#### 12/14/2015 503610208

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3656839

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
SHUICHI FUNAHASHI	11/12/2015
TAKANORI NAKAMURA	11/12/2015
MASARU MOCHIZUKI	12/02/2015
NOBORU ABE	12/02/2015
JUNYA CHUJO	12/02/2015

### RECEIVING PARTY DATA

MURATA MANUFACTURING CO., LTD.
10-1 HIGASHIKOTARI 1-CHOME
NAGAOKAKYO-SHI, KYOTO-FU
JAPAN
617-8555
DAIHATSU DIESEL MFG. CO., LTD.
1-30, OYODONAKA, 1-CHOME, KITA-KU
OSAKA-SHI, OSAKA
JAPAN
531-0076

# **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	14967936

# **CORRESPONDENCE DATA**

**Fax Number:** (212)484-3990

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Phone: 212-484-3900

Email: patentdocket@arentfox.com, inga.hildreth@arentfox.com

**Correspondent Name:** ARENT FOX LLP Address Line 1: 1675 BROADWAY

Address Line 4: NEW YORK, NEW YORK 10019

ATTORNEY DOCKET NUMBER: 036470.00057

> **PATENT REEL: 037284 FRAME: 0188**

503610208

NAME OF SUBMITTER:	INGA HILDRETH
SIGNATURE:	/IH/
<b>DATE SIGNED:</b> 12/14/2015	
	This document serves as an Oath/Declaration (37 CFR 1.63).
Total Attachments: 5	
source=036470_00057_assignment#page1.tif	
source=036470_00057_assignment#page2.tif	
source=036470_00057_assignment#page3.tif	
source=036470 00057 assignment#page4.tif	

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PATENT REEL: 037284 FRAME: 0189

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT	
Title of Invention	TEMPERATURE DETECTING DEVICE
As the bek	ow named inventor, I declare that:
This declar	ration is directed to:
	X The attached application, or
	United States application or PCT international application number
The above	-identified application was made or authorized to be made by me.
I believe th	et I am the original inventor or an original joint inventor of a claimed invention in the application.
I have revi	awed and understand the contents of the above-identified application, including the claims.
mie to be m material ini	dge the duty to disclose to the United States Patent and Trademark Office all information known to naterial to patentability as defined in 37 CFR 1 56, including for continuation-in-part applications, formation which became available between the filing date of the prior application and the national or ational filing date of the continuation-in-part application.
essignor, in Higashikota having an tare rend/or clair application rights of pri Patents on therefrom Land my leg execute an all assignmany interfer to sign all other coall other coall assignmany interfer successions.	are 1-chome. Nagackakyo-shi, Kyoto-fu 617-8565, Japan; and Daihatsu Diesel Mfg. Co., Ltd., ari 1-chome. Nagackakyo-shi, Kyoto-fu 617-8565, Japan; and Daihatsu Diesel Mfg. Co., Ltd., address at 1-30, Oyodonaka, 1-chome, Kita-ku, Osaka-shi, Osaka 531-0076 Japan; as assigness, ight, title and interest for the United States and all other countries in and to all inventions disclosed med in the above-identified application, all original, divisional, continuation, substitute or reissue is and patents applied for or granted therefor in the United States and all other countries, including all lority from the filing of said application, and all rights for past infringement, and the Commissioner of differential interest is hereby authorized and requested to issue all patents on said inventions or resulting o said assigness herein, as assigness of the entire interest therein; and the undersigned for myself all representatives, heirs and assigns do hereby agree and covenant without further remuneration, to dideliver all divisional, continuation, reissue and other applications for Patent on said inventions and tents thereof to said assigness or their assigns, to communicate to said assignees or their senses, all facts known to the undersigned respecting said inventions, whenever requested, to testify in tences or other legal proceedings in which any of said applications or patents may become involved, awith pagens, make all rightful oaths, and to do generally everything necessary to assist assignees, assigns and nominees to obtain patent protection for said inventions in the United States and juntiles, the expenses incident to said applications to be borne and paid by said assignees.
The unders made or en	signed hereby covenants that no assignment, sale, agreement or encumbrance has been or will be stered into which would conflict with this assignment.
are believe statements	nts made herein of my own knowledge are true, all statements made herein on information and belief d to be true, and further that these statements were made with the knowledge that willful false and the like are punishable under 18 ∪ S C 1001 by fine or imprisonment of not more than five (5) oth, and may jeopardize the validity of the application or any patent issuing thereon.
LEGAL NA	ME OF INVENTOR
	Shulchi Funahashi Dats: Aggs 12 12 12 12 12 12 12 12 12 12 12 12 12
inventor:	Ondoer Targeton
Signature:	

