#### 504677170 12/07/2017

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4723892

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
HIROSHI KOBAYASHI	10/30/2017
AKIRA KARAKAMA	10/27/2017
NORIO SATO	11/10/2017

### **RECEIVING PARTY DATA**

Name:	HITACHI HIGH-TECHNOLOGIES CORPOARATION
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:	15580231

### 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.

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Email: mschon@vklaw.com

**Correspondent Name:** VOLPE AND KOENIG, P.C.

Address Line 1: UNITED PLAZA

Address Line 2: 30 SOUTH 17TH STREET, 18TH FLOOR Address Line 4: PHILADELPHIA, PENNSYLVANIA 19103

ATTORNEY DOCKET NUMBER:	HITACHI2-111500198US01
NAME OF SUBMITTER:	GERALD B. HALT, JR.
SIGNATURE:	/Gerald B. Halt, Jr./
DATE SIGNED:	12/07/2017

**Total Attachments: 3** 

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**PATENT** REEL: 044333 FRAME: 0593 504677170

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PATENT REEL: 044333 FRAME: 0594

## **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 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

### CHARGED PARTICLE BEAM DEVICE AND CONTROL METHOD OF CHARGED PARTICLE BEAM DEVICE

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) .	Hiroshi Kobayashi	Hiroshi KOBAYASHI	10 / 30 / 2017
2)		Akira KARAKAMA	-
3)		Norio SATO	
4)	M		
5)			
6)		·	
7)		· · · · · · · · · · · · · · · · · · ·	
8)			

PATENT REEL: 044333 FRAME: 0595

Data Signad

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to be held and enjoyed by said. HITACHI HIGH-TECHNOLOGIES CORPORATION

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And I do hereby authorize and request the Commissioner of Patents to issue said Letters Paient 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)		Oate Signed (繁名日)	
1)	Hiroshi KOBAYASHI		
2)	Ohira Karahama Akira KARAKAMA	10/27/20/7	
3)	Norio SATO	<u></u>	
4)			
5)			
6)			
7)			
8)			

PATENT REEL: 044333 FRAME: 0596

# ASSIGNMENT

(藤渡証)

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	INVENTOR(S) (発明者フルネームサイン)	Date Signed (署名月)
1)	Hiroshi KOBAYASHI	:
2)	Akira KARAKAMA	
3)	noris Lite Norio SATO	11/10/2017
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5)		·
8)		X
7)		
8)		

PATENT REEL: 044333 FRAME: 0597

**RECORDED: 12/07/2017**