### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT3259683

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
KARAN KACKER	01/17/2008
DOUGLAS O POWELL	01/17/2008
DAVID L QUESTAD	01/17/2008
DAVID J RUSSELL	01/17/2008
SRI M SRI-JAYANTHA	03/10/2015

#### **RECEIVING PARTY DATA**

Name:	INTERNATIONAL BUSINESS MACHINES CORPORATION
Street Address:	NEW ORCHARD ROAD
City:	ARMONK
State/Country:	NEW YORK
Postal Code:	10504

### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Patent Number:	8242593

#### **CORRESPONDENCE DATA**

Fax Number: (914)766-7520

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.

Phone: 914-766-0607

Email: iplawyor@us.ibm.com

**Correspondent Name:** INTERNATIONAL BUSINESS MACHINES CORP

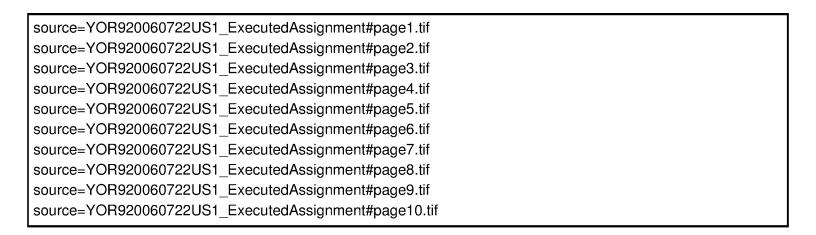
294 ROUTE 100, P.O. BOX 100 Address Line 1:

IBM CORPORATION IPLAW DEPARTMENT Address Line 2:

Address Line 4: SOMERS, NEW YORK 10589-0100

Total Attachments, 10	
DATE SIGNED:	03/11/2015
SIGNATURE:	/VAZKEN ALEXANIAN/
NAME OF SUBMITTER:	VAZKEN ALEXANIAN
ATTORNEY DOCKET NUMBER:	YOR920060722US1

Total Attachments: 10



# Assignment

Whereas, we

INVENTOR/CITY COUNTY/STATE	(1) Karan Kacker County of Cobb	City of: <b>Atlanta</b> State of: <b>Georgia</b>
INVENTOR/CITY COUNTY/STATE	(2) <b>Douglas O. Powell</b> County of <b>Tioga</b>	City of: <b>Endicott</b> State of: <b>New York</b>
INVENTOR/CITY COUNTY/STATE	(3) <b>David L. Questad</b> County of <b>Dutchess</b>	City of: <b>Hopewell Junction</b> State of: <b>New York</b>
INVENTOR/CITY COUNTY/STATE	(4) David J. Russell County of Tioga	City of: Owego State of: New York
INVENTOR/CITY COUNTY/STATE	(5) Sri M. Sri-Jayantha County of Westchester	City of: <b>Ossining</b> State of: <b>New York</b>
	have invented certain improvements in	
TITLE:	CLUSTERED STACKED VIAS FOR RELIABLE	ELECTRONIC SUBSTRATES
date(s):	and executed, respectively, a United States patent application	cation therefor on the following
DATE(S) THAT INVENTOR(S) SIGNED THE DECLARATION	(1) 17th Jan 2008 (2)	
DECEMBRITION	(3)(4)	
	(5)	

Whereas, INTERNATIONAL BUSINESS MACHINES CORPORATION, a corporation of New York, having a place of business at Armonk, New York 10504, (hereinafter called IBM), desires to acquire the entire right, title and interest in the said application and invention, and to any United States and foreign patents to be obtained therefor;

Now therefore, for a valuable consideration, receipt whereof is hereby acknowledged, I, the above named, hereby sell, assign, and transfer to IBM, its successors and assigns, the entire right, title and interest in the said application and invention therein disclosed for the United States and foreign countries, and all rights of priority resulting from the filing of

	Karan Kacker	
CITY/STATE DATE	at ATLANTA, on 17th JANUARY	2008
	Signed by (2): Douglas O. Powell	
CITY/STATE DATE	at, on	, 2008
	Signed by (3):	
CITY/STATE DATE	at, on	, 2008
	Signed by (4): David J. Russell	
CITY/STATE DATE	at, on	, 2008
	Signed by (5):  Sri M. Sri-Jayantha	
CITY/STATE DATE	at, on	, 2008

# Assignment

Whereas, we

(1)

INVENTOR/CITY

Karan Kacker

COUNTY/STATE	County of Cobb	State of: Georgia
INVENTOR/CITY COUNTY/STATE	(2) <b>Douglas O. Powell</b> County of <b>Tioga</b>	City of: <b>Endicott</b> State of: <b>New York</b>
INVENTOR/CITY COUNTY/STATE	(3) <b>David L. Questad</b> County of <b>Dutchess</b>	City of: <b>Hopewell Junction</b> State of: <b>New York</b>
INVENTOR/CITY COUNTY/STATE	(4) <b>David J. Russell</b> County of <b>Tioga</b>	City of: Owego State of: New York
INVENTOR/CITY COUNTY/STATE	(5) Sri M. Sri-Jayantha County of Westchester	City of: <b>Ossining</b> State of: <b>New York</b>
TITLE:	have invented certain improvements in  CLUSTERED STACKED VIAS FOR RELIABLE	ELECTRONIC SUBSTRATES
date(s):	and executed, respectively, a United States patent appli	cation therefor on the following
DATE(S) THAT INVENTOR(S) SIGNED THE	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	12008
DECLARATION		12008
	(5)	

