

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT3092449

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
KRISHNA KUMAR BANKA	09/29/2014
PRANTIK SARKAR	09/29/2014
HARALD DEVOS	09/29/2014
PETER NIDAY	10/06/2014
JOHN ROBERT KENNETH LEFEBVRE II	10/06/2014
ARBIND KUMAR	10/03/2014
ATUL DUBEY	09/29/2014
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	KEYSIGHT TECHNOLOGIES, INC.
<b>Street Address:</b>	P. O. BOX 52050
<b>City:</b>	MINNEAPOLIS
<b>State/Country:</b>	MINNESOTA
<b>Postal Code:</b>	55402
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	14531598
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(925)401-1731
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
<b>Phone:</b>	510-931-7710
<b>Email:</b>	keysightdocketing@cpaglobal.com
<b>Correspondent Name:</b>	KEYSIGHT TECHNOLOGIES, INC.
<b>Address Line 1:</b>	P. O. BOX 52050
<b>Address Line 4:</b>	MINNEAPOLIS, MINNESOTA 55402
<b>ATTORNEY DOCKET NUMBER:</b>	20140254-01
<b>NAME OF SUBMITTER:</b>	CALVIN B. WARD
<b>SIGNATURE:</b>	/Calvin B. Ward/
<b>DATE SIGNED:</b>	11/03/2014
<b>Total Attachments: 10</b>	

PATENT

source=file\_pkg\_assign#page1.tif  
source=file\_pkg\_assign#page2.tif  
source=file\_pkg\_assign#page3.tif  
source=file\_pkg\_assign#page4.tif  
source=file\_pkg\_assign#page5.tif  
source=file\_pkg\_assign#page6.tif  
source=file\_pkg\_assign#page7.tif  
source=file\_pkg\_assign#page8.tif  
source=file\_pkg\_assign#page9.tif  
source=file\_pkg\_assign#page10.tif

KEYSIGHT TECHNOLOGIES, INC.  
Legal Department  
Intellectual Property Administration  
900 South Taft Avenue  
Loveland, Colorado 80537

Attorney Docket No. 20140254-01

#### ASSIGNMENT OF PATENT APPLICATION

I/We, the undersigned (each) have agreed and hereby agree to assign to KEYSIGHT TECHNOLOGIES, INC., a Delaware corporation having its principal place of business in Santa Rosa, California, (hereinafter KEYSIGHT), in furtherance of my/our obligations to KEYSIGHT, and do hereby assign and transfer to KEYSIGHT, its successors and assigns, the entire right, title and interest, including the right of priority in, to and under an application for Letters Patent of the United States entitled: **Polymorphic Circuit Simulation System**

Filing date: 11/03/2014

Serial No.: 14/531,598

and the invention(s) and improvement(s) set forth therein, and any and all continuations, continuations-in-part (CIP's), divisionals, and renewals of and substitutes for said application for said Letters Patent, and any and all Letters Patent of the United States and of countries foreign thereto which may be granted thereon or therefor; and any reissues, or reexaminations, or extensions of said Letters Patent.

I/we additionally authorize KEYSIGHT to file applications in my/our name for Letters Patent in any country, to be held and enjoyed by KEYSIGHT, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by me/us had this assignment, and transfer not been made,

AND I/we hereby covenant that I/we have full right to convey the entire interest herein assigned, and that I/we have not executed and will not execute any agreement in conflict herewith, and I/we further covenant and agree that I/we will, each time a request is made, and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said invention(s) or improvement(s), said application and said Letters Patent, to KEYSIGHT, its successors, assigns, nominees or legal representatives, and I/we agree to communicate to KEYSIGHT, or to its nominee, all known facts respecting said invention(s) or improvement(s), said application and said Letters Patent, to testify in any legal proceedings, to sign all lawful papers, to execute all disclaimers and divisionals, continuations, CIP's, reissue and foreign applications, to make all rightful oaths and declarations, and generally to do everything possible to aid KEYSIGHT, its successors, assigns, nominees and legal representatives to obtain and enforce, for its or their own benefit, proper patent protection for said invention(s) or improvement(s) in any and all countries provided the expenses which may be incurred by me/us in lending such cooperation and assistance are paid by KEYSIGHT;

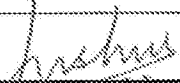

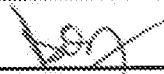
AND I/we hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue patents on applications as aforesaid, to issue to KEYSIGHT, as assignee of the entire right, title and interest, any and all Letters Patent for said invention(s) or improvement(s), including any and all Letters Patent of the United States which may be issued and granted on or as a result if the application aforesaid, in accordance with the terms of this assignment.

