## 502536665 10/17/2013

### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT2582038

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
MARTIN HORVARTH	07/15/2013
JIRI MARSIK	07/15/2013
LADISLAV PINA	07/15/2013
VACLAV JELINEK	07/15/2013
NAOHISA OSAKA	06/11/2013
KAZUHIKO OMOTE	06/12/2013
MAKOTO KAMBE	06/11/2013
LICAI JIANG	06/17/2013
BONGLEA KIM	06/17/2013

### **RECEIVING PARTY DATA**

Name:	RIGAKU CORPORATION
Street Address:	3-9-12, MATSUBARA-CHO
City:	AKISHIMA-SHI, TOKYO
State/Country:	JAPAN
Postal Code:	196-8666

### PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14055453

## **CORRESPONDENCE DATA**

Fax Number: (703)205-8050 Phone: (703) 205-8000

Email: mailroom@bskb.com, lboone@bskb.com

Correspondence will be sent via US Mail when the email attempt is unsuccessful.

Correspondent Name: BIRCH, STEWART, KOLASCH & BIRCH, LLP

Address Line 1: P.O. BOX 747

Address Line 4: FALLS CHURCH, VIRGINIA 22040-0747

**PATENT** 

REEL: 031428 FRAME: 0592

JP \$40.00 14055453

ATTORNEY DOCKET NUMBER:	5132-0259PUS1
NAME OF SUBMITTER:	LA TESA BOONE
Signature:	/LA TESA BOONE/
Date:	10/17/2013
Total Attachments: 9 source=2013-10-17_Assignment_5132-025 source=2013-10-17_Assignment_5132-025 source=2013-10-17_Assignment_5132-025 source=2013-10-17_Assignment_5132-025 source=2013-10-17_Assignment_5132-025 source=2013-10-17_Assignment_5132-025 source=2013-10-17_Assignment_5132-025 source=2013-10-17_Assignment_5132-025 source=2013-10-17_Assignment_5132-025	9PUS1#page2.tif 9PUS1#page3.tif 9PUS1#page4.tif 9PUS1#page4.tif 9PUS1#page5.tif 9PUS1#page6.tif 9PUS1#page7.tif 9PUS1#page8.tif

PATENT REEL: 031428 FRAME: 0593

Application No. 14/055,453
Filed Date: October 16, 2013
Execution Date: June 11, 12, 17 & July 15, 2013
Attorney Docket No. 5132-0259PUS1

## BIRCH, STEWART, KOLASCH & BIRCH, LLP

# DECLARATION AND ASSIGNMENT FOR PATENT AND DESIGN APPLICATIONS

UNITED STATES PATENT RIGHTS, OR
UNITED STATES PLUS ALL FOREIGN PATENT RIGHTS

	As a below named inventor (hereinafter designated as the undersigned), I hereby declare that:
Application not Attached	⇒This declaration is directed to the application attached hereto. If the application is not attached hereto, the application is as identified by the attorney docket number as set forth above and/or the following:
Enter Appln. No.	Ounited States Application Number or PCT International Appln. No.
Enter Filing Date	⇒filed on
	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 above-identified application, including the claims.
	I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations § 1.56.
	WHEREAS, the undersigned has invented certain new and useful improvements described in the application identified.
Insert Name of Assignee	⇒WHEREAS, Rigaku Corporation
Insert Address of Assignee	of 3-9-12, Matsubara-cho, Akishima-shi, Tokyo 196-8666 Japan!
	its heirs, successors, legal representatives and assigns (hereinafter designated as the Assignee) is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent(s) that may be granted therefor in the United States of America and
Check Box if Appropriate	⇒ in any foreign countries.
	NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned has sold, assigned and transferred, and by these presents does (do) sell, assign and transfer unto said Assignee the full and exclusive right to the said invention in the United States of America, its territories, dependencies and possessions and the entire right, title and interest in and to any and all Letters Patent(s) which may be granted therefor in the United States of America, its territories, dependencies and possessions, and if the box above is designated, in any and all foreign countries; and to any and all divisions, reissues, continuations, conversions and extensions thereof for the full term or terms for which the same may be granted.