Whereas, INTERNATIONAL BUSINESS MACHINES CORPORATION, a corporation of New York, having a place of business at Armonk, New York 10504, (hereinafter called IBM), desires to acquire the entire right, title and interest in the said application and invention, and to any United States and foreign patents to be obtained therefor;

Now therefore, for a valuable consideration, receipt whereof is hereby acknowledged, I, the above named, hereby sell, assign, and transfer to IBM, its successors and assigns, the entire right, title and interest in the said application and invention therein disclosed for the United States and foreign countries, and all rights of priority resulting from the filing of

PATENT REEL: 035133 FRAME: 0663

City of: Atlanta

	Signed by (1):
	Karan Kacker
CITY/STATE DATE	at,, 2008
	Signed by (2): Douglas D. Powell
CITY/STATE DATE	at Endicott, NY on January 17, 2008
	Signed by (3): David L. Questad
CITY/STATE DATE	at, 2008
	Signed by (4): Law Liesell David J. Russell
CITY/STATE DATE	at Endicoll , NY on January 17, 2008
	Signed by (5): Sri M. Sri-Jayantha
CITY/STATE	at
DATE	on, 2008

# Assignment

Whereas, we

INVENTOR/CITY COUNTY/STATE	(1) Karan Kacker County of Cobb	City of: <b>Atlanta</b> State of: <b>Georgia</b>
INVENTOR/CITY COUNTY/STATE	(2) <b>Douglas O. Powell</b> County of <b>Tioga</b>	City of: <b>Endicott</b> State of: <b>New York</b>
INVENTOR/CITY COUNTY/STATE	(3) <b>David L. Questad</b> County of <b>Dutchess</b>	City of: Hopewell Junction State of: New York
INVENTOR/CITY COUNTY/STATE	(4) <b>David J. Russell</b> County of <b>Tioga</b>	City of: Owego State of: New York
INVENTOR/CITY COUNTY/STATE	(5) Sri M. Sri-Jayantha County of Westchester	City of: <b>Ossining</b> State of: <b>New York</b>
	have invented certain improvements in	
TITLE:	CLUSTERED STACKED VIAS FOR RELIABLE	ELECTRONIC SUBSTRATES
date(s):	and executed, respectively, a United States patent appli	cation therefor on the following
DATE(S) THAT INVENTOR(S) SIGNED THE	(1)(2)	
DECLARATION	(3) $\frac{01/17/2058}{}$ (4)	
	(5)	

Whereas, INTERNATIONAL BUSINESS MACHINES CORPORATION, a corporation of New York, having a place of business at Armonk, New York 10504, (hereinafter called IBM), desires to acquire the entire right, title and interest in the said application and invention, and to any United States and foreign patents to be obtained therefor;

Now therefore, for a valuable consideration, receipt whereof is hereby acknowledged, I, the above named, hereby sell, assign, and transfer to IBM, its successors and assigns, the entire right, title and interest in the said application and invention therein disclosed for the United States and foreign countries, and all rights of priority resulting from the filing of

	Signed by (1):	
	Karan Kacker	
CITY/STATE DATE	at,	
DATE	, 2007	
	Signed by (2):  Douglas O. Powell	
CITY/STATE	at,	
DATE	on, 2007	
	Signed by (3): Lariel K. Kuesten  David L. Questad	
CITY/STATE	at Hopewell Junction, New York on Jan 17, 2008	
DATE	on <u>Jan 17</u> , 2005	
	Signed by (4): David J. Russell	
CITY/STATE	at,	
DATE	on, 2007	
	Signed by (5): Sri M. Sri-Jayantha	
CITY/STATE	at,	
DATE	on, 2007	

INVENTOR/CITY

# Assignment

Whereas, we

(1)

Karan Kacker

COUNTY/STATE	County of Cobb	State of: Georgia
INVENTOR/CITY COUNTY/STATE	(2) <b>Douglas O. Powell</b> County of <b>Tioga</b>	City of: <b>Endicott</b> State of: <b>New York</b>
INVENTOR/CITY COUNTY/STATE	(3) <b>David L. Questad</b> County of <b>Dutchess</b>	City of: <b>Hopewell Junction</b> State of: <b>New York</b>
INVENTOR/CITY COUNTY'STATE	(4) <b>David J. Russell</b> County of <b>Tioga</b>	City of: <b>Owego</b> State of: <b>New York</b>
INVENTOR/CITY COUNTY'STATE	(5) Sri M. Sri-Jayantha County of Westchester	City of: <b>Ossining</b> State of: <b>New York</b>
	have invented certain improvements in	
TITLE:	CLUSTERED STACKED VIAS FOR RELIABLE	ELECTRONIC SUBSTRATES
date(s):	and executed, respectively, a United States patent appli	cation therefor on the following
DATE(S) THAT INVENTOR(S) SIGNED THE DECLARATION	(1)(2)	
DECHARATION	(3)(4)	
	(5)	

