11/03/2017 504627127

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT4673845

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
EVAN G. COLGAN	06/05/2015
YI PAN	06/04/2015
HILTON T. TOY	06/05/2015
JEFFREY A. ZITZ	06/05/2015

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
Application Number:	15803365

CORRESPONDENCE DATA

Fax Number:

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: 612-616-8170 Email: matt@zpats.com

ZEHRER PATENT SERVICES MATTHEW ZEHRER Correspondent Name:

Address Line 1: 610 KINGSVIEW LN N

Address Line 4: PLYMOUTH, MINNESOTA 55447

ATTORNEY DOCKET NUMBER: FIS920150079US03	
NAME OF SUBMITTER:	MATTHEW ZEHRER
SIGNATURE:	/matthew zehrer/
DATE SIGNED:	11/03/2017
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 8

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DECLARATION (37 C.F.R. 1.63) FOR UTILITY PATENT APPLICATION USING AN APPLICATION DATA SHEET (37 C.F.R. 1.76) AND ASSIGNMENT

Title of Invention: CHIP MODULE WITH STIFFENING FRAME AND ORTHOGONAL HEAT SPREADER

As a below named and undersigned inventor, I hereby declare that:	
This declaration is directed to the attached application, or (if following box is checked):	
[X] United States application or PCT international application number	
The above-identified application was made or authorized to be made by me.	
I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.	
I have reviewed and understand the contents of the application, including the claims.	
I am aware of the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR Section 1.56.	

Whereas, I ("ASSIGNOR") have made certain inventions, improvements, and discoveries (herein referred to as the "Invention") disclosed in the above-identified patent application and further identified by the IBM Docket Number provided above in the header of this document:

Whereas, International Business Machines Corporation (herein referred to as the "ASSIGNEE"), a corporation of New York having a place of business at Armonk, New York, desires to acquire, and I desire to grant to the ASSIGNEE, 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 hereby sell or have sold, assign or have assigned, and otherwise transfer or have transferred to 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 the ASSIGNEE, its successors, legal representatives, and assigns, my entire worldwide right, title, and interest in and to the same to be held and enjoyed by the ASSIGNEE, 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 the ASSIGNEE, its successors, legal representatives, and assigns, whenever requested by the ASSIGNEE, its successors, legal representatives, or assigns.

Page 1 of 2

Lacknowledge my prior and ongoing obligations to sell, assign, and transfer my rights under this Assignment to the ASSIGNEE and an 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 the ASSIGNEE, 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.

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.

(1) Legal Name of Inventor: Evan	n G. Colgan		
Signature:	<u> 4 34</u>	Date:	<u></u>
(2) Legal Name of Inventor: Yi P	ain.		
Signature:		Date:	
(3) Legal Name of Inventor: Hilto	on T. Toy		
Signature:		Date:	*****
(4) Legal Name of Inventor: Jeffr	ey A. Zitz		
Signature:		Date:	

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Title of Invention: CHIP MODULE WITH STIFFENING FRAME AND ORTHOGONAL HEAT SPREADER

As a below named and undersigned inventor, I hereby declare that:
This declaration is directed to the attached application, or (if following box is checked):
[X] United States application or PCT international application number 14/732,119 filed on 6/5/2015
The above-identified application was made or authorized to be made by mc.
I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.
I have reviewed and understand the contents of the application, including the claims.
I am aware of the duty to disclose to the United States Patent and Trademark Office all information

Whereas, I ("ASSIGNOR") have made certain inventions, improvements, and discoveries (herein referred to as the "Invention") disclosed in the above-identified patent application and further identified by the IBM Docket Number provided above in the header of this document;

known to me to be material to patentability as defined in 37 CFR Section 1.56.

Whereas, International Business Machines Corporation (herein referred to as the "ASSIGNEE"), a corporation of New York having a place of business at Armonk, New York, desires to acquire, and I desire to grant to the ASSIGNEE, 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 hereby sell or have sold, assign or have assigned, and otherwise transfer or have transferred to 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 the ASSIGNEE, its successors, legal representatives, and assigns, my entire worldwide right, title, and interest in and to the same to be held and enjoyed by the ASSIGNEE, 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 the ASSIGNEE, its successors, legal representatives, and assigns, whenever requested by the ASSIGNEE, its successors, legal representatives, or assigns.

