PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Seiichi IZUMI	06/01/2009
Hiroaki TAKAHASHI	06/04/2009
Hiroaki TAKANO	06/09/2009
Tomoya YAMAURA	06/10/2009

RECEIVING PARTY DATA

Name:	SONY CORPORATION	
Street Address:	1-7-1 Konan, Minato-ku	
City:	Tokyo	
State/Country:	Japan	
Postal Code:	108-0075	

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	12483363	

CORRESPONDENCE DATA

Fax Number: (703)413-2220

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: (703) 413-3000 Email: rturner@oblon.com Correspondent Name: Ronald Turner Address Line 1: Oblon, Spivak, et al. Address Line 2: 1940 Duke Street

Address Line 4: Alexandria, VIRGINIA 22314

ATTORNEY DOCKET NUMBER:	343476US8
NAME OF SUBMITTER:	Ronald Turner

PATENT REEL: 022819 FRAME: 0053

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Total Attachments: 2 source=343476USASSIGN#page1.tif source=343476USASSIGN#page2.tif

> PATENT REEL: 022819 FRAME: 0054

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Docket Number:	
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ASSIGNMENT

WHEREAS, I, as a below named inventor, residing at the address stated next to my name, am a sole inventor (if only one name is listed below) or a joint inventor (if plural names are listed below) of certain new and useful improvements in COMMUNICATION APPARATUS AND COMMUNICATION CALIBRATION METHOD

for which application for Letters Patent of the United States of America was executed by me on the date indicated next to my name and address;

AND WHEREAS, Sony Corporation, a Japanese corporation with offices at 1-7-1 Konan, Minato-Ku, Tokyo, Japan (hereinafter referenced as ASSIGNEE) is desirous of acquiring all interest in, to and under said invention, said application disclosing the invention and in, to and under any Letters Patent or similar legal protection which may be granted therefor in the United States and in any and all foreign countries;

NOW THEREFORE, in consideration of the sum of One Dollar (\$1.00), and other good and valuable consideration, the receipt and sufficience of which are hereby acknowledged, I, as a sole or joint inventor as indicated below, by these presents do hereby assign, sell and transfer unto the said ASSIGNEE, its successors, assigns, and legal representatives, the entire right, title and interest in the said invention, said application, including any divisions and continuations thereof, and in and to any and all Letters Patent of the United States, and countries foreign thereto, which may be granted for said invention, and in and to any and all priority rights and/or convention rights under the International Convention for the Protection of Industrial Property, Inter-American Convention Relating to Patents, Designs and Industrial Models, and any other international agreements to which the United States of America adheres, and to any other benefits accruing or to accrue to me with respect to the filing of applications for patents or securing of patents in the United States and countries foreign thereto, and I hereby authorize and request the Commissioner of Patents to issue the said United States Letters Patent to said ASSIGNEE, as the assignee of the whole right, title and interest thereto;

And I further agree to execute all necessary or desirable and lawful future documents, including assignments in favor of ASSIGNEE or its designee, as ASSIGNEE or its successors, assigns and legal representatives may from time-to-time present to me and without further remuneration, in order to perfect title in said invention, modifications, and improvements in said invention, applications and Letters Patent of the United States and countries foreign thereto;

And I further agree to properly execute and deliver and without further remuneration, such necessary or desirable and lawful papers for application for foreign patents, for filing subdivisions of said application for patent, and or, for obtaining any reissue or reissues of any Letters Patent which may be granted for my aforesaid invention, as the ASSIGNEE thereof shall hereafter require and prepare at its own expense;

And I further agree that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said application, said invention and said Letters Patent and legal equivalents in foreign countries as may be known and accessible to me and will testify as to the same in any interference or litigation related thereto;

And I hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which

Name of first or sole inventor Execution dat	
	e of U.S. Patent Application
7,	1,2009
This assignment executed on the dates indicated below.	

RECORDED: 06/12/2009

	7 / 2
Hiroaki TAKAHASHI	Tone 4. 2009 Execution date of U.S. Patent Application
Name of second inventor	Execution date of U.S. Patent Application
Kanagawa, Japan	
Residence of second inventor	
Signature of second inventor	June 4 2009 Date of this assignment
Signature of second inventor	Date of this assignment
Hiroaki Takano	June 9,2009
Name of third inventor	Execution date of U.S. Patent Application
	•
Saitama, Japan Residence of third inventor	
	T A A
Hiroxlei Txlexno	June 9, 2009
Signature of third inventor	Date of this assignment
Tomoya Yamaura	June (0, 2009 Execution date of U.S. Patent Application
Name of fourth inventor	Execution date of U.S. Patent Application
Tokyo, Japan	
Residence of fourth inventor	
T . 1	June 10. 2009
Signature of fourth inventor	June 10, 2009 Date of this assignment
Digitally Of Political Investors	
Name of fifth inventor	Execution date of U.S. Patent Application
Residence of fifth inventor	
Signature of fifth inventor	Date of this assignment