Whereas. INTERNATIONAL BUSINESS MACHINES CORPORATION, a corporation of New York, having a place of business at Armonk, New York 10504, (hereinafter called IEM), desires to acquire the entire right, title and interest in the said application and invention, and to any United States and foreign patents to be obtained therefor;

Now therefore, for a valuable consideration, receipt whereof is hereby acknowledged, I, the above named, hereby sell, assign, and transfer to IBM, its successors and assigns, the entire right, title and interest in the said application and invention therein disclosed for the United States and foreign countries, and all rights of priority resulting from the filing of

PATENT REEL: 035133 FRAME: 0667

City of: Atlanta

	Signed by (1):	
	Karan Kacker	
CITY/STATE	at,	
DATE	on	., 2008
	Signed by (2):	
CITY/STATE	at,	
DATE	on	, 2008
	Signed by (3):	
CITY/STATE	at,	
DATE	on	, 2008
	Signed by (4): David J. Russell	
CITY/STATE	at,	
DATE	on	, 2008
	Signed by (5):Sri M. Sri-Jayantha	
CITY/STATE	at Yorkhaun Heights,	01/18/08
DATE	on	, 2008

IBM DOCKET NUMBER: YOR920060722US1

#### ASSIGNMENT

Whereas, I, a below named and undersigned inventor, have made certain inventions, improvements, and discoveries (herein referred to as the "Invention") in:

Title of the Invention: CLUSTERED STACKED VIAS FOR RELIABLE ELECTRONIC SUBSTRATES

and further identified by the IBM Docket Number provided above in the header of this Assignment, for which an application for a United States Patent was executed concurrently herewith or was filed having:

Patent No.: 8242593

Whereas, International Business Machines Corporation, a corporation of New York having a place of business at Armonk, New York (herein referred to as "IBM"), desires to acquire, and I desire to grant to IBM, my entire worldwide right, title, and interest in and to the Invention and in and to any and all patent applications and patents directed thereto;

Now, therefore, for good and valuable consideration, the receipt and sufficiency thereof being hereby acknowledged, I ("ASSIGNOR") hereby sell or have sold, assign or have assigned, and otherwise transfer or have transferred to IBM (the "ASSIGNEE"), its successors, legal representatives, and assigns, my entire worldwide right, title, and interest in and to the Invention, the above-identified United States patent application, and any and all other patent applications and patents for the Invention which may be applied for or granted therefor in the United States and in all foreign countries and jurisdictions, including all divisions, continuations, reissues, reexaminations, renewals, extensions, counterparts, substitutes, and extensions thereof, and all rights of priority resulting from the filing of such applications and granting of such patents. In addition, I hereby authorize and request the Director of the United States Patent and Trademark Office to issue any United States Patent, and foreign patent authorities to issue any foreign patent, granted for the Invention, to IBM, its successors, legal representatives, and assigns, my entire worldwide right, title, and interest in and to the same to be held and enjoyed by IBM, its successors, legal representatives, and assigns to the full end of the terms for which any and all such patents may be granted, as fully and entirely as would have been held and enjoyed by me had this Assignment not been made; and I agree to execute any and all documents and instruments and perform all lawful acts reasonably related to recording this Assignment or perfecting title to the Invention and all related patents and applications, in IBM, its successors, legal representatives, and assigns, whenever requested by IBM, its successors, legal representatives, or assigns.

I acknowledge my prior and ongoing obligations to sell, assign, and transfer my rights under this Assignment to IBM and am unaware of any reason why I may not have the full and unencumbered right to sell, assign, and transfer my rights hereby sold, assigned, and transferred, and have not executed, and will not execute, any document or instrument in conflict herewith. I also hereby grant IBM, its successors, legal representatives, and assigns, the right to insert in this Assignment any further identification (including, but not limited to, patent Application Number) which may be necessary or desirable for recordation of this Assignment. This Assignment is governed by the substantive laws of the State of New York, and any disputes will be resolved in a New York state court or federal court sited in New York.

[Inventor Signature Page(s) Follows]

IBM Assignment for an IBM U.S. utility patent application having a U.S. filing date BEFORE September 16, 2012

Page 1 of 2

### IBM DOCKET NUMBER: YOR920060722US1

(1)	Name of Inventor: KARAN KACKER	
	Signature:	Date:
(2)	Name of inventor: DOUGLAS O. POWELL	
	Signature:	Date:
(3)	Name of Inventor: DAVID L. QUESTAD	
	Signature:	Date:
(4)	Name of Inventor: DAVID J. RUSSELL	
	Signature:	Date:
(5)	Name of Inventor; SRI M. SRI-JAYANTHA	
	Signature: Maja	Date: 03/10/2015

[IF MORE INVENTORS, ADDITIONAL SIGNATURE PAGE(S) FOLLOWS]

IBM Assignment for an IBM U.S. utility patent application having a U.S. filing date BEFORE September 16, 2012

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