_\_\_\_\_

County of \_\_\_\_\_

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me, the undersigned notary public, personally appeared Najeeb I. Ansari,

☐ personally known to me, or

☐ proved to me through satisfactory evidence of identification, which was

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(SEAL)

Notary Public \_\_\_\_\_

\_\_\_\_\_  
(print name)

My Commission expires \_\_\_\_/\_\_\_\_/\_\_\_\_