505785029 11/21/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5831857

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
TAKAHIRO NAKAGAWA	10/15/2019

RECEIVING PARTY DATA

Name:	NEC CORPORATION	
Street Address:	7-1, SHIBA 5-CHOME, MINATO-KU	
City:	TOKYO	
State/Country:	JAPAN	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16615441

CORRESPONDENCE DATA

Fax Number: (202)293-7860

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: 202-293-7060

Email: ggraham@sughrue.com, sughrue@sughrue.com

Correspondent Name: SUGHRUE MION, PLLC

Address Line 1: 2000 PENNSYLVANIA AVENUE, N.W.

Address Line 2: SUITE 900

Address Line 4: WASHINGTON, D.C. 20006

ATTORNEY DOCKET NUMBER:	Q251084
NAME OF SUBMITTER:	QIANA GRAHAM, NEW APPLICATIONS DEPT
SIGNATURE:	/ Qiana Graham/
DATE SIGNED:	11/21/2019

Total Attachments: 2

source=Q251084DeclarationandAssignmentexecuted#page1.tif source=Q251084DeclarationandAssignmentexecuted#page2.tif

PATENT 505785029 REEL: 051074 FRAME: 0416

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 Corporation, 7-1, Shiba 5-chome, Minato-ku, Tokyo, 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 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 reissues and five request 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, 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 t

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

This accomment with declaration is			dication or					
	6°74 3 1		19 of process a		47 .4 55	1 60000	1100000000000000	2000
	157 F1	nitad Ctataa Am	allocation on byter land	latownstianal A	antionitan Ni	umbar BCT	/managana	7077
	5 2 1 11	nited States An	mlication or PCT I	International A	antication N	umher PCT	/IP2018/02	7277
		nited States Ap	olication or PCT I	International A	polication N	umber PCT	/JP2018/02	2822
	⊠ U	nited States Ap	plication or PCT I	International A	pplication N	umber PCT	/JP2018/02	2822
		nited States Ap	plication or PCT I	International A	pplication N	umber PCT	/JP2018/02	2822
		nited States Ap	photostria i co	International A	pplication N	umber PCT	/JP2018/02	2822
		nited States Ap	photostria i co	ittemitantemiter a	pplication N	umber PCT	/JP2018/02	2822
	El.J.	nited States Ap	photostria i co	ittemitantemiter a	pplication N	umber PCT	/JP2018/02	2822
		nited States Ap	photostria i co	ittemitantemiter a	pplication N	umber PCT	/JP2018/02	2822
	filed on	nited States Ap June 15, 2018	(Confirmation N	ittemitantemiter a	pplication N	umber PCT	/JP2018/02	2822
	filed on	nited States Ap June 15, 2018	(Confirmation N	ittemitantemiter a	pplication N	umber PCT	/JP2018/02	2822
	filed on	nited States Ap June 15, 2018	(Confirmation N	ittemitantemiter a	pplication N	umber PCT	/JP2018/02	2822
	filed on	nited States Ap June 15, 2018	(Confirmation N	ittemitantemiter a	pplication N	umber PCT	/JP2018/02	2822
	filed on	nited States Ap June 15, 2018	(Confirmation N	ittemitantemiter a	pplication N	umber PCT	/JP2018/02	2822
	filed on	nited States Ap June 15, 2018	(Confirmation N	ittemitantemiter a	pplication N	umber PCT	/JP2018/02	2822
	filed on	nited States Ap June 15, 2018	(Confirmation N	ittemitantemiter a	pplication N	umber PCT	7JP2018/02	2822
	filed on	nited States Ap June 15, 2018	(Confirmation N	ittemitantemiter a	pplication N	umber PCT	/JP2018/02	2822

The application is entitled:

COOLING STRUCTURE, COOLING STRUCTURE MANUFACTURING METHOD, POWER AMPLIFIER, AND TRANSMITTER

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.

PATENT REEL: 051074 FRAME: 0417 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.

Given Name	
The state of the s	Name or Surname NAKAGAWA
Inventor's signature takahira nakagawa	Date October 15, 2019
Residence: Tokyo, Japan	
Mailing Address: c/o NEC Corporation, 7-1, Shiba 5-chome, Minato-ku, Tokyo,	Japan
NAME OF SECOND INVENTOR:	<u> </u>
Given Name (first and middle [if any]) Family	Name or Surname
Inventor's signature	Date
Residence:	
Mailing Address:	
NAME OF THIRD INVENTOR:	
Given Name	Name or Surname
Inventor's signature	Date
	Daix
Residence:	
Mailing Address:	
NAME OF FOURTH INVENTOR:	
Given Name (first and middle [if any]) Family N	lame or Surname
Inventor's signature	Date
Residence:	
Mailing Address:	
NAME OF FIFTH INVENTOR:	
Given Name (first and middle [if any]) Family N	ame or Sumame
Inventor's signature	Date
Residence:	
Mailing Address:	

PATENT REEL: 051074 FRAME: 0418

[Page 2]