The undersigned agrees to execute all papers necessary in connection with this application and any continuing, divisional, conversion or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

The undersigned agrees to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation, division, conversion or reissue thereof or Letters Patent(s) or reissue patent issued thereon and to cooperate with the Assignee in every way possible in obtaining and producing evidence and proceeding with such interference.

The undersigned agrees to execute all papers and documents and to perform any act which may be necessary in connection with claims or provisions of the International Convention for the Protection of Industrial Property or similar agreements.

The undersigned agrees to perform all affirmative acts which may be necessary to obtain a grant of (a) valid United States of America patent(s) or a grant of (a) valid United States of America and any foreign patent(s) to the Assignee and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by the undersigned if this Assignment and sale had not been made.

The undersigned hereby authorizes and requests the Patent and Trademark Office Officials in the United States of America and in any foreign countries to issue any and all Letters Patent(s) resulting from said application or any continuing, divisional conversion or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has the full right to convey the entire interest herein assigned, and that he has not executed, and will not execute, any agreement in conflict herewith.

The undersigned hereby grants the law firm of Birch, Stewart, Kolasch & Birch, LLP the power to insert any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office.

The undersigned hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

The undersigned hereby acknowledges 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.

In witness whereof, executed by the undersigned on the date opposite the undersigned name.

	LEGAL N	AME OF INVENTOR				
Inventor's Name	⇒ Inventor:	Martin HORVARTH	Date: _	7/	15/2013	
Inventor's Signature ⇒ Signature:		Somath				
An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form.  Use a separate form for each inventor; or check the box below and complete the attached page(s) to list additional inventors.						
☑Additional i	nventors are b	eing named on the 1 supplemental sheet(s) attached hereto	).			

# SUPPLEMENTAL SHEET FOR DECLARATION AND ASSIGNMENT

## ADDITIONAL INVENTOR(S) Supplemental Sheet Page 1 of 1

	LEGAL N	AME OF JOINT INVENTOR, IF ANY		1
Inventor's Name	⇒ Inventor:	Jiri MARSIK	Date:	7   15   2013
Inventor's Signature	⇒ Signature:	Muril		
	LEGAL N	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name		Ladislav PINA	Date:	7/15/2013
Inventor's Signature			-	
	TEGÁT N	AME OF JOINT INVENTOR, IF ANY		
	LEGALIV	AND OF JOHN INVENTOR, IF ANY		5/1= /12 -
Inventor's Name	⇔Inventor:	Vaclav JELINEK	Date: _	7/15/2013
Inventor's Signature	⇔Signature:	fully		
	LEGAL N.	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇒Inventor:	Naohisa OSAKA	Date:	
Inventor's Signature	⇒Signature:			
	LEGAL N	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇔Inventor:	Kazuhiko OMOTE	Date:	
Inventor's Signature	⇒Signature:			
	LEGAL N.	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇔Inventor:	Makoto KAMBE	Date:	
Inventor's Signature	⇔Signature:			
	LEGAL N	AME OF JOINT INVENTOR, IF ANY		-
Inventor's Name	⇔Inventor:	Licai JIANG	Date:	· · · · · · · · · · · · · · · · · · ·
Inventor's Signature	⇔Signature:			
	LEGÁL N	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇒Inventor:	Bonglea KIM	Date:	
Inventor's Signature	⇔Signature:		····	

BSKB-DECASSIGN\(09-12)

PATENT REEL: 031428 FRAME: 0596

# BIRCH, STEWART, KOLASCH & BIRCH, LLP

P.O. Box 747 • Falls Church, Virginia 22040-0747 Telephone: (703) 205-8000 • Facsimile: (703) 205-8050 • Email: mailroom@bskb.com

