

PATENT ASSIGNMENT COVER SHEET

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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>MUNAF RAHIMO</td> <td>11/15/2013</td> </tr> <tr> <td>ARNOST KOPTA</td> <td>11/15/2013</td> </tr> <tr> <td>THOMAS CLAUSEN</td> <td>11/04/2013</td> </tr> <tr> <td>MAXI ANDENNA</td> <td>11/15/2013</td> </tr> </tbody> </table>		Name	Execution Date	MUNAF RAHIMO	11/15/2013	ARNOST KOPTA	11/15/2013	THOMAS CLAUSEN	11/04/2013	MAXI ANDENNA	11/15/2013
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<table border="1"> <tr> <td>Name:</td> <td>ABB TECHNOLOGY AG</td> </tr> <tr> <td>Street Address:</td> <td>AFFOLTERNSTRASSE 44</td> </tr> <tr> <td>City:</td> <td>ZURICH</td> </tr> <tr> <td>State/Country:</td> <td>SWITZERLAND</td> </tr> <tr> <td>Postal Code:</td> <td>8050</td> </tr> </table>		Name:	ABB TECHNOLOGY AG	Street Address:	AFFOLTERNSTRASSE 44	City:	ZURICH	State/Country:	SWITZERLAND	Postal Code:	8050
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CORRESPONDENCE DATA											
<p>Fax Number: (703)836-2021</p> <p>Email: MAYRA.CASTILLO@BIPC.COM</p> <p><i>Correspondence will be sent via US Mail when the email attempt is unsuccessful.</i></p> <p>Correspondent Name: BUCHANAN INGERSOLL & ROONEY PC</p> <p>Address Line 1: 1737 KING STREET</p> <p>Address Line 2: SUITE 500</p> <p>Address Line 4: ALEXANDRIA, VIRGINIA 22314</p>											
ATTORNEY DOCKET NUMBER:	1004501-001339										
NAME OF SUBMITTER:	MAYRA E. CASTILLO										
Signature:	/Mayra E. Castillo/										

Date:	02/01/2014
	This document serves as an Oath/Declaration (37 CFR 1.63).
Total Attachments: 4 source=1004501-001339-Combined Declaration and Assignment#page1.tif source=1004501-001339-Combined Declaration and Assignment#page2.tif source=1004501-001339-Combined Declaration and Assignment#page3.tif source=1004501-001339-Combined Declaration and Assignment#page4.tif	

COMBINED DECLARATION AND ASSIGNMENT (JOINT)

As one of the below named inventors, I hereby declare that this Declaration is directed to:

- (1) ☒ U.S. application number 14/046,156 filed on October 4, 2013, entitled BIPOLAR PUNCH-THROUGH SEMICONDUCTOR DEVICE AND METHOD FOR MANUFACTURING SUCH A SEMICONDUCTOR DEVICE; or
- (2) ☐ the attached application entitled BIPOLAR PUNCH-THROUGH SEMICONDUCTOR DEVICE AND METHOD FOR MANUFACTURING SUCH A SEMICONDUCTOR DEVICE.

DECLARATION

As one of the below named inventors, I further declare that:

The above-identified application was made or authorized to be made by me.

I believe that I am an original joint inventor of a claimed invention in the application.

I have reviewed and understand the contents of the above-identified application, including the claims.

I acknowledge the duty to disclose to the U.S. Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

ASSIGNMENT

THIS ASSIGNMENT, by the undersigned inventors (hereinafter referred to as "the Assignors"), respectively, witnesseth:

WHEREAS, the Assignors have invented certain new and useful improvements set forth in the application for Letters Patent of the United States identified above;

WHEREAS, ABB Technology AG, a corporation duly organized under and pursuant to the laws of Switzerland and having a principal place of business at Affolternstrasse 44, 8050 Zürich, Switzerland (hereinafter referred to as "the Assignee"), is desirous of acquiring the entire right, title, and interest in and to said inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications, including provisional applications for Letters Patent of the United States or other countries claiming priority to said application, and in and to any Letters Patent or Patents, United States or foreign, to be obtained therefor and thereon.

