03/31/2017 504300803

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4347484

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
TAKASHI KONDO	03/02/2017
MASARU BANJU	03/02/2017
SEIICHI MATSUMOTO	02/24/2017
SEIJI KAMBA	03/30/2017
WATARU YAMAMOTO	03/02/2017
YOSHIJI OKAMOTO	03/03/2017

RECEIVING PARTY DATA

Name:	MURATA MANUFACTURING CO., LTD.
Street Address:	10-1, HIGASHIKOTARI 1-CHOME
City:	NAGAOKAKYO-SHI, KYOTO-FU
State/Country:	JAPAN
Postal Code:	617-8555

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15475804

CORRESPONDENCE DATA

Fax Number: (212)484-3990

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: 212-484-3900

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

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

Address Line 4: NEW YORK, NEW YORK 10019

ATTORNEY DOCKET NUMBER:	036433.03748
NAME OF SUBMITTER:	INGA HILDRETH
SIGNATURE:	/ih/
DATE SIGNED:	03/31/2017
	This document serves as an Oath/Declaration (37 CFR 1.63).

PATENT REEL: 041811 FRAME: 0335

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Total Attachments: 6source=036433_03748_executed_declarations#page1.tif source=036433_03748_executed_declarations#page2.tif source=036433_03748_executed_declarations#page3.tif source=036433_03748_executed_declarations#page4.tif source=036433_03748_executed_declarations#page5.tif

source=036433_03748_executed_declarations#page6.tif

PATENT REEL: 041811 FRAME: 0336

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT Title of FILTRATION FILTER Invention As the below named inventor, I declare that: This declaration 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 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 to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT International filing date of the continuation-in-part application. For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I, as assignor, hereby sell, assign and set over to Murata Manufacturing Co., Ltd., having an address at 10-1, Higashikotari 1-chome, Nagaokakyo-shi, Kyoto-fu 617-8555, Japan, as assignee, the entire right, title and interest for the United States and all other countries in and to all inventions disclosed and/or claimed in the above-identified application, all original, divisional, continuation, substitute or reissue applications and patents applied for or granted therefor in the United States and all other countries, including all rights of priority from the filing of said application, and all rights for past infringement, and the Commissioner of Patents and Trademarks is hereby authorized and requested to issue all patents on said inventions or resulting there from to said assignee herein, as assignee of the entire interest therein; and the undersigned for myself and my legal representatives, heirs and assigns do hereby agree and covenant without further remuneration, to execute and deliver all divisional, continuation, reissue and other applications for Patent on said inventions and all assignments thereof to said assignee or its assigns, to communicate to said assignee or its representatives all facts known to the undersigned respecting said inventions, whenever requested, to testify in any interferences or other legal proceedings in which any of said applications or patents may become involved, to sign all lawful papers, make all rightful paths, and to do generally everything necessary to assist assignee, its successors, assigns and nominees to obtain patent protection for said inventions in the United States and all other countries, the expenses incident to said applications to be borne and paid by said assignee. 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. All statements made herein of my/our own knowledge are true, all statements made herein on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like are punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both, and may jeopardize the validity of the application or any patent issuing thereon. LEGAL NAME OF INVENTOR Date: 2 March Takashi Kondo Inventor: **Signature:

** An electronic S-signature is permitted. The S-signature must consist only of letters, or Arabic numerals, or both, with appropriate spaces and commas, periods, apostrophes, or hyphens for punctuation, and the person signing the correspondence must insert his or her own S-signature with a first single forward slash mark before and a second single forward slash mark after the S-signature (e.g., /IDr. James T. Jones, Jr./).

	DECL	ARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT
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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 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 to the United States Patent and Trademark Office all information known to me to be material to patentiality as defined in 37 CFR 1.55, including for continuation-in-part applications, material information which became available between the filling date of the prior application and the national or PCT International filing date of the continuation-in-part applications. For good and valuable consideration, the receipt and sufficiency of which is hereby scknowledged, I, as assignor, hereby self, assign and set over to Murata Manufacturing Co., Ltd., having an address at 10-1, Higashikotart 1-chome, Nagadxakyo-shi, kyoso-bi, 617-8555, Japan, as assignee, the entire right, title and interest for the United States and all other countries in and to all inventions disclosed and/or charmed in the above-identified application, all original, within and or priority from the filing of said application, and all rights for past infringement, and the Commissional Patents and herein, as assignee of the entire interest therein; and the undersigned for myself and my legal representatives, heirs and herein, as assignee of the entire interest therein; and the undersigned for myself and my legal representatives, heirs and herein, as assignee of the entire interest therein; and the undersigned for myself and my legal representatives, heirs and herein, as assignee of the entire interest therein; and the undersigned for myself and my legal representatives, heirs and herein as assignee of the entire interest therein; and the undersigned for myself and my legal representatives, heirs and herein as assignee or its assigns, to the patentine	As the below	v named inventor, I declare that:
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Inventor: Masaru Banju Date: 2 March 2017	believed to be are punishable	a true, and further that these statements were made with the knowledge that Wilhui faste statements and the like is under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both, and may jeopardize the
N/ Os	LEGAL NAM	ME OF INVENTOR
**Signature: Masaru Banju	Inventor:	Masaru Banju Date: 2 March 2017
	**Signature:	Masaru Banju

