### 504037763 10/05/2016

### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4084425

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
TAKEHIRO MORIYA	08/26/2016
YUTAKA KAMAMOTO	08/26/2016
NOBORU HARADA	08/26/2016
HIROKAZU KAMEOKA	08/26/2016
RYOSUKE SUGIURA	08/26/2016

#### **RECEIVING PARTY DATA**

Name:	NIPPON TELEGRAPH AND TELEPHONE CORPORATION
Street Address:	5-1, OTEMACHI 1-CHOME, CHIYODA-KU
City:	TOKYO
State/Country:	JAPAN
Postal Code:	100-8116
Name:	THE UNIVERSITY OF TOKYO
Name: Street Address:	THE UNIVERSITY OF TOKYO 3-1, HONGO 7-CHOME, BUNKYO-KU
Street Address:	3-1, HONGO 7-CHOME, BUNKYO-KU

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	15302094

#### **CORRESPONDENCE DATA**

**Fax Number:** (703)413-2220

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: (703) 413-3000
Email: tevans@oblon.com
Correspondent Name: OBLON, ET AL.
Address Line 1: 1940 DUKE STREET

Address Line 4: ALEXANDRIA, VIRGINIA 22314

**ATTORNEY DOCKET NUMBER:** 474013US28X PCT

PATENT REEL: 039947 FRAME: 0634

504037763

NAME OF SUBMITTER:	TERRY EVANS
SIGNATURE:	/Terry Evans/
DATE SIGNED:	10/05/2016
Total Attachments: 5 source=474013USAssignment#page1.ti source=474013USAssignment#page2.ti source=474013USAssignment#page3.ti source=474013USAssignment#page4.ti source=474013USAssignment#page5.ti	f f f

### DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT FOR MULTIPLE ASSIGNES

Title of Invention	FREQUENCY DOMAIN PARAMETER SEQUENCE GENERATING METHOD,
Invention	ENCODING METHOD, DECODING METHOD, FREQUENCY DOMAIN PARAMETER SEQUENCE GENERATING APPARATUS, ENCODING
	APPARATUS, DECODING APPARATUS, PROGRAM, AND RECORDING
	MEDIUM
As the below name	d inventor, I hereby declare that:
This declaration	The attached application, or
is directed to:	United States application or PCT international application number PCT/JP2015/054135 filed on February 16, 2015
The above-identifie	d application was made or authorized to be made by me.
I believe that I am t	he original inventor or an original joint inventor of a claimed invention in the application.
The	PON TELEGRAPH AND TELEPHONE CORPORATION and University of Tokyo
(hereinafter referred	to as "ASSIGNEES") having places of business at:
5-1, Otemachi 1-che	ome, Chiyoda-ku, Tokyo 100-8116 Japan and
the entire right, titl	e, Bunkyo-ku, Tokyo 113-8654 Japan, respectively are desirous of jointly acquiring interests in le and interest in and to said invention and in and to any Letters Patent that may be granted ted States and its territorial possessions and in any and all foreign countries;
acknowledged, and said ASSIGNEES, t and in all foreign co other relevant Inter- interest in and to a	FORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby for other good and valuable consideration, I, by these presents do sell, assign and transfer unto the full and exclusive right to the said invention in the United States and its territorial possessions ountries (including the right to claim priority under the terms of the International Convention and national Treaties and Arrangements from the aforesaid application) and the entire right, title and my and all Letters Patent which may be granted therefor in the United States and its territorial any and all foreign countries and in and to any and all divisions, reissues, continuations, newals thereof.
any and all foreign assignees of my en their successors and	ze and request the Patent Office Officials in the United States and its territorial possessions and countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEES as the tire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEES, d assigns, to the full end of the term for which said Letters Patent may be granted, as fully and would have been held by me had this Assignment and sale not been made.
Further, I agree that I will communicate to said ASSIGNEES or their representatives any facts known to me respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letters Patent to be issued to said ASSIGNEES, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEES, their successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.	
I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.	
LEGAL NAME OF	INVENTOR
Inventor: Takehiro	Date: August 26. 2016
Signature: Ta	kelus Proin

## DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT FOR MULTIPLE ASSIGNEES

Title of Invention		ETER SEQUENCE GENERATING METHOD,
Invention	•	NG METHOD, FREQUENCY DOMAIN ERATING APPARATUS, ENCODING
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acknowledged, and said ASSIGNEES, t and in all foreign co other relevant Intern interest in and to an	for other good and valuable consideration the full and exclusive right to the said involuntries (including the right to claim prior national Treaties and Arrangements from any and all Letters Patent which may be any and all foreign countries and in	IVE DOLLARS (\$5.00), the receipt whereof is hereby on, I, by these presents do sell, assign and transfer unto vention in the United States and its territorial possessions writy under the terms of the International Convention and a the aforesaid application) and the entire right, title and granted therefor in the United States and its territorial and to any and all divisions, reissues, continuations,
any and all foreign assignees of my en their successors and	countries to issue any and all of said Leatire right, title and interest in and to the	s in the United States and its territorial possessions and etters Patent, when granted, to said ASSIGNEES as the same, for the sole use and behoof of said ASSIGNEES, which said Letters Patent may be granted, as fully and ssignment and sale not been made.
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	ledge that any willful false statement mad ment of not more than five (5) years, or bo	de in this declaration is punishable under 18 U.S.C. 1001 oth.
LEGAL NAME OF INVENTOR		
Inventor: Yutaka l	KAMAMOTO	Date: August 26, 2016
Signature: 7	tapo pananoto	

# DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT FOR MULTIPLE ASSIGNEES

Title of	FREQUENCY DOMAIN PARAMETER SEQUENCE GENERATING METHOD,
Invention	ENCODING METHOD, DECODING METHOD, FREQUENCY DOMAIN PARAMETER SEQUENCE GENERATING APPARATUS, ENCODING
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acknowledged, and said ASSIGNEES, and in all foreign co other relevant Inter- interest in and to a	FORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby for other good and valuable consideration, I, by these presents do sell, assign and transfer unto the full and exclusive right to the said invention in the United States and its territorial possessions ountries (including the right to claim priority under the terms of the International Convention and national Treaties and Arrangements from the aforesaid application) and the entire right, title and my and all Letters Patent which may be granted therefor in the United States and its territorial any and all foreign countries and in and to any and all divisions, reissues, continuations, newals thereof.
any and all foreign assignees of my en their successors and	ze and request the Patent Office Officials in the United States and its territorial possessions and countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEES as the stire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEES, as assigns, to the full end of the term for which said Letters Patent may be granted, as fully and would have been held by me had this Assignment and sale not been made.
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I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.	
LEGAL NAME OF	
Inventor: Noboru	HARADA Date: August 26. 2016
Signature: Not	born Harada

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NOW, THEREFORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby acknowledged, and for other good and valuable consideration, I, by these presents do sell, assign and transfer unto said ASSIGNEES, the full and exclusive right to the said invention in the United States and its territorial possessions and in all foreign countries (including the right to claim priority under the terms of the International Convention and other relevant International Treaties and Arrangements from the aforesaid application) and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof.	
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LEGAL NAME OF	INVENTOR
Inventor: Hirokaz	TU KAMEOKA Date: August 26, 2016
Signature: <b>運</b>	201 KAMEOKA Date: August 26, 2016 201 July FD Hirokazu Kameoka

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LEGAL NAME OF	
Inventor: Ryosuk	e SUGIURA Date: 26/8/20/6
Signature: Ryo	e SUGIURA Date: 26/8/2016 Usuke Sugura

PATENT REEL: 039947 FRAME: 0640

**RECORDED: 10/05/2016**