11/27/2018 505205538

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
YASUTAKA KURODA	10/03/2018
NORIAKI SUMITA	10/03/2018
TAKASHI ISHIKAWA	10/03/2018
TOMOHIKO OOHASHI	10/03/2018
KAZUKI KISHI	10/03/2018

RECEIVING PARTY DATA

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City:	TOKYO
State/Country:	JAPAN
Postal Code:	183-8501

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16304726

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	J-18-0199	
NAME OF SUBMITTER:	DEANNA THOMAS, SECRETARY	
SIGNATURE:	/Deanna Thomas/	
DATE SIGNED: 11/27/2018		
	This document serves as an Oath/Declaration (37 CFR 1.63).	

PATENT

REEL: 047588 FRAME: 0065 505205538

Total Attachments: 4

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PATENT REEL: 047588 FRAME: 0066

Docket No.: Only After Sept. 16, 2012

ASSIGNMENT WITH DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63)

Whereas, I/we, the undersigned inventor(s) hereinafter called assignor(s), have invented certain improvements described in the application identified below; (the "invention") and

Whereas, NEC Network and Sensor Systems, Ltd., 10, Nisshin-cho 1-chome, Fuchu-shi, Tokyo 183-8501, Japan, (assignee), desires to acquire the entire and exclusive right, title, and interest in the application and invention, and to any patents that may be obtained therefor in the United States, in any U.S. territorial possessions, and in any and all foreign countries;

Now therefore, for valuable consideration, receipt whereof is hereby acknowledged,

I/we, the above named assignor(s), hereby sell, assign and transfer to the above named assignee, its successors and assigns, the entire and exclusive right, title and interest in the application and the invention disclosed therein for the United States, U.S. territorial possessions, and in any and all foreign countries, including all divisions, and continuations, and continuations-in-part thereof, and all Letters Patent of the United States that may be granted thereon, and all reissues and reexaminations, renewals, and substitutions thereof, and including the right to claim priority under 35 U.S.C. §119, and all rights for past infringement, under the International Convention, and under any other relevant International Treaties and Arrangements, and I/we request the Director of the U.S. Patent and Trademark Office to issue any Letters Patent granted upon the invention set forth in the application to the assignee, its successors and assigns; I/we will execute without further consideration all papers deemed necessary by the assignee, and generally perform all necessary acts to aid the assignee, its successors and assigns, to obtain and enforce proper protection for the invention in connection with the United States and foreign applications, including but not limited to all divisional, continuation, reissue and other applications for Letters Patent on the invention and execute all assignments thereof to the above named assignee its successors and assigns, when called upon to do so by the assignee; and I/we will communicate to the above named assignee or its representatives all facts known to the undersigned respecting the invention, whenever requested, testify in any legal proceedings in which any of the applications or patents may become involved, and do generally everything necessary to assist the above named assignee its successors or assigns to obtain patent protection for the invention in the United States and foreign countries.

(Legalization not required for recording but is prima facie evidence of execution under 35 U.S.C. §261)

As the below named inventor, I hereb	y declar	re that:
This assignment with declaration is directed to:		The attached application, or
	Ø	United States Application or PCT International Application Number <u>PCT/JP2017/019907</u> filed on <u>May 29, 2017</u> (Confirmation No).
The application is entitled:		
7.73.10.4.75	A B ATOY TO	CVING BEVICE INBUTCIGNAL SUBBLIVING METHOD AND

ORIGIN AVOIDING CIRCUIT USED THEREIN

The above identified application was made or was 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 application for which this assignment with declaration is being submitted, including the claims.

I am aware of the duty to disclose to the U.S Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR 1.56.

I hereby acknowledge that any willful false statement made in this assignment with declaration is punishable under 18 USC 1001 by fine or imprisonment of not more than five (5) years, or both.

Authorization To Permit Access To Application by Participating Office

☐ If checked, the undersigned hereby grants the USPTO authority to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the World Intellectual Property Office (WIPO), and any other intellectual property offices in which a foreign application claiming priority to the above-identified application is filed access to the above-identified patent application. See 37 CFR 1.14(c) and (h). This box should not be checked if the applicant does not wish the EPO, JPO, KIPO, or other intellectual property office in which a foreign application claiming priority to the above-identified application is filed to have access to the application.

In accordance with 37 CFR 1.14(h)(3), access will be provided to a copy of the application-as-filed with respect to: 1) the above-identified patent application-as-filed, 2) any foreign application to which the above-identified application claims priority under 35 USC 119(a)-(d) if a copy of the foreign application that satisfies the certified copy requirement of 37 CFR 1.55 has been filed in the above-identified patent application, and 3) any U.S. application-as-filed from which benefit is sought in the above-identified patent application.

In accordance with 37 CFR 1.14(c), access may be provided to information concerning the date of filing the Authorization to Permit Access to Application by Participating Office.