AFDOC8/12567037.1

DEC	DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT	
Title of Invention	TEMPERATURE DETECTING DEVICE	
As the belo	w named inventor, t declare that:	
This declar	ation is directed to:	
1	X The attached application, or	
	United States application or PCT international application number filed on	
The above-	identified application was made or authorized to be made by me.	
	at I am the original inventor or an original joint inventor of a claimed invention in the application.	
	wed and understand the contents of the above-identified application, including the claims.	
me to be in	ige the duty to disclose to the United States Patent and Trademark Office all information known to aterial to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, ormation which became available between the filing date of the prior application and the national or ational filing date of the continuation-in-part application.	
assignor, he rigashikots having an the entire of the entire of another of the execute and my legitassignor representations in their successil other contents of the entire	In valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I, as preby sell, assign and set over to Murata Manufacturing Co., Ltd., having an address at 10-1, in 1-chome. Nagackakye-shi, Kydo-fu \$17-8555, Japan, and Daihatau Diesel Mfg. Co., Ltd., in 1-chome. Nagackakye-shi, Kydo-fu \$17-8555, Japan, and Daihatau Diesel Mfg. Co., Ltd., indiress at 1-50, Oyodenaka. 1-chome. Kite-ku, Osaka-shi. Osaka \$31-0076 Japan, as assignees, ght, title and interest for the United States and all other countries in and to all inventions disclosed here in the shove-identified application, all original, divisional, continuation, substitute or reissue at and patents applied for or granted therefor in the United States and all other countries, including all ority from the filling of said application, and all rights for past infringement, and the Commissioner of a Trademarks is hereby authorized and requested to issue all patents on said inventions or resulting to said assignees herein, as assignees of the entire interest therein; and the undersigned for myself all representatives, heirs and assignees of the entire interest therein; and the undersigned of myself all representatives, heirs and assignees or their session of the entire interest to said assignees or their whose all facts known to the undersigned respecting said inventions, whenever requested, to testify in ences or other legal proceedings in which any of said applications or patents may become involved, systil papers, make all rightfut pains, and to do generally everything necessary to assist assignees, satignees, assigns and nominees to obtain patent protection for said inventions in the United States and authies, the expenses incident to said applications to be borne and paid by said assignees.	
made or en	igned hereby covenants that no assignment, sale, agreement or encumbrance has been or will be tered into which would conflict with this assignment.	
are believed	nts made herein of my own knowledge are true, all statements made herein on information and belief If to be true, and further that these statements were made with the knowledge that willful false and the like are punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) oth, and may leopardize the validity of the application or any patent issuing thereon.	
IEGAL NAI	ME OF INVENTOR	
Inventor:	Takanori Nakamura Date: November 12, 2015	
Signature:	Jahanni Nakamura	

