503364431 06/24/2015

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3411053

SUBMISSION TYPE:		NEW ASSIGNMENT		
NATURE OF CONVEYANCE:		ASSIGNMENT		
CONVEYING PARTY D	ΑΤΑ			
		Name	Execution Date	
MUNAF RAHIMO			06/02/2015	
MARTIN ARNOLD			06/11/2015	
JAN VOBECKY			06/11/2015	
UMAMAHESWARA VEN	/ULAPATI		06/02/2015	
RECEIVING PARTY DA	TA			
Name:	1	CHNOLOGY AG		
Street Address:	AFFOLT	ERNSTRASSE 44		
City:	ZURICH	ZURICH		
State/Country:	SWITZE	SWITZERLAND		
Postal Code:	CH-8050)		
PROPERTY NUMBERS Property Type		Number		
	Total: 1			
		Number 4748774		
Property Type Application Number:	1			
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Property Type Application Number: CORRESPONDENCE D Fax Number: <i>Correspondence will b</i> <i>using a fax number, if p</i> Phone: Email: Correspondent Name: Address Line 1: Address Line 4:	ATA (7 e sent to a provided; 7 b B P A	4748774 703)836-7419 the e-mail address first; if that is unsuccess if that is unsuccessful, it will be sent via U 038366620 everly.caraway@bipc.com BUCHANAN INGERSOLL & ROONEY P.C. P.O. BOX 1404 LEXANDRIA, VIRGINIA 22313-1404		
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Property Type Application Number: CORRESPONDENCE D Fax Number: Correspondence will b using a fax number, if Phone: Email: Correspondent Name: Address Line 1: Address Line 4: ATTORNEY DOCKET NUMARE OF SUBMITTER:	ATA (7 e sent to a provided; 7 b B P A	4748774 703)836-7419 the e-mail address first; if that is unsuccess if that is unsuccessful, it will be sent via U 038366620 everly.caraway@bipc.com BUCHANAN INGERSOLL & ROONEY P.C. P.O. BOX 1404 LEXANDRIA, VIRGINIA 22313-1404 1004501-001437 BEVERLY A. CARAWAY		

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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 or PCT application number ______filed on ______, entitled REVERSE-CONDUCTING POWER SEMICONDUCTOR DEVICE; or

(2) the attached application entitled REVERSE-CONDUCTING POWER 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, <u>ABB TECHNOLOGY AG</u>, a corporation duly organized under and pursuant to the laws of <u>SWITZERLAND</u> and having a principal place of business at <u>Affolternstrasse 44, CH-8050 Zürich, SWITZERLAND</u> (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

PATENT REEL: 035895 FRAME: 0661 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 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 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.

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- 2. Juni 2015			
	Munaf RAHIMO		
Date	Name	Signature	
	Martin ARNOLD		
Date	Name	Signature	
	Jan VOBECKY		
Date	Name	Signature	
~ 2. Juni 2015		5	
Date	Umamaheswara VEMULAPATI Name	<u>V. Auround fredky</u> Signature	
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Page 2 of 2

COMBINED DECLARATION AND ASSIGNMENT (JOINT)

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(1) U.S. application number or PCT application number ______filed on ______, entitled REVERSE-CONDUCTING POWER SEMICONDUCTOR DEVICE; or

(2) the attached application entitled REVERSE-CONDUCTING POWER SEMICONDUCTOR DEVICE.

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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.

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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, <u>ABB TECHNOLOGY AG</u>, a corporation duly organized under and pursuant to the laws of <u>SWITZERLAND</u> and having a principal place of business at <u>Affolternstrasse 44, CH-8050 Zürich, SWITZERLAND</u> (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

PATENT REEL: 035895 FRAME: 0663 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 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, 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
1 1. Juni 2015		
· · · · · · · · · · · · · · · · · · ·	Martin ARNOLD	
Date	Name	Signature
1 î Juni 2015	Jan VOBECKY	AL V
Date	Name	/ Signature
	Umamaheswara VEMULAPATI	\$. ¥
Date	Name	Signature

Page 2 of 2

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RECORDED: 06/24/2015