REEL: 047588 FRAME: 0067

NAME OF SOLE OR FIRST INVENTOR:				
Given Name				
(first and middle [if any]) Yasutaka	Family Name or Surname KURODA			
Inventor's signature Yasutaka Kuroda	Date October 3, 2018			
Residence: Tokyo, Japan				
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NAME OF SECOND INVENTOR:	<u> </u>			
Given Name (first and middle [if any]) Noriaki	Family Name or Surname SUMITA			
Inventor's signature Nociaki Sumita	Date October 3, 2018			
Residence: Tokyo, Japan				
Mailing Address: c/o NEC Network and Sensor Systems, Ltd., 10, Nisshin-cho 1-chome, Fuchu-shi, Tokyo 183-8501, Japan				
NAME OF THIRD INVENTOR:	1			
Given Name (first and middle [if any]) Takashi	Family Name or Surname ISHIKAWA			
Inventor's signature Jakushi Ushika	wa Date October 3, 2018			
Residence: Tokyo, Japan				
Mailing Address: c/o NEC Network and Sensor Systems, Ltd., 10, Niss	hin-cho 1-chome, Fuchu-shi, Tokyo 183-8501, Japan			
NAME OF FOURTH INVENTOR:				
Given Name	Family Name or Surname OOHASHI			
Inventor's signature	Date			
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Mailing Address: c/o Shin Nihon Denshi Co., LTD, 6-18-7, Naruse, Machida-shi, Tokyo 194-0044, Japan				
NAME OF FIFTH INVENTOR:				
Given Name	Family Name or Surname KISHI			
Inventor's signature	Date			
Residence: Tokyo, Japan Mailing				
Address: c/o Shin Nihon Denshi Co., LTD, 6-18-7, Naruse, Machida-shi, Tokyo 194-0044, Japan				

PATENT REEL: 047588 FRAME: 0068

Docket No.: Only After Sept. 16, 2012

ASSIGNMENT WITH DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63)

Whereas, I/we, the undersigned inventor(s) hereinafter called assignor(s), have invented certain improvements described in the application identified below; (the "invention") and

Whereas, NEC Network and Sensor Systems, Ltd., 10, Nisshin-cho 1-chome, Puchu-shi, Tokyo 183-8501, Japan, (assignee), desires to acquire the entire and exclusive right, title, and interest in the application and invention, and to any patents that may be obtained therefor in the United States, in any U.S. territorial possessions, and in any and all foreign countries;

Now therefore, for valuable consideration, receipt whereof is hereby acknowledged,

I/we, the above named assignor(s), hereby sell, assign and transfer to the above named assignee, its successors and assigns, the entire and exclusive right, title and interest in the application and the invention disclosed therein for the United States, U.S. territorial possessions, and in any and all foreign countries, including all divisions, and continuations, and continuations-in-part thereof, and all Letters Patent of the United States that may be granted thereon, and all reissues and reexaminations, renewals, and substitutions thereof, and including the right to claim priority under 35 U.S.C. §119, and all reissues and reexaminations, renewals, and substitutions thereof, and including the right to claim priority under 35 U.S.C. §119, and all rights for past infringement, under the International Convention, and under any other relevant International Treaties and Arrangements, and I/we request the Director of the U.S. Patent and Trademark Office to issue any Letters Patent granted upon the invention set forth in the application to the assignee, its successors and assigns; I/we will execute without further consideration all papers deemed necessary by the assignee, and generally perform all necessary acts to aid the assignee, its successors and assigns, to obtain and enforce proper protection for the invention in connection with the United States and foreign applications, including but not limited to all divisional, continuation, reissue and other applications for Letters Patent on the invention and execute all assignments thereof to the above named assignee its successors and assigns, when called upon to do so by the assignee; and I/we will communicate to the above named assignee or its representatives all facts known to the undersigned respecting the invention, whenever requested, testify in any legal proceedings in which any of the applications or patents may become involved, and do generally everything necessary to assist the above named assignee its successors or assigns to obtain patent protection for t

(Legalization not required for recording but is prima facile evidence of execution under 35 U.S.C. §261)

As the below named inventor, I hereby declare that:

This assignment with declaration is

United States Application or PCT International Application Number PCT/JP2017/019907 filed on May 29, 2017 (Confirmation No.______).

LINEAR AMPLIFYING DEVICE, INPUT SIGNAL SUPPLYING METHOD, AND ORIGIN AVOIDING CIRCUIT USED THEREIN

The above identified application was made or was 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 application for which this assignment with declaration is being submitted, including the claims.

I am aware of the duty to disclose to the U.S Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR 1.56.

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In accordance with 37 CFR 1.14(c), access may be provided to information concerning the date of filing the Authorization to Permit Access to Application by Participating Office.

PATENT

REEL: 047588 FRAME: 0069

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Given Name			
(first and middle [if any]) Yasutaka	Family Name or Surname KURODA		
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Inventor's signature	Date		
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Mailing Address: c/o NEC Network and Sensor Systems, Ltd., 10, Niss	hin-cho 1-chome, Fuchu-shi, Tokyo 183-8501, Japan		
NAME OF SECOND INVENTOR:			
Given Name			
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Inventor's signature	Date		
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Mailing Address: c/o NEC Network and Sensor Systems, Ltd., 10, Niss	hin-cho 1-chome, Fuchu-shi, Tokyo 183-8501, Japan		
NAME OF THIRD INVENTOR:	·		
Given Name (first and middle lif anyl) Takashi	Family Mana av Sustana ISLINV ANI A		
(first and middle [if any]) Takashi	Family Name or Surname ISHIKAWA		
Inventor's signature	Date		
Residence: Tokyo, Japan			
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Mailing Address: c/o NEC Network and Sensor Systems, Ltd., 10, Niss	nin-cno (-cnome, Fuchu-shi, Tokyo 183-8501), Japan		
NAME OF FOURTH INVENTOR:			
Given Name (first and middle [if any]) Tomohiko	Family Name or Surname OOHASHI		
Inventor's signature Tomo hiko OOHASH	I Date October 3, 2018		
Residence: Tokyo, Japan			
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Mailing Address: c/o Shin Nihon Denshi Co., LTD, 6-18-7, Naruse, Machida-shi, Tokyo 194-0044, Japan			
NAME OF FIFTH INVENTOR:			
Given Name			
	Family Name or Surname KISHI		
Inventor's signature Kazuki KISHI	Date October 3, 2018		
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Residence: Tokyo, Japan			
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