

## 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>Takeshi HIOKA</td> <td>11/29/2012</td> </tr> <tr> <td>Yoshihisa IWATA</td> <td>11/29/2012</td> </tr> </tbody> </table>		Name	Execution Date	Takeshi HIOKA	11/29/2012	Yoshihisa IWATA	11/29/2012
Name	Execution Date						
Takeshi HIOKA	11/29/2012						
Yoshihisa IWATA	11/29/2012						
RECEIVING PARTY DATA							
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City:	MINATO-KU, TOKYO						
State/Country:	JAPAN						
Postal Code:	1058001						
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>13607529</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13607529		
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Application Number:	13607529						
CORRESPONDENCE DATA							
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NAME OF SUBMITTER:	Junichi Koike						
Total Attachments: 2 source=G063055#page1.tif source=G063055#page2.tif							

CH \$40.00 13607529

## ASSIGNMENT FOR APPLICATION FOR PATENT

WHEREAS:

Names and Addresses of Inventors:

1)	<b>Takeshi HIOKA</b> Kanagawa-ken, Japan	2)	<b>Yoshihisa IWATA</b> Kanagawa-ken, Japan
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(hereinafter referred to as Assignors), have invented a certain invention entitled:

**SEMICONDUCTOR DEVICE**

for which an application for Letters Patent in the United States:

- is executed concurrently herewith.  
 was executed on \_\_\_\_\_.  
 was filed on Sep/07/2012 under Serial No 13/607,529.

WHEREAS, **Kabushiki Kaisha Toshiba**, a Japanese corporation, having a business address at **1-1, Shibaura 1-chome, Minato-ku, Tokyo, Japan** (hereinafter collectively referred to as Assignee), are desirous of acquiring the entire right, title and interest in and to said application (hereinafter referred to as Application), and the invention disclosed therein (hereinafter referred to as Invention), and in and to all embodiments of the Invention, heretofore conceived, made or discovered by said Assignors, and in and to any and all patents, inventor's certificates and other forms of protection (hereinafter referred to as Patents) thereon granted in any and all countries and groups of countries.

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Assignors to have been received in full from said Assignee:

1. Said Assignors hereby sell, assign, transfer and convey to Assignee the full and exclusive right, title and interest (a) in and to said Application and said Invention; (b) in and to all rights to apply for patents on said Invention in any and all countries pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all Applications filed and any and all Patents granted on said Invention in any and all countries and groups of countries, including each and every Application filed and each and every Patent granted on any application which is a conventional, division, substitution, continuation or continuation-in-part of said Application; and (d) in and to each and every reissue or extension of any of said Patents.

2. Said Assignors hereby covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest to said Invention herein conveyed in any and all countries and groups of countries. Such cooperation by said Assignors shall include prompt production of pertinent facts and documents, giving testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting substitute, conventional, divisional, continuing, continuation-in-part or additional applications covering said Invention; (d) for filing and prosecuting applications for reissuance of any of said Patents; (e) for interference or other priority proceedings involving said Invention; and (f) for legal proceedings involving said Invention and any application therefore and any Patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Assignors in providing such cooperation shall be paid for by said Assignee.

3. The term and covenants of this agreement shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Assignors, their respective heirs, legal representatives and assigns.

4. Said Assignors hereby warrant and represent that they have not entered and will not enter into any assignment, contract or understanding in conflict herewith.

IN WITNESS WHEREOF, the said Assignors have executed and delivered this instrument to said Assignee on the dates indicated below.

1) Nov. 29, 2012 (DATE) Takeshi Hioka  
Takeshi HIOKA

2) Nov. 29, 2012 (DATE) Yoshihisa Iwata  
Yoshihisa IWATA