

## 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>Brian S. Doyle</td> <td>09/25/2013</td> </tr> <tr> <td>Uday Shah</td> <td>09/25/2013</td> </tr> <tr> <td>Roza Kotlyar</td> <td>09/25/2013</td> </tr> <tr> <td>Charles C. Kuo</td> <td>09/25/2013</td> </tr> </tbody> </table>		Name	Execution Date	Brian S. Doyle	09/25/2013	Uday Shah	09/25/2013	Roza Kotlyar	09/25/2013	Charles C. Kuo	09/25/2013
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RECEIVING PARTY DATA											
<table border="1"> <tr> <td>Name:</td> <td>Intel Corporation</td> </tr> <tr> <td>Street Address:</td> <td>2200 Mission College Boulevard</td> </tr> <tr> <td>City:</td> <td>Santa Clara</td> </tr> <tr> <td>State/Country:</td> <td>CALIFORNIA</td> </tr> <tr> <td>Postal Code:</td> <td>95054</td> </tr> </table>		Name:	Intel Corporation	Street Address:	2200 Mission College Boulevard	City:	Santa Clara	State/Country:	CALIFORNIA	Postal Code:	95054
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PROPERTY NUMBERS Total: 1											
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CORRESPONDENCE DATA											
<p>Fax Number: 4087208383  <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Phone: 408 720-8300</p> <p>Email: Leslie_Rogan@bstz.com</p> <p>Correspondent Name: Mission/BSTZ BLAKELY SOKOLOFF TAYLOR &amp; Z</p> <p>Address Line 1: 1279 Oakmead Parkway</p> <p>Address Line 4: Sunnyvale, CALIFORNIA 94085-4040</p>											
ATTORNEY DOCKET NUMBER:	42P55566										
NAME OF SUBMITTER:	Jeremy A. Schweigert										
Signature:	/Jeremy A. Schweigert/										

Date:

09/27/2013

Total Attachments: 2

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## **ASSIGNMENT**

In consideration of good and valuable consideration, the receipt of which is hereby acknowledged, we, the undersigned inventor(s):

**Brian S. Doyle, Uday Shah, Roza Kotlyar, and Charles C. Kuo**

hereby sell, assign, and transfer to:

**Intel Corporation**

a corporation of Delaware, having a principal place of business at 2200 Mission College Boulevard, Santa Clara, California, 95054 USA ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all other countries, in and to any and all inventions and improvements that are disclosed in the application for the patent entitled:

### **VERTICAL TRANSISTOR DEVICES FOR EMBEDDED MEMORY AND LOGIC TECHNOLOGIES**

(I hereby authorize and request my attorney, associated with customer number 45209, to insert on the designated lines below, the filing date and application number of said application when known.)

which was filed on September 27, 2013 as  
United States Application Number 14/039,696 and  
COUNTRY or International Office

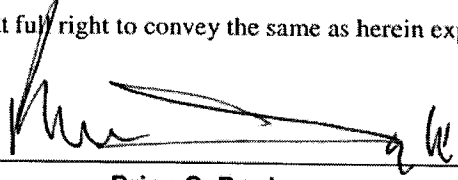
which has been executed by the undersigned prior hereto or concurrently herewith on the date(s) indicated below,

and in and to said application and all Additional Applications, and all other patent applications that have been or shall be filed in the United States and all other countries and international filing offices on any of said inventions and improvements; and in and to all original and reissued patents that have been or shall be issued in the United States and all other countries and international filing offices on said inventions and improvements; and in and to all rights of priority resulting from the filing of said applications; as used herein "Additional Applications" includes but is not limited to design, utility, utility model, divisional, continuing, continuation-in-part, substitute, renewal, reissue, and national phase applications on said inventions and improvements;

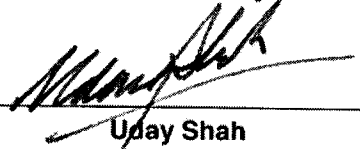
and agree that said Assignee may apply for and receive a patent or patents for said inventions and improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all Additional Applications, and all other patent applications on any and all said inventions and improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and legal representatives all facts known to the undersigned relating to said inventions and improvements and

the history thereof; and generally assist said Assignee, its successors, assigns, or legal representatives in securing and maintaining proper patent protection for said inventions and improvements and for vesting title to said inventions and improvements, and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns, and legal representatives; and

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

  
\_\_\_\_\_  
Brian S. Doyle

9/25/13  
\_\_\_\_\_  
Date signed

  
\_\_\_\_\_  
Uday Shah

9/25/2013  
\_\_\_\_\_  
Date signed

  
\_\_\_\_\_  
Roza Kotlyar

9/25/2013  
\_\_\_\_\_  
Date signed

  
\_\_\_\_\_  
Charles C. Kuo

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