KEYSIGHT TECHNOLOGIES, INC.  
 Legal Department  
 Intellectual Property Administration  
 900 South Taft Avenue  
 Loveland, Colorado 80537

Attorney Docket No. 20140254-01

I/we further authorize and direct KEYSIGHT attorneys to insert the serial number and filing date of said application now identified by the attorney docket number and title set forth above as soon as the same shall have been made known to them by the United States Patent and Trademark Office.

**ASSIGNMENT OF PATENT APPLICATION (con't)**

 Inventor's Signature Inventor's Name Krishna Kumar Banka	Date Assignment Signed <u>09/29/2014</u> Date Application Signed _____
 Inventor's Signature Inventor's Name Prantik Sarkar	Date Assignment Signed <u>09/29/2014</u> Date Application Signed _____
_____ Inventor's Signature Inventor's Name Harald Devos	Date Assignment Signed _____ Date Application Signed _____
_____ Inventor's Signature Inventor's Name Peter Niday	Date Assignment Signed _____ Date Application Signed _____
_____ Inventor's Signature Inventor's Name Rob Lefebvre	Date Assignment Signed _____ Date Application Signed _____
_____ Inventor's Signature Inventor's Name Arbind Kumar	Date Assignment Signed _____ Date Application Signed _____
 Inventor's Signature Inventor's Name Atul Dubey	Date Assignment Signed _____ Date Application Signed <u>09/29/2014</u>

KEYSIGHT TECHNOLOGIES, INC.  
Legal Department  
Intellectual Property Administration  
900 South Taft Avenue  
Loveland, Colorado 80537

Attorney Docket No. 20140254-01

**ASSIGNMENT OF PATENT APPLICATION**

I/We, the undersigned (each) have agreed and hereby agree to assign to KEYSIGHT TECHNOLOGIES, INC., a Delaware corporation having its principal place of business in Santa Rosa, California, (hereinafter KEYSIGHT), in furtherance of my/our obligations to KEYSIGHT, and do hereby assign and transfer to KEYSIGHT, its successors and assigns, the entire right, title and interest, including the right of priority in, to and under an application for Letters Patent of the United States entitled: **Polymorphic Circuit Simulation System**

Filing date: 11/03/2014

Serial No.: 14/531,598

and the invention(s) and improvement(s) set forth therein, and any and all continuations, continuations-in-part (CIP's), divisionals, and renewals of and substitutes for said application for said Letters Patent, and any and all Letters Patent of the United States and of countries foreign thereto which may be granted thereon or therefor; and any reissues, or reexaminations, or extensions of said Letters Patent.

I/we additionally authorize KEYSIGHT to file applications in my/our name for Letters Patent in any country, to be held and enjoyed by KEYSIGHT, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by me/us had this assignment, and transfer not been made,


AND I/we hereby covenant that I/we have full right to convey the entire interest herein assigned, and that I/we have not executed and will not execute any agreement in conflict herewith, and I/we further covenant and agree that I/we will, each time a request is made, and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said invention(s) or improvement(s), said application and said Letters Patent, to KEYSIGHT, its successors, assigns, nominees or legal representatives, and I/we agree to communicate to KEYSIGHT, or to its nominee, all known facts respecting said invention(s) or improvement(s), said application and said Letters Patent, to testify in any legal proceedings, to sign all lawful papers, to execute all disclaimers and divisionals, continuations, CIP's, reissue and foreign applications, to make all rightful oaths and declarations, and generally to do everything possible to aid KEYSIGHT, its successors, assigns, nominees and legal representatives to obtain and enforce, for its or their own benefit, proper patent protection for said invention(s) or improvement(s) in any and all countries provided the expenses which may be incurred by me/us in lending such cooperation and assistance are paid by KEYSIGHT;

AND I/we hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue patents on applications as aforesaid, to issue to KEYSIGHT, as assignee of the entire right, title and interest, any and all Letters Patent for said invention(s) or improvement(s), including any and all Letters Patent of the United States which may be issued and granted on or as a result if the application aforesaid, in accordance with the terms of this assignment.