## **DECLARATION AND ASSIGNMENT** FOR PATENT AND DESIGN APPLICATIONS

UNITED STATES PATENT RIGHTS, OR UNITED STATES PLUS ALL FOREIGN PATENT RIGHTS

	As a below named inventor (hereinafter designated as the undersigned), I hereby declare that:
Application not Attached	⇔ This declaration is directed to the application attached hereto. If the application is not attached hereto, the application is as identified by the attorney docket number as set forth above and/or the following:
Inter Appln. No.	→ United States Application Number or PCT International Appln.  No.
inter Filing Date	⇒filed on
	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 above-identified application, including the claims.
	I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations $\S$ 1.56.
	WHEREAS, the undersigned has invented certain new and useful improvements described in the application identified.
nsert Name of Assignee	⇒WHEREAS, Rigaku Corporation
nsert Address of Assignee	⇒of 3-9-12, Matsubara-cho, Akishima-shi, Tokyoʻ 196-8666 Japan /
	its heirs, successors, legal representatives and assigns (hereinafter designated as the Assignee) is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent(s) that may be granted therefor in the United States of America and
Check Box if Appropriate	⇔ in any foreign countries.
	NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned has sold, assigned and transferred, and by these presents does (do) sell, assign and transfer unto said Assignee the full and exclusive right to the said invention in the United States of America, its territories, dependencies and possessions and the entire right, title and interest in and to any and all Letters Patent(s) which may be granted therefor in the United States of America, its territories, dependencies and possessions, and if the box above is designated, in any and all foreign countries; and to any and all divisions, reissues, continuations, conversions and extensions thereof for the full term or terms for which the same may be granted.

The undersigned agrees to execute all papers necessary in connection with this application and any continuing, divisional, conversion or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

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The undersigned agrees to execute all papers and documents and to perform any act which may be necessary in connection with claims or provisions of the International Convention for the Protection of Industrial Property or similar agreements.

The undersigned agrees to perform all affirmative acts which may be necessary to obtain a grant of (a) valid United States of America patent(s) or a grant of (a) valid United States of America and any foreign patent(s) to the Assignee and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by the undersigned if this Assignment and sale had not been made.

The undersigned hereby authorizes and requests the Patent and Trademark Office Officials in the United States of America and in any foreign countries to issue any and all Letters Patent(s) resulting from said application or any continuing, divisional conversion or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has the full right to convey the entire interest herein assigned, and that he has not executed, and will not execute, any agreement in conflict herewith.

The undersigned hereby grants the law firm of Birch, Stewart, Kolasch & Birch, LLP the power to insert any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office.

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The undersigned hereby acknowledges 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.

In witness whereof, executed by the undersigned on the date opposite the undersigned name.

### LEGAL NAME OF INVENTOR

		Or million	
Inventor's Name	⇒ Inventor:	Martin HORVARTH	Date:
Inventor's Signatur	e ⇒ Signature:		
			naming the entire inventive entity, must accompany this form. In a complete the attached page(s) to list additional inventors.
[Additional	inventore are	raing named on the 1 cumulaments	Laboration attached horato

# SUPPLEMENTAL SHEET FOR DECLARATION AND ASSIGNMENT

## ADDITIONAL INVENTOR(S) Supplemental Sheet Page 1 of 1

	LEGAL N	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇒ Inventor:	Jiri MARSIK	Date:	
Inventor's Signature	⇒ Signature:			
	LEGAL N	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇒ Inventor:	Ladislav/PINA/	Date:	
Inventor's Signature	⇒ Signature:			
	LEGAL N.	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇔Inventor:	Vaclav JELINEK	Date:	
Inventor's Signature	⇔Signature:			
	LEGAL N.	AME OF JOINT INVENTOR, IF ANY	:	
Inventor's Name	⇔Inventor:	Naohisa OSAKA	Date:	6/11/2013
Inventor's Signature	⇔Signature:	Traction Osak.		
	LEGAL N.	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇔Inventor:	Kazuhiko OMOTE	Date:	6/12/2013
Inventor's Signature	⇔Signature:	Chotest	······································	· · · · · · · · · · · · · · · · · · ·
	LEGAL N.	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇔Inventor:	Makoto KAMBE	Date:	6 / 11 / 2013
Inventor's Signature	⇔Signature:	makoto Kambe		
	LEGAL N	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇔Inventor:	Licai JIANG	Date:	
Inventor's Signature	⇔Signature:			
	LEGAL N	AME OF JOINT INVENTOR, IF ANY		
Inventor's Name	⇒Inventor:	Bonglea KIM	Date:	
Inventor's Signature	⇔Signature:			