** An electronic S-signature is permitted. The S-signature must consist only of letters, or Arabic numerals, or both, with appropriate spaces and commas, periods, apostrophes, or hyphens for punctuation, and the person signing the correspondence must insect his or her own S-signature with a first single forward slash mark before and a second single forward slash mark after the S-signature (e.g., /Dr. James T. Jones, Jr./).

DEC	LARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT
Title of Invention	FILTRATION FILTER
As the belo	v named inventor, I declare that:
This declar is directed t	
	United States application or PCT international application number
	filed on
The above-ld	entified application was made or authorized to be made by me.
	I am the original inventor or an original joint inventor of a claimed invention in the application.
I have review	ed and understand the contents of the above-identified application, including the claims.
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assign and si Kyoto-fu \$17: all Inventions reissue applii- of priority fror Trademarks I herein, as as assigns do he and other ap- communicate requested, to involved, to a successors.	valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I, as assignor, hereby sell, at over to Murata Manufacturing Co., Ltd., having an address at 10-1, Higashikotari 1-chome, Nagaokakyo-shi, 8555, Japan, as assignee, the entire right, title and interest for the United States and all other countries in and to disclosed and/or claimed in the above-identified application, all original, divisional, continuation, substitute or cations and patents applied for or granted therefor in the United States and all other countries, including all rights in the filing of said application, and all rights for past infringement, and the Commissioner of Patents and is hereby authorized and requested to issue all patents on said inventions or resulting there from to said assignee signee of the entire interest therein; and the undersigned for myself and my legal representatives, heirs and breeby agree and coverant without further remuneration, to execute and deliver all divisional, continuation, reissue objections for Patent on said inventions and all assignments thereof to said assignee or its assigns, to to said assignee or its expresentatives all facts known to the undersigned respecting said inventions, whenever testify in any interferences or other legal proceedings in which any of said applications or patents may become light all lawful papers, make all rightful patent, and to do generally everything necessary to assist assignee, its assigns and nominees to obtain patent protection for said inventions in the United States and all other countries, incident to said applications to be borne and paid by said assignee.
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believed to bare grants	s made herein of my/our own knowledge are true, all statements made herein on information and belief are a true, and further that these statements were made with the knowledge that willful faise statements and the like lie under 18 U.S.C. 1901 by fine or imprisonment of not more than five (5) years, or both, and may jeopardize the application or any patent issuing thereon.
LEGAL NA	ME OF INVENTOR
Inventor:	Selichi Matsumoto Date: February 24, 2017
**Signature	Seirch Motsumoto
	The College of Control of Letters or Arabic numerals or both with appropriate

** An electronic S-signature is permitted. The S-signature must consist only of letters, or Arabic numerals, or both, with appropriate spaces and commas, periods, apostrophes, or hyphens for punctuation, and the person signing the correspondence must insert his or her own S-signature with a first single forward slash mark before and a second single forward slash mark after the S-signature (e.g., /Dr. James T. Jones, Jr./).

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT Title of FILTRATION FILTER Invention As the below named inventor, I declare that: This declaration 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 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 to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR 1.58, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or POT international filing date of the continuation-in-part application. For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I, as assignor, hereby sell, assign and set over to Murata Manufacturing Co., Ltd., having an address at 10-1, Higashikotari 1-chome, Nagaokakyo-shi, Kyoto-fu 617-6555, Japan, as assignee, the entire right, title and interest for the United States and all other countries in and to all inventions disclosed and/or claimed in the above-identified application, all original, divisional, continuation, substitute or reissue applications and patents applied for or granted therefor in the United States and all other countries, including all rights of priority from the filing of said application, and all rights for past infringement, and the Commissioner of Patents and Trademarks is hereby authorized and requested to issue all patents on said inventions or resulting there from to said assignee herein, as assignee of the entire interest therein; and the undersigned for myself and my legal representatives, heirs and assigns do hereby agree and covenant without further remuneration, to execute and deliver all divisional, continuation, reissue and other applications for Patent on said inventions and all assignments thereof to said assignee or its assigns, to communicate to said assignse or its representatives all facts known to the undersigned respecting said inventions, whenever requested, to testify in any interferences or other legal proceedings in which any of said applications or patents may become involved, to sign all lawful papers, make all rightful oaths, and to do generally everything necessary to assist assignee, its successors, assigns and nominees to obtain patent protection for said inventions in the United States and all other countries, the expenses incident to said applications to be borne and paid by said assignee. 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. All statements made herein of my/our own knowledge are true, all statements made herein on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like are punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both, and may jeopardize the validity of the application or any patent issuing thereon. LEGAL NAME OF INVENTOR Seiji Kamba Inventor: <u>Sejji</u> Kabha