900 South Taft Avenue  
Loveland, Colorado 80537

I/we further authorize and direct KEYSIGHT attorneys to insert the serial number and filing date of said application now identified by the attorney docket number and title set forth above as soon as the same shall have been made known to them by the United States Patent and Trademark Office.

**ASSIGNMENT OF PATENT APPLICATION (con't)**

<hr/> <b>Inventor's Signature</b> <b>Inventor's Name</b> Krishna Kumar Banka	<b>Date Assignment Signed</b> _____ <b>Date Application Signed</b> _____
<hr/> <b>Inventor's Signature</b> <b>Inventor's Name</b> Prantik Sarkar	<b>Date Assignment Signed</b> _____ <b>Date Application Signed</b> _____
 <hr/> <b>Inventor's Signature</b> <b>Inventor's Name</b> Harald Devos	<b>Date Assignment Signed</b> <u>29 September 2014</u> <b>Date Application Signed</b> _____
<hr/> <b>Inventor's Signature</b> <b>Inventor's Name</b> Peter Niday	<b>Date Assignment Signed</b> _____ <b>Date Application Signed</b> _____
<hr/> <b>Inventor's Signature</b> <b>Inventor's Name</b> Rob Lefebvre	<b>Date Assignment Signed</b> _____ <b>Date Application Signed</b> _____
<hr/> <b>Inventor's Signature</b> <b>Inventor's Name</b> Arbind Kumar	<b>Date Assignment Signed</b> _____ <b>Date Application Signed</b> _____
<hr/> <b>Inventor's Signature</b> <b>Inventor's Name</b> Atul Dubey	<b>Date Assignment Signed</b> _____ <b>Date Application Signed</b> _____

KEYSIGHT TECHNOLOGIES, INC.  
Legal Department  
Intellectual Property Administration  
900 South Taft Avenue  
Loveland, Colorado 80537

Attorney Docket No. 20140254-01

#### ASSIGNMENT OF PATENT APPLICATION

I/We, the undersigned (each) have agreed and hereby agree to assign to KEYSIGHT TECHNOLOGIES, INC., a Delaware corporation having its principal place of business in Santa Rosa, California, (hereinafter KEYSIGHT), in furtherance of my/our obligations to KEYSIGHT, and do hereby assign and transfer to KEYSIGHT, its successors and assigns, the entire right, title and interest, including the right of priority in, to and under an application for Letters Patent of the United States entitled: **Polymorphic Circuit Simulation System**

Filing date: 11/03/2014

Serial No.: 14/531,598

and the invention(s) and improvement(s) set forth therein, and any and all continuations, continuations-in-part (CIP's), divisionals, and renewals of and substitutes for said application for said Letters Patent, and any and all Letters Patent of the United States and of countries foreign thereto which may be granted thereon or therefor; and any reissues, or reexaminations, or extensions of said Letters Patent.

I/we additionally authorize KEYSIGHT to file applications in my/our name for Letters Patent in any country, to be held and enjoyed by KEYSIGHT, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by me/us had this assignment, and transfer not been made,

AND I/we hereby covenant that I/we have full right to convey the entire interest herein assigned, and that I/we have not executed and will not execute any agreement in conflict herewith, and I/we further covenant and agree that I/we will, each time a request is made, and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said invention(s) or improvement(s), said application and said Letters Patent, to KEYSIGHT, its successors, assigns, nominees or legal representatives, and I/we agree to communicate to KEYSIGHT, or to its nominee, all known facts respecting said invention(s) or improvement(s), said application and said Letters Patent, to testify in any legal proceedings, to sign all lawful papers, to execute all disclaimers and divisionals, continuations, CIP's, reissue and foreign applications, to make all rightful oaths and declarations, and generally to do everything possible to aid KEYSIGHT, its successors, assigns, nominees and legal representatives to obtain and enforce, for its or their own benefit, proper patent protection for said invention(s) or improvement(s) in any and all countries provided the expenses which may be incurred by me/us in lending such cooperation and assistance are paid by KEYSIGHT;

AND I/we hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue patents on applications as aforesaid, to issue to KEYSIGHT, as assignee of the entire right, title and interest, any and all Letters Patent for said invention(s) or improvement(s), including any and all Letters Patent of the United States which may be issued and granted on or as a result if the application aforesaid, in accordance with the terms of this assignment.





