505896619 02/03/2020

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
MOTOJI TSUDA	12/17/2019
TAKANORI UEJIMA	12/17/2019
YUJI TAKEMATSU	12/18/2019
KATSUNARI KATSUNARI	12/17/2019
MASAHIDE TAKEBE	12/17/2019
SHOU MATSUMOTO	12/23/2019
NAOYA MATSUMOTO	12/18/2019
YUTAKA SASAKI	12/18/2019
YUUKI FUKUDA	12/20/2019

RECEIVING PARTY DATA

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

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16780087

CORRESPONDENCE DATA

Fax Number: (216)579-6073

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.

using a lax number, if provided, if that is unsuccessful, it will be sent via 05 mail

Phone: 216-579-1700

Email:kfreeman@pearne.comCorrespondent Name:PEARNE & GORDON LLPAddress Line 1:1801 EAST 9TH STREET

Address Line 2: SUITE 1200

Address Line 4: CLEVELAND, OHIO 44114-3108

ATTORNEY DOCKET NUMBER:	MURATA-61836
NAME OF SUBMITTER:	AARON A. FISHMAN

505896619 REEL: 051702 FRAME: 0774

SIGNATURE: /Aaron A. Fishman/		
DATE SIGNED:	02/03/2020	
Total Attachments: 8		_
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PATENT REEL: 051702 FRAME: 0775

DECLARATION AND ASSIGNMENT FOR US UTILITY OR DESIGN PATENT APPLICATION

Attorney Docket No.: MURATA-61836

As a below-named inventor, I hereby declare that:

this declaration is directed to the application entitled:

HIGH-FREQUENCY MODULE AND COMMUNICATION APPARATUS

	THE TAXABLE PROPERTY OF THE PR
(check	only one item below)
[X]	attached hereto,
OR	
[]	filed on (YYYY/MM/DD) as United States Application Number or
	PCT International Application Number
The ab	ove-identified application was made or authorized to be made by me.
	ve I am the original inventor or an original joint inventor of a claimed invention in the identified application.
	by acknowledge that any willful false statement made in this declaration is punishable 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

WHEREAS, new and useful improvements have been made by the undersigned as described in the above-identified application.

WHEREAS, Murata Manufacturing Co., Ltd. having a place of business at 10-1, Higashikotari 1-chome, Nagaokakyo-shi, Kyoto, 617-8555, Japan, hereafter referred to as "assignee", is desirous of acquiring all right, title, and interest throughout the world in, to, and under said improvements and inventions and patent rights therefor.

NOW, THEREFORE, be it known that, for valuable consideration, the receipt and sufficiency of which are hereby acknowledged, all right, title, and interest, in the United States and throughout the world, in, to and under said improvements and inventions and all patents, patent applications, patent rights, and inventors' certificates thereof, therefor, and therein, including without limitation said application for patent in the United States, all divisions and continuations thereof, all patents which may be granted thereon, all reissues and extensions thereof, all right to sue for past infringement thereunder, all patents which may be granted for said improvements and inventions by states or nations other than the United States, or by other authority, entity, or organization, and all applications therefor, have been and are hereby sold, assigned, transferred, and delivered unto assignee, its successors and assigns by the undersigned; and it is covenanted and agreed by the undersigned, and for

executors, administrators, and legal representatives of the undersigned, that at assignee's request any and all applications, affidavits, assignments, and other instruments will be made, executed, and delivered as may be necessary, or desirable to secure for or vest in assignee, its successors or assigns, any improvement, inventions, right, title, interest, application, patent, patent right or other right or property covered by this assignment, and the Director of the United States Patent and Trademark Office is hereby requested and authorized to issue any and all United States patents granted on any of said applications to assignee as owner of the entire right, title, and interest in, to, and under the same, and appropriately empowered officials of foreign countries are hereby authorized to issue any letters patent granted on any of said applications to assignee as owner of the entire right, title and interest in, to, and under the same.

IN WITNESS WHEREOF, this declaration and assignment has been executed below by the undersigned:

Legal Na	me of Inventor: _	Motoji TSUDA	
Signature	of Inventor:	Motoji TSUDA	
Date:	December	17, 2019	_

[X] Signatures of additional inventors on attached sheet(s)

Notice to Inventor(s): A person may not execute this declaration unless that person has reviewed and understands the contents of the above-identified application, including the claims.

Notice to Inventor(s): A person may not execute this declaration unless that person is aware of the duty to disclose to the US Patent and Trademark Office all information known to the person to be material to patentability as defined in 37 CFR 1.56.