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Title of FILT	RATION FILTER
As the below nam	ned inventor, I declare that:
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assign and set over Kyoto-fu 617-8555, all inventions disclo- reissue applications of prignity from the findermarks is here harein, as assigned assigns do hereby a and other application communicate to sai requested, to testify involved, to sign all successors, assign the expenses incide	to Murata Manufacturing Co., Ltd., having an address at 10-1, Higashikotari 1-chome, Nagaokakyo-shi, Japari, as assignee, the entire right, title and interest for the United States and all other countries in and to sed and/or claimed in the above-identified application, all original, divisional, continuation, substitute or and patents applied for or granted therefor in the United States and all other countries, including all rights and patents application, and all rights of past infringement, and the Commissioner of Patents and by authorized and requested to issue all patents on said inventions or resulting there from to said assignee of the entire interest therein; and the undersigned for myself and my legal representatives, heirs and agree and coverant without further remaineration, to execute and deliver all divisional, continuation, reissue as for Patent on said inventions and all assignments thereof to said assignee or its assigns, to dissignee or its representatives all facts known to the undersigned respecting said inventions, whenever in any interferences or other legal proceedings in which any of said applications or patents may become lewful papers, make all rightful oaths, and to do generally everything necessary to assist assignee, its and nominees to obtain patent protection for said inventions in the United States and all other countries, and to assignee.
entered into which v	ereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or would conflict with this assignment.
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LEGAL NAME OF	INVENTOR
Inventor:	Wataru Yamamoto Date: March 2, 2017
**Signature:	Wataru. Yamamoto

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I believe that	I am the original inventor or an original joint inventor of a claimed invention in the application.
	ed and understand the contents of the above-identified application, including the claims.
material to pa became avail	e the duty to disclose to the United States Patent and Trademark Office all information known to me to be itentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which able between the filing date of the prior application and the national or PCT International filing date of the n-part application.
assign and se Kyoto-fu 617- all inventions reissue applic of priority from Trademarks I herein, as ast assigns do he and other app communicate requested, to involved, to s successors, a the expenses	valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I, as assignor, hereby sell, at over to Murata Manufacturing Co., Ltd., having an address at 10-1, Higashikotari 1-chome, Nagaokakyo-shi, 8555, Japan, as assignee, the entire right, title and interest for the United States and all other countries in and to disclosed and/or claimed in the above-identified application, all original, divisional, continuation, substitute or rations and patents applied for or granted therefor in the United States and all other countries, including all rights in the filing of said application, and all rights for past intringement, and the Commissioner of Patents and a hereby authorized and requested to issue all patents on said inventions or resulting there from to said assignee of the entire interest therein; and the undersigned for myself and my legal representatives, hairs and streety agree and covernant without further remuneration, to execute and deliver all divisional, continuation, reissue oblications for Patent on said inventions and all assignments thereof to said assignee or its assigns, to to said assignee or its representatives all facts known to the undersigned respecting said inventions, whenever testify in any interferences or other legal proceedings in which any of said applications or patents may become ign all lawful papers, make all rightful caths, and to do generally everything necessary to assist assignee, its incident to said applications to be home and paid by said assignee.
entered into v	ned hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or which would conflict with this assignment.
believed to be are punishab	s made herein of my/our own knowledge are true, all statements made herein on information and belief are e true, and further that these statements were made with the knowledge that wiliful false statements and the like ie under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both, and may jeopardize the application or any patent issuing thereon.
LEGAL NAM	ME OF INVENTOR
Inventor	Yoshiji Okamoto Date : March3, 2017
**Signature:	<u>Yoshiji Okamoto</u>

** An electronic S-signature is permitted. The S-signature must consist only of letters, or Arabic numerals, or both, with appropriate spaces and commas, periods, apostrophes, or hyphens for punctuation, and the person signing the companionate must insert his or her own S-signature with a first single forward slash mark before and a second single forward slash mark after the S-signature (a.g., /Dr. James T. Jones, Jr./).

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