KEYSIGHT TECHNOLOGIES, INC.  
Legal Department  
Intellectual Property Administration  
900 South Taft Avenue  
Loveland, Colorado 80537

Attorney Docket No. 20140254-01

### ASSIGNMENT OF PATENT APPLICATION

I/We, the undersigned (each) have agreed and hereby agree to assign to KEYSIGHT TECHNOLOGIES, INC., a Delaware corporation having its principal place of business in Santa Rosa, California, (hereinafter KEYSIGHT), in furtherance of my/our obligations to KEYSIGHT, and do hereby assign and transfer to KEYSIGHT, its successors and assigns, the entire right, title and interest, including the right of priority in, to and under an application for Letters Patent of the United States entitled: **Polymorphic Circuit Simulation System**

Filing date: 11/03/2014

Serial No.: 14/531,598

and the invention(s) and improvement(s) set forth therein, and any and all continuations, continuations-in-part (CIP's), divisionals, and renewals of and substitutes for said application for said Letters Patent, and any and all Letters Patent of the United States and of countries foreign thereto which may be granted thereon or therefor; and any reissues, or reexaminations, or extensions of said Letters Patent.

I/we additionally authorize KEYSIGHT to file applications in my/our name for Letters Patent in any country, to be held and enjoyed by KEYSIGHT, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by me/us had this assignment, and transfer not been made,

AND I/we hereby covenant that I/we have full right to convey the entire interest herein assigned, and that I/we have not executed and will not execute any agreement in conflict herewith, and I/we further covenant and agree that I/we will, each time a request is made, and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said invention(s) or improvement(s), said application and said Letters Patent, to KEYSIGHT, its successors, assigns, nominees or legal representatives, and I/we agree to communicate to KEYSIGHT, or to its nominee, all known facts respecting said invention(s) or improvement(s), said application and said Letters Patent, to testify in any legal proceedings, to sign all lawful papers, to execute all disclaimers and divisionals, continuations, CIP's, reissue and foreign applications, to make all rightful oaths and declarations, and generally to do everything possible to aid KEYSIGHT, its successors, assigns, nominees and legal representatives to obtain and enforce, for its or their own benefit, proper patent protection for said invention(s) or improvement(s) in any and all countries provided the expenses which may be incurred by me/us in lending such cooperation and assistance are paid by KEYSIGHT;

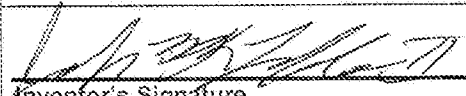
AND I/we hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue patents on applications as aforesaid, to issue to KEYSIGHT, as assignee of the entire right, title and interest, any and all Letters Patent for said invention(s) or improvement(s), including any and all Letters Patent of the United States which may be issued and granted on or as a result if the application aforesaid, in accordance with the terms of this assignment.

KEYSIGHT TECHNOLOGIES, INC.  
 Legal Department  
 Intellectual Property Administration  
 900 South Taft Avenue  
 Loveland, Colorado 80537

Attorney Docket No. 20140254-01

I/we further authorize and direct KEYSIGHT attorneys to insert the serial number and filing date of said application now identified by the attorney docket number and title set forth above as soon as the same shall have been made known to them by the United States Patent and Trademark Office.

**ASSIGNMENT OF PATENT APPLICATION (con't)**

	Date Assignment Signed _____
Inventor's Signature Inventor's Name Krishna Kumar Banka	Date Application Signed _____
	Date Assignment Signed _____
Inventor's Signature Inventor's Name Prantik Sarkar	Date Application Signed _____
	Date Assignment Signed _____
Inventor's Signature Inventor's Name Harald Devos	Date Application Signed _____
	Date Assignment Signed _____
Inventor's Signature Inventor's Name Peter Niday	Date Application Signed _____
 Inventor's Signature Inventor's Name John Robert Kenneth Lefebvre, II (AKA Rob Lefebvre)	Date Assignment Signed <u>10-6-14</u> Date Application Signed <u>10-6-14</u>
	Date Assignment Signed _____
Inventor's Signature Inventor's Name Arbind Kumar	Date Application Signed _____
	Date Assignment Signed _____
Inventor's Signature Inventor's Name Atul Dubey	Date Application Signed _____

