PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5381762

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
NORITSUGU TAKAHASHI	01/09/2019
MAKOTO SAKAKIBARA	01/11/2019
WATARU MORI	01/10/2019
HAJIME KAWANO	01/09/2019
YUKO SASAKI	01/07/2019

RECEIVING PARTY DATA

Name:	HITACHI HIGH-TECHNOLOGIES CORPORATION
Street Address:	24-14, NISHI-SHIMBASHI 1-CHOME
Internal Address:	MINATO-KU
City:	TOKYO
State/Country:	JAPAN
Postal Code:	105-8717

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16325662

CORRESPONDENCE DATA

Fax Number: (215)568-6499

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: 215-568-6400 Email: mschon@vklaw.com

Correspondent Name: VOLPE AND KOENIG, P.C.

Address Line 1: 30 S. 17TH STREET

Address Line 2: **SUITE 1800**

Address Line 4: PHILADELPHIA, PENNSYLVANIA 19103

ATTORNEY DOCKET NUMBER:	HITACHI3-341600383US01
NAME OF SUBMITTER:	GERALD B. HALT, JR.
SIGNATURE:	/Gerald B. Halt, Jr./
DATE SIGNED:	02/19/2019

Total Attachments: 5 source=341600383US01_Assignment_EFS#page1.tif source=341600383US01_Assignment_EFS#page2.tif source=341600383US01_Assignment_EFS#page3.tif source=341600383US01_Assignment_EFS#page4.tif source=341600383US01_Assignment_EFS#page5.tif

ASSIGNMENT

(譲渡証)

As a below named inventor, I hereby declare that:

IN CONSIDERATION of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration paid to me citizen of Japan by Hitachi High-Technologies Corporation, a corporation organized under the laws of Japan,

located at 24-14, Nishi-Shimbashi 1-chome, Minato-ku, Tokyo 105-8717, Japan,

receipt of which is hereby acknowledged I do hereby sell and assign to said. Hitachi High-Technologies Corporation, its successors and assigns, all my right, title and interest, in and for the United States of America, in and to

MEASURING DEVICE AND MEASURING METHOD

invented by me (if only one is named below) or us (if plural inventors are named below) and described in the application for United States Letters Patent therefor, executed on even date herewith, and all United States Letters Patent which may be granted therefor, and all divisions, continuations and extensions thereof, the said interest being the entire ownership of the said Letters Patent when granted,

to be held and enjoyed by said Hitachi High-Technologies Corporation,

its successors, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said assignee;

And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said Hitachi High-Technologies Corporation,

Signed on the date(s) indicated aside our signatures:

	INVENTOR(S) (発明者フルネームサイン)			Date Signed (署名日)
1)	Noritangu	Takahashi	Noritsugu TAKAHASHI	1/9/2019
2)			Makoto SAKAKIBARA	
3)			Wataru MORI	
4)			Hajime KAWANO	
5)			Yuko SASAKI	
6)				
7)				
8)		······································		
9)				
40\				

ASSIGNMENT

(譲渡証)

As a below named inventor, I hereby declare that:

IN CONSIDERATION of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration paid to me citizen of Japan by Hitachi High-Technologies Corporation, a corporation organized under the laws of Japan,

located at 24-14, Nishi-Shimbashi 1-chome, Minato-ku, Tokyo 105-8717, Japan,

receipt of which is hereby acknowledged I do hereby sell and assign to said. Hitachi High-Technologies Corporation, its successors and assigns, all my right, title and interest, in and for the United States of America, in and to

MEASURING DEVICE AND MEASURING METHOD

invented by me (if only one is named below) or us (if plural inventors are named below) and described in the application for United States Letters Patent therefor, executed on even date herewith, and all United States Letters Patent which may be granted therefor, and all divisions, continuations and extensions thereof, the said interest being the entire ownership of the said Letters Patent when granted,

to be held and enjoyed by said Hitachi High-Technologies Corporation,

its successors, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said assignee;

And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said Hitachi High-Technologies Corporation,

Signed on the date(s) indicated aside our signatures:

INVENTOR(S)

	(発明者フルネームサイン)		(署名日)	
1)		Noritsugu TAKAHASHI		
2)	makoto Sakakibara	Makoto SAKAKIBARA	1/11/2019	
3)		Wataru MORI		
4)		Hajime KAWANO		
5)		Yuko SASAKI		
6)				*****
7)	,			
8)		ALL PARTY OF THE P	-	
9)			WALLES AND A SECOND ASSESSMENT AND A SECOND ASSESSMENT	
40)				

PATENT REEL: 048370 FRAME: 0948

Date Signed

ASSIGNMENT

(譲渡証)