AFDOCS/12567862.1

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN	
	APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT
Title of Invention	TEMPERATURE DETECTING DEVICE
As the belo	w named inventor, I declare that:
This declar	etion is directed to:
	X) The attached application, or
	United States application or PCT international application number filed on
The above-	dentified application was made or authorized to be made by me.
I believe tha	at I am the original inventor or an original joint inventor of a claimed invention in the application.
I have revie	wed and understand the contents of the above-identified application, including the claims.
me to be ma material info	ige the duty to disclose to the United States Patent and Trademark Office all information known to aterial to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, ormation which became available between the filing date of the prior application and the national or atlonal filing date of the continuation-in-part application.
assignor, he Higashikota having an a the entire risand/or claim applications rights of pris Patents and my legister executs and my legister executs and signam representation any interferito sign all is their successall other could be all of the could be all other could be all of the could be all other could be all o	or valuable consideration, the receipt and sufficiency of which is hereby acknowledged, 1. as preby sell, assign and set over to Murata Manufacturing Co., Ltd., heving an address at 10-1, in 1-chome, Nagaokakyo-shi, Kyoto-fu 617-8555, Japan; and Deihatau Diesei Mfg. Co., Ltd., ddress at 1-30, Oyodonaka, 1-chome, Kita-ku, Osaka-shi, Osaka 531-0076 Japan; as assignees, ght, title and interest for the United States and all other countries in and to all inventions disclosed and in the above-identified application, all original, divisional, continuation, substitute or reissue and patents applied for or granted therefor in the United States and all other countries, including all prity from the filing of said application, and all rights for past infringement, and the Commissioner of a Trademarks is hereby authorized and requested to issue all patents on said inventions or resulting to said assignees herein, as assignees of the entire interest therein; and the undersigned for myself as representatives, heirs and assigns do hereby agree and covernant without further remuneration, to it deliver all divisional, continuation, relasue and other applications for Patent on said inventions and tents thereof to said assignees or their sassigns, to communicate to said assignees or their interest known to the undersigned respecting said inventions, whenever requested, to testify interest or other legal proceedings in which any of said applications or patents may become involved, wiful papers, make all rightful oaths, and to do generally everything necessary to assist assignees, assors, assigns and nominees to obtain patent protection for said inventions in the United States and untries, the expenses incident to said applications to be borne and paid by said assignees.
made or ent	tered into which would conflict with this assignment.
are believed	nts made harein of my own knowledge are true, all statements made herein on information and belief it to be true, and further that these statements were made with the knowledge that willful false and the like are punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) ith, and may jeopardize the validity of the application or any patent issuing thereon.
LEGAL NAM	ME OF INVENTOR
Inventor:	Masaru Mochizuki Date: December 2, 2015
Signature:	Masaru Mockerahi

APDOC8/12567153.1

	APPLICATION DATA SHEET (3	TY OR DESIGN APPLICATION USING AN 7 CFR 1.76) AND ASSIGNMENT
Title of nvention	TEMPERATURE DETECTING DEVICE	
As the balo	w named inventor, I declare that:	
This declar	ation is directed to:	
:	X The attached application, or	
	United States application or PCT Internat	ional application number
The above	identified application was made or authorize	d to be made by me.
I believe th	at I am the original inventor or an original join	it inventor of a claimed invention in the application.
I have revis	ewed and understand the contents of the abo	ve-identified application, including the claims.
me to be m	atenal to natentability as defined in 37 CFR :	Patent and Trademark Office all information known to 1.56, including for continuation-in-part applications, ne filing date of the prior application and the national or application.
assignor, h Higashikoti having an a the entire r and/or clair application rights of pr Patents an therefrom t and my leg execute an all assignm representa any interfer to sign all t their succe all other co	ereby sell, assign and set over to Murata Ma- ari 1-chome, Nagadkakyo-shi, Kyoto-fu 617-8- tiddress at 1-30, Oyodonaka, 1-chome, Kita- tiddress at the estate application, all or s and patents applied for or granted therefor lonly from the filing of said application, and a d Trademarks is hereby authorized and requ- o said assigness herein, as assigness of the all representatives, heirs and assigness of the all representatives, heirs and assignes of the all representatives, heirs and assigness or theirs assig- tivers all facts known to the undersigned resp- rences or other legal preceedings in which er awfur papers, make all rightful caths, and to assors, assigns and nominees to obtain paten untries, the expenses incident to said applica- stanted hereby coveriants that no assignment,	fficiency of which is hereby acknowledged, I, as inufacturing Co., Ltd., having an address at 10-1, 1555. Japan; and Dathatsu Diesel Mfg. Co., Ltd., ut, Osaka-shi, Osaka-531-0076 Japan, as assignees, ad all other countries in and to all inventions disclosed iginal, divisional, continuation, substitute or reissue in the United States and all other countries, including all rights for past infringement, and the Commissioner of ested to issue all patents on said inventions or resulting entire interest therein; and the undersigned for myself oby agree and covenant without further remuneration, to and other applications for Patent on said inventions and gra, to communicate to said assignees or their acting said inventions, whenever requested, to testify in my of said applications or patents may become involved, as generally everything necessary to assist assignees. It protection for said inventions in the United States and alions to be borne and paid by said assignees.
made or er	itered into which would conflict with this assig	gament.
are believe	d to be true, and further that these statement	ue, all statements made herein on information and belief ts were made with the knowledge that willful false 1001 by fine or imprisonment of not more than five (5) plication or any patent issuing thereon.
LEGAL NA	ME OF INVENTOR	