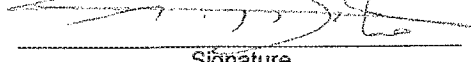
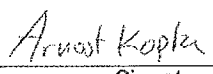
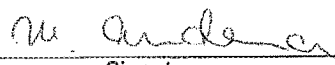
NOW, THEREFORE, for good and sufficient consideration, the receipt of which is hereby acknowledged, the Assignors have sold, assigned, transferred, and set over, and by these presents does sell, assign, transfer, and set over, unto the Assignee, its successors, legal representatives, and assigns the entire right, title, and interest in and to the above-mentioned inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications for Letters Patent of the United States or other

countries claiming priority to said applications, and any and all Letters Patent or Patents of the United States of America and all foreign countries that may be granted therefor and thereon, and in and to any and all applications claiming priority to said applications, divisions, continuations, and continuations-in-part of said applications, and reissues and extensions of said Letters Patent or Patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by the Assignee, for its own use and behoof and the use and behoof of its successors, legal representatives, 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 sale and assignment not been made;

AND for the same consideration, the Assignors hereby covenant and agree to and with the Assignee, its successors, legal representatives, and assigns, that, at the time of execution and delivery of these presents, the Assignors are the sole and lawful owners of the entire right, title, and interest in and to the inventions set forth in said applications and said applications, including provisional applications, above-mentioned, and that the same are unencumbered, and that the Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth;

AND for the same consideration, the Assignors hereby covenant and agree to and with the Assignee, its successors, legal representatives, and assigns that the Assignors will, whenever counsel of the Assignee, or the counsel of its successors, legal representatives, and assigns, shall advise that any proceeding in connection with said inventions or said applications for Letters Patent or Patents, or any proceeding in connection with Letters Patent or Patents for said inventions in any country, including interference proceedings, is lawful and desirable, or that any application claiming priority to said application, division, continuation, or continuation-in-part of any applications for Letters Patent or Patents, or any reissue or extension of any Letters Patent or Patents to be obtained thereon, is lawful and desirable, sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement, and defense of Letters Patent or Patents for said inventions, without charge to the Assignee, its successors, legal representatives, and assigns, but at the cost and expense of the Assignee, its successors, legal representatives, and assigns;

AND the Assignors hereby request the Commissioner of Patents to issue any and all said Letters Patent of the United States to the Assignee as the Assignee of said inventions, the Letters Patent to be issued for the sole use and behoof of the Assignee, its successors, legal representatives, and assigns.

<u>15 Nov 2013</u> Date	<u>Munaf RAHIMO</u> Name	<u></u> Signature
<u>15 Nov 2013</u> Date	<u>Arnost KOPTA</u> Name	<u></u> Signature
<u> </u> Date	<u>Thomas CLAUSEN</u> Name	<u> </u> Signature
<u>15 Nov 2013</u> Date	<u>Maxi ANDENNA</u> Name	<u></u> Signature

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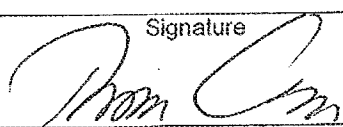
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AND for the same consideration, the Assignors hereby covenant and agree to and with the Assignee, its successors, legal representatives, and assigns that the Assignors will, whenever counsel of the Assignee, or the counsel of its successors, legal representatives, and assigns, shall advise that any proceeding in connection with said inventions or said applications for Letters Patent or Patents, or any proceeding in connection with Letters Patent or Patents for said inventions in any country, including interference proceedings, is lawful and desirable, or that any application claiming priority to said application, division, continuation, or continuation-in-part of any applications for Letters Patent or Patents, or any reissue or extension of any Letters Patent or Patents to be obtained thereon, is lawful and desirable, sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement, and defense of Letters Patent or Patents for said inventions, without charge to the Assignee, its successors, legal representatives, and assigns, but at the cost and expense of the Assignee, its successors, legal representatives, and assigns;

AND the Assignors hereby request the Commissioner of Patents to issue any and all said Letters Patent of the United States to the Assignee as the Assignee of said inventions, the Letters Patent to be issued for the sole use and behoof of the Assignee, its successors, legal representatives, and assigns.

_____	Munaf RAHIMO	_____
Date	Name	Signature
_____	Arnost KOPTA	_____
Date	Name	Signature
04 Nov 2013	Thomas CLAUSEN	
Date	Name	Signature
_____	Maxi ANDENNA	_____
Date	Name	Signature