Additional Inventor(s)

Legal Name of Inventor: <u>Takanori UEJIMA</u>		
Signature of Inventor: Takanori Uejima		
Date: December 17, 2019		
Legal Name of Inventor: Yuji TAKEMATSU		
Signature of Inventor: /www. Takematan		
Signature of Inventor: /yiv Jakematan Date: Pecember 18, 2019		
Legal Name of Inventor: <u>Katsunari NAKAZAWA</u>		
Signature of Inventor: Katsunari Nakazawa		
Date: December 17.2019		
Legal Name of Inventor: <u>Masahide TAKEBE</u>		
Signature of Inventor: Masalide Talcebe		
Date: December 17, 2019		
Legal Name of Inventor: Shou MATSUMOTO		
Signature of Inventor:		
Date:		

Legal Name of Inventor: <u>Naoya MATSUMOTO</u>
Signature of Inventor: Nagy Matsumoto
Date:
Legal Name of Inventor:Yutaka SASAKI
Signature of Inventor: Yutaku Sasah
Date: December, 18, 2019
Legal Name of Inventor:Yuuki FUKUDA
Signature of Inventor: Tuyki Fukuda
Date: De cou del 20 2019

DECLARATION AND ASSIGNMENT FOR US UTILITY OR DESIGN PATENT APPLICATION

Attorney Docket No.: MURATA-61836

As a below-named inventor, I hereby declare that:

this declaration is directed to the application entitled:

HIGH-FREQUENCY MODULE AND COMMUNICATION APPARATUS

(check	conly one item below)
[X]	attached hereto,
OR	
[]	filed on (YYYY/MM/DD) as United States Application Number or
	PCT International Application Number
The ab	pove-identified application was made or authorized to be made by me.
	ve I am the original inventor or an original joint inventor of a claimed invention in the identified application.
	by acknowledge that any willful false statement made in this declaration is punishable 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.
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NOW, THEREFORE, be it known that, for valuable consideration, the receipt and sufficiency of which are hereby acknowledged, all right, title, and interest, in the United States and throughout the world, in, to and under said improvements and inventions and all patents, patent applications, patent rights, and inventors' certificates thereof, therefor, and therein, including without limitation said application for patent in the United States, all divisions and continuations thereof, all patents which may be granted thereon, all reissues and extensions thereof, all right to sue for past infringement thereunder, all patents which may be granted for said improvements and inventions by states or nations other than the United States, or by other authority, entity, or organization, and all applications therefor, have been and are hereby sold, assigned, transferred, and delivered unto assignee, its successors and assigns by the undersigned; and it is covenanted and agreed by the undersigned, and for

executors, administrators, and legal representatives of the undersigned, that at assignee's request any and all applications, affidavits, assignments, and other instruments will be made, executed, and delivered as may be necessary, or desirable to secure for or vest in assignee, its successors or assigns, any improvement, inventions, right, title, interest, application, patent, patent right or other right or property covered by this assignment, and the Director of the United States Patent and Trademark Office is hereby requested and authorized to issue any and all United States patents granted on any of said applications to assignee as owner of the entire right, title, and interest in, to, and under the same, and appropriately empowered officials of foreign countries are hereby authorized to issue any letters patent granted on any of said applications to assignee as owner of the entire right, title and interest in, to, and under the same.

IN WITNESS WHEREOF, this declaration and assignment has been executed below by the undersigned:

Legal Name of Inventor:	Motoji TSUDA
Signature of Inventor:	
Date:	
[X] Signatures of addition	nal inventors on attached sheet(s)

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Additional Inventor(s)

Legal Name of Inventor:	Takanori UEJIMA
Signature of Inventor:	
Date:	
Legal Name of Inventor: _	Yuji TAKEMATSU
Signature of Inventor:	
Date:	
Legal Name of Inventor:	Katsunari NAKAZAWA
Signature of Inventor:	
Date:	
Legal Name of Inventor: _	Masahide TAKEBE
Signature of Inventor:	
Date:	
Legal Name of Inventor:	Shou MATSUMOTO
Signature of Inventor:	Show Matsumoto
Date: December 2	3, 2019

Legal Name of Inventor:	Naoya MATSUMOTO
Signature of Inventor:	
Date:	
Legal Name of Inventor:	Yutaka SASAKI
Signature of Inventor:	
Date:	
Legal Name of Inventor:	Yuuki FUKUDA
Signature of Inventor:	
Date:	