AFDOCS/12567895.1

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT	
Title of Invention	TEMPERATURE DETECTING DEVICE
As the box	w named inventor, I deciare that
This declar	ation is directed to:
	X The attached application, or
	United States application or PCT international application number filed on
The above	identified application was made or authorized to be made by me.
I believe th	at I am the original inventor or an original joint inventor of a claimed invention in the application.
I have revie	ewed and understand the contents of the above-Identified application, including the claims.
me to be m material inf	dge the duty to disclose to the United States Patent and Trademark Office all information known to aterial to patentability as defined in 37 CFR 1,58, including for continuation-in-part applications, ormation which became available between the filing date of the prior application and the national or ational filing date of the continuation-in-part application.
assignor, h Higashikota having an a the entire it and/or clair application rights of pri Patents an therefrom t and my leg execute an all assignm represents any interfer to sign all it their succe all other co	and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I. as a preby sell, assign and set over to Murata Manufacturing Co., Ltd., having an address at 10-1, and 1-chome, Negarokakyo-shi, Kyoto-fu 617-6555, Japan, and Dathatsu Diesel Mfg. Co., Ltd., address at 1-30. Oyodonaka, 1-chome, Kita-ku, Osaka-shi, Osaka 531-0076 Japan; as assignees, address and interest for the United States and all other countries in and to all inventions disclosed med in the above-identified application, all original, divisional, continuation, substitute or relisate is and patents applied for or granted therefor in the United States and all other countries, including all ority from the filling of said application, and all rights for past infringement, and the Commissionar of diffrademarks is hereby authorized and requested to issue all patents on said inventions or resulting all representatives, heirs and assignees of the entire interest therein; and the undersigned for myself all representatives, heirs and assigns do hereby agree and covenant without further remuneration, to deliver all divisional, confinuation, reissue and other applications for Patent on said inventions and ents thereof to said assignees or theirs assigns, to communicate to said assignees or their lives all facts known to the undersigned respecting said inventions, whenever requested, to testify in ences or other legal proceedings in which any of said applications or patents may become involved, saful papers, make all rightful oaths, and to do generally everything necessary to assist assignees, soors, assigns and nominees to obtain patent protection for said inventions in the United States and untries, the expenses incident to said applications to be borne and paid by said assignees.
The unders	igned hereby covenants that no assignment, sale, agreement or encumbrance has been or will be tered into which would conflict with this assignment.
are believe	ons made herein of my own knowledge are true, all statements made herein on information and belief of to be true, and further that these statements were made with the knowledge that willful false and the like are punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) oth, and may jeopardize the validity of the application or any patent issuing thereon.
LEGAL NA	ME OF INVENTOR
Inventor:	Junya Chujo Date: December 2, 2015
Signature:	<u>Childy</u>

AFDOCS/12567901.1

**RECORDED: 12/14/2015** 

PATENT REEL: 037284 FRAME: 0194