As a below named inventor, I hereby declare that:

IN CONSIDERATION of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration paid to me citizen of Japan by Hitachi High-Technologies Corporation, a corporation organized under the laws of Japan,

located at 24-14, Nishi-Shimbashi 1-chome, Minato-ku, Tokyo 105-8717, Japan,

receipt of which is hereby acknowledged I do hereby sell and assign to said. Hitachi High-Technologies Corporation, its successors and assigns, all my right, title and interest, in and for the United States of America, in and to

MEASURING DEVICE AND MEASURING METHOD

Invented by me (if only one is named below) or us (if plural inventors are named below) and described in the application for United States Letters Patent therefor, executed on even date herewith, and all United States Letters Patent which may be granted therefor, and all divisions, continuations and extensions thereof, the said interest being the entire ownership of the said Letters Patent when granted,

to be held and enjoyed by said. Hitachi High-Technologies Corporation,

its successors, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said assignee;

And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said Hitachi High-Technologies Corporation,

Signed on the date(s) indicated aside our signatures:

	INVENTOR(S) (発明者フルネームサイン)		Date Signed (署名日)	
1).			Noritsugu TAKAHASHI	
2)		•	Makoto SAKAKIBARA	
3)	Watam	Mori	Wataru MORI	1/10/2019
4).			Hajime KAWANO	
5)			Yuko SASAKI	
6)	···_			
7)				
8)				
9)_		N. (1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-		
4.03				

ASSIGNMENT (譲渡証)

As a below named inventor, I hereby declare that:

IN CONSIDERATION of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration paid to me citizen of Japan by Hitachi High-Technologies Corporation, a corporation organized under the laws of Japan,

located at 24-14, Nishi-Shimbashi 1-chome, Minato-ku, Tokyo 105-8717, Japan,

receipt of which is hereby acknowledged I do hereby sell and assign to said. Hitachi High-Technologies Corporation, its successors and assigns, all my right, title and interest, in and for the United States of America, in and to

MEASURING DEVICE AND MEASURING METHOD

invented by me (if only one is named below) or us (if plural inventors are named below) and described in the application for United States Letters Patent therefor, executed on even date herewith, and all United States Letters Patent which may be granted therefor, and all divisions, continuations and extensions thereof, the said interest being the entire ownership of the said Letters Patent when granted,

to be held and enjoyed by said Hitachi High-Technologies Corporation,

INVENTOR(S)

its successors, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said assignee;

And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said Hitachi High-Technologies Corporation,

Signed on the date(s) indicated aside our signatures:

	(発明者フルネームサイン)	(署名日)
1)	Noritsugu TAKAHASHI	
2)	Makoto SAKAKIBARA	
3)	Wataru MORI	
4) / fájí	An R XALLALANO Hajime KAWANO	1/9/2019
5)	Yuko SASAKI	
6)		
7)		
8)		
9)		
10)		

PATENT REEL: 048370 FRAME: 0950

Date Signed

ASSIGNMENT (譲渡証)

As a below named inventor, I hereby declare that:

IN CONSIDERATION of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration paid to me citizen of Japan by Hitachi High-Technologies Corporation, a corporation organized under the laws of Japan,

located at 24-14, Nishi-Shimbashi 1-chome, Minato-ku, Tokyo 105-8717, Japan,

receipt of which is hereby acknowledged i do hereby sell and assign to said. Hitachi High-Technologies Corporation, its successors and assigns, all my right, title and interest, in and for the United States of America, in and to

MEASURING DEVICE AND MEASURING METHOD

invented by me (if only one is named below) or us (if plural inventors are named below) and described in the application for United States Letters Patent therefor, executed on even date herewith, and all United States Letters Patent which may be granted therefor, and all divisions, continuations and extensions thereof, the said interest being the entire ownership of the said Letters Patent when granted,

to be held and enjoyed by said Hitachi High-Technologies Corporation,

its successors, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or relssue applications or in any amendment, extension, or interference proceedings, or otherwise to secure the title thereto in said assignee;

And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said Hitachi High-Technologies Corporation,

Signed on the date(s) indicated aside our signatures:

	INVENTOR(S) (発明者フルネームサイン)		Date Signed (署名日)	
1)_		Noritsugu TAKAHASHI		
2)_		Makoto SAKAKIBARA		
3)_		Wataru MORI		
4)_		Hajime KAWANO		
5)_	Yuko Sasahi	Yuko SASAKI	1/7/2019	
6)_				
7)_		•	<u></u>	
8)_				
9)				
400				

PATENT REEL: 048370 FRAME: 0951

RECORDED: 02/19/2019