KEYSIGHT TECHNOLOGIES, INC.  
Legal Department  
Intellectual Property Administration  
900 South Taft Avenue  
Loveland, Colorado 80537

Attorney Docket No. 20140254-01

**ASSIGNMENT OF PATENT APPLICATION**

I/We, the undersigned (each) have agreed and hereby agree to assign to KEYSIGHT TECHNOLOGIES, INC., a Delaware corporation having its principal place of business in Santa Rosa, California, (hereinafter KEYSIGHT), in furtherance of my/our obligations to KEYSIGHT, and do hereby assign and transfer to KEYSIGHT, its successors and assigns, the entire right, title and interest, including the right of priority in, to and under an application for Letters Patent of the United States entitled: **Polymorphic Circuit Simulation System**

Filing date: 11/03/2014

Serial No.: 14/531,598

and the invention(s) and improvement(s) set forth therein, and any and all continuations, continuations-in-part (CIP's), divisionals, and renewals of and substitutes for said application for said Letters Patent, and any and all Letters Patent of the United States and of countries foreign thereto which may be granted thereon or therefor, and any reissues, or reexaminations, or extensions of said Letters Patent.

I/we additionally authorize KEYSIGHT to file applications in my/our name for Letters Patent in any country, to be held and enjoyed by KEYSIGHT, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by me/us had this assignment, and transfer not been made,

AND I/we hereby covenant that I/we have full right to convey the entire interest herein assigned, and that I/we have not executed and will not execute any agreement in conflict herewith, and I/we further covenant and agree that I/we will, each time a request is made, and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said invention(s) or improvement(s), said application and said Letters Patent, to KEYSIGHT, its successors, assigns, nominees or legal representatives, and I/we agree to communicate to KEYSIGHT, or to its nominee, all known facts respecting said invention(s) or improvement(s), said application and said Letters Patent, to testify in any legal proceedings, to sign all lawful papers, to execute all disclaimers and divisionals, continuations, CIP's, reissue and foreign applications, to make all rightful oaths and declarations, and generally to do everything possible to aid KEYSIGHT, its successors, assigns, nominees and legal representatives to obtain and enforce, for its or their own benefit, proper patent protection for said invention(s) or improvement(s) in any and all countries provided the expenses which may be incurred by me/us in lending such cooperation and assistance are paid by KEYSIGHT;


AND I/we hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue patents on applications as aforesaid, to issue to KEYSIGHT, as assignee of the entire right, title and interest, any and all Letters Patent for said invention(s) or improvement(s), including any and all Letters Patent of the United States which may be issued and granted on or as a result of the application aforesaid, in accordance with the terms of this assignment.

KEYSIGHT TECHNOLOGIES, INC.  
 Legal Department  
 Intellectual Property Administration  
 900 South Taft Avenue  
 Loveland, Colorado 80537

Attorney Docket No. 20140254-01

I/we further authorize and direct KEYSIGHT attorneys to insert the serial number and filing date of said application now identified by the attorney docket number and title set forth above as soon as the same shall have been made known to them by the United States Patent and Trademark Office.

**ASSIGNMENT OF PATENT APPLICATION (con't)**

_____ Inventor's Signature Inventor's Name Krishna Kumar Banka	Date Assignment Signed _____ Date Application Signed _____
_____ Inventor's Signature Inventor's Name Prantik Sarkar	Date Assignment Signed _____ Date Application Signed _____
_____ Inventor's Signature Inventor's Name Harald Devos	Date Assignment Signed _____ Date Application Signed _____
_____ Inventor's Signature Inventor's Name Peter Niday	Date Assignment Signed _____ Date Application Signed _____
_____ Inventor's Signature Inventor's Name Rob Lefebvre	Date Assignment Signed _____ Date Application Signed _____
 _____ Inventor's Signature Inventor's Name Arbind Kumar	Date Assignment Signed 10/03/2014 Date Application Signed _____
_____ Inventor's Signature Inventor's Name Atul Dubey	Date Assignment Signed _____ Date Application Signed _____