Page 1 of 2

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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.

(1)	Legal Name of Inventor: Evan G. Colgan	
	Signature:	Date:
(2)	Legal Name of Inventor: Yi Pan	
	Signature:	Date: 6/4/2015
(3)	Legal Name of Inventor: Hilton T. Toy	
	Signature	Date:
(4)	Legal Name of Inventor: Jeffrey A. Zitz	
	Signature:	Date:

DECLARATION (37 C.F.R. 1.63) FOR UTILITY PATENT APPLICATION USING AN APPLICATION DATA SHEET (37 C.F.R. 1.76) AND ASSIGNMENT

Title of Invention: CHIP MODULE WITH STIFFENING FRAME AND ORTHOGONAL HEAT SPREADER

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[X] United States application or PCT international application number	14/732,119
The above-identified application was made or authorized to be made by a	ne

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Now, therefore, for good and valuable consideration, the receipt and sufficiency thereof being hereby acknowledged. Thereby self or have sold, assign or have assigned, and otherwise transfer or have transferred to 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 the ASSIGNEE, its successors, legal representatives, and assigns, my entire worldwide right, title, and interest in and to the same to be held and enjoyed by the ASSIGNEE, 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 Lagree 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 the ASSIGNEE, its successors, legal representatives, and assigns, whenever requested by the ASSIGNEE, its successors, legal representatives, or assigns.

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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:

Signature:	Date:
(2) Legal Name of Inventor: Yi Pan	
Signature:	Date:
(3) Legal Name of Inventor: Hilton T. Toy	
Signature: 404 7-7	Date; <u>06/05/2</u> 0/3
(4) Legal Name of Inventor: Jeffrey A. Zitz	
Signature:	Date

DECLARATION (37 C.E.R. 1.63) FOR UTILITY PATENT APPLICATION USING AN APPLICATION DATA SHEET (37 C.E.R. 1.76) AND ASSIGNMENT

Title of Invention: CHIP MODULE WITH STIFFENING FRAME AND ORTHOGONAL HEAT SPREADER

As a below named and undersigned inventor, I hereby declare that

This declaration is directed to the attached application, or (if following box is checked):

[X] United States application of PCT international application number 44/732.119
[Hed on 6/5/2015]

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

I be heve that I am the original inventor or an original point inventor of a claimed invention in the application.

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

Lam aware of the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFP Section L56.

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Now, therefore, for good and valuable consideration, the receipt and sufficiency thereof being hereby acknowledged. Thereby self or have sold, a sign or have assigned, and otherwise transfer or have transferred to the ASSIGNEE, its successors, legal representatives, and assigns, my entire worldwide right, pale, and interest in and to the Inscintion, the above identified United States patent application, and any and all other pagent applications and patents for the Invention which may be applied for or granted therefore in the Legical States and multi-forcion countries and persolictions, including all discissions, COnfirmations, 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 parents. In addition, Thereby 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, grained for the Invention, to the ASSIGNEE, its successors, legal representatives, and assigns, my entite worldwide right, title, and interest in and to the same to be held and enjoyed by the ASSIGNEE, its successors, legal representatives, and assigns to the full end of the terms for which any and all such palegrams are be granted, as fully and entirely as would have been held and enjoyed by me had this Assuming a not been made, and I agree to execute any and all documents and instruments and perform all beard acts reasonably related to recording this Assignment or perfecting title to the bicention and all related patents and applications in the ASSIGNEE its successors, legal representatives, and assigns whenever requested by the ASSIGNEE, its successors legal representatives or accept

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(1) Legal Name of Inventor: Evan G. Colgan	
Signature	Date
(2) Legal Name of Inventor: Yi Pan	
Signature	Date
(3) Legal Name of Inventor: Hilton T. Toy	
Signature	Date
4) Legal Name of Inventor: Jeffrey A. Zitz Stematic A Company of the Company of	Date: 45/2405

Page 2 of 2