11/25/2019 505789605

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5836433

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
TOSHIFUMI HONDA	11/07/2019
SHUNICHI MATSUMOTO	11/07/2019
MASAMI MAKUUCHI	11/11/2019
YUTA URANO	11/19/2019
KEIKO OKA	11/07/2019

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:	16616069

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: Igivigliano@vklaw.com **Correspondent Name:** VOLPE AND KOENIG, P.C.

Address Line 1: 30 SOUTH 17TH STREET, 18TH FLOOR Address Line 4: PHILADELPHIA, PENNSYLVANIA 19103

ATTORNEY DOCKET NUMBER:	HITACHI19-341700104US01
NAME OF SUBMITTER:	GERALD B. HALT, JR.
SIGNATURE:	/Gerald B. Halt, Jr./
DATE SIGNED:	11/25/2019

Total Attachments: 5

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PATENT REEL: 051099 FRAME: 0849

(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, Japan

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

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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 successor, 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).	Toshifumi bondar Toshifumi HONDA	Nav. 7, 2019
2)_	Shunichi MATSUMOTO	
3)_	Masami MAKUUCHI	
4)_	Yuta URANO	
5)	Keiko OKA	

Date Signed

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INVENTOR(S)

(発明者フルネームサイン)

1)	Toshifumi HONDA	
2)	Shunichi Matsumoto Shunichi Matsumoto	November 7, 2019
3)	Masami MAKUUCHI	
4)	Yuta URANO	

Keiko OKA

PATENT REEL: 051099 FRAME: 0851

Date Signed

(署名日)

(譲渡証)

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(発明者ノルネームサイン)		(者名日)
	Toshifumi HONDA	
	Shunichi MATSUMOTO	
masami makuu	h Masami MAKUUCHI	11/11/2019
	Yuta URANO	

Keiko OKA

PATENT REEL: 051099 FRAME: 0852

Date Signed

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	(発明者 ノルネームサイン)	(著名日)
1)_	Toshifumi HONDA	
2)_	Shunichi MATSUMOTO	
3)_	Masami MAKUUCHI	
4)_	Yuta Uramo Yuta URANO	11/19/2019
5)	Keiko OKA	

PATENT REEL: 051099 FRAME: 0853

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1)	Toshifumi HONDA	
2)	Shunichi MATSUMOTO	
3)	Masami MAKUUCHI	
4)	Yuta URANO	
5)	Keiko Oka Keiko OKA	11/7/2019

PATENT REEL: 051099 FRAME: 0854

RECORDED: 11/25/2019