BSKB-DECASSIGN\(09-12)

PATENT REEL: 031428 FRAME: 0599

## BIRCH, STEWART, KOLASCH & BIRCH, LLP

P.O. Box 747 • Falls Church, Virginia 22040-0747

Telephone: (703) 205-8000 • Facsimile: (703) 205-8050 • Email: mailroom@bskb.com

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nsert Name of Assignee	⇒WHEREAS, Rigaku Corporation
nsert Address of Assignee	⇔of 3-9-12, Matsubara-cho, Akishima-shi, Tokyo 196-8666 Japan /
<b>g</b> .	its heirs, successors, legal representatives and assigns (hereinafter designated as the Assignee) is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent(s) that may be granted therefor in the United States of America and
Check Box if Appropriate	in any foreign countries.
·	NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, the undersigned has sold, assigned and transferred, and by these presents does (do) sell, assign and transfer unto said Assignee the full and exclusive right to the said invention in the United States of America, its territories, dependencies and possessions and the entire right, title and interest in and to any and all Letters Patent(s) which may be granted therefor in the United States of America, its territories, dependencies and possessions, and if the box above is designated, in any and all foreign countries; and to any and all divisions, reissues, continuations, conversions and extensions thereof for the full term or terms for which the same may be granted.

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The undersigned hereby acknowledges 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.

In witness whereof, executed by the undersigned on the date opposite the undersigned name.

#### LEGAL NAME OF INVENTOR

Inventor's Name	⇔ Inventor:	Martin HORVARTH	Date:				
Inventor's Signature	<sup>; ⇔</sup> Signature:						
An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. Use a separate form for each inventor; or check the box below and complete the attached page(s) to list additional inventors.							
Additional inventors are being named on the 1 supplemental sheet(s) attached hereto.							

Page 2

BSKB-DECASSIGN-SINGLE (09-12)

# SUPPLEMENTAL SHEET FOR DECLARATION AND ASSIGNMENT

# ADDITIONAL INVENTOR(S) Supplemental Sheet Page 1 of 1

	LEGAL N	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇒ Inventor:	Jiri MARSIK	Date:
inventor's Signature	⇒ Signature:		
	IECAL N	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇒ Inventor:	Ladislav PINA	Date:
Inventor's Signature	⇒ Signature:		
	LEGAL N	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇔Inventor:	Vaclav JELINEK	Date:
hiventor's Signature			
	LEGAL N.	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇔Inventor:	Naohisa OSAKA	Date:
Inventor's Signature	⇔Signature:		•
	LEGAL N	AME OF JOINT INVENTOR, IF ANY	
luventor's Name	್Inventor:	Kazuhiko OMOTE	Date:
Inventor's Signature	⇔Signature:		
	•	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇔Inventor:	Makoto KAMBE	Date:
Inventor's Signature	⇔Signature:	·	
	LEGAL N.	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name,	⇔Inventor:	Licai JIANG	Date: $\frac{6/17/2013}{}$
Inventor's Signature	⇒Signature:	h = 8	,
	LEGAL N.	AME OF JOINT INVENTOR, IF ANY	
Inventor's Name	⇒Inventor:	Bonglea KIM	Date: 6/17/2013
Inventor's Signature	⇔Signature:	begli li	

BSKB-DECASSIGN\(09-12)

PATENT REEL: 031428 FRAME: 0602

**RECORDED: 10/17/2013**