## Electronic Version v1.1 Stylesheet Version v1.1

| SUBMISSION TYPE:      | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT     |

#### **CONVEYING PARTY DATA**

| Name               | Execution Date |
|--------------------|----------------|
| Toshiyuki NAKAGAWA | 05/14/2007     |
| Hiroyuki INO       | 05/14/2007     |
| Tomoyuki HIURA     | 05/14/2007     |
| Tomohiro IKEGAMI   | 05/15/2007     |
| Masaaki HARA       | 05/28/2007     |
| Norihito MIHOTA    | 05/14/2007     |
| Shinichi FUKUDA    | 05/15/2007     |
| Yoshihiko DEOKA    | 05/17/2007     |
| Hidetoshi HONDA    | 05/22/2007     |

#### **RECEIVING PARTY DATA**

| Name:             | SONY CORPORATION |
|-------------------|------------------|
| Street Address:   | 1-7-1 Konan      |
| Internal Address: | Minato-ku        |
| City:             | Tokyo            |
| State/Country:    | JAPAN            |

### PROPERTY NUMBERS Total: 1

| Property Type       | Number   |
|---------------------|----------|
| Application Number: | 11726233 |

#### **CORRESPONDENCE DATA**

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PATENT REEL: 019494 FRAME: 0881 117262

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|--|-----------------|
| ATTORNEY DOCKET NUMBER:  | 075834.00993    |
| NAME OF SUBMITTER:   | Robert J. Depke |
| Total Attachments: 3 source=993_Assignment#page1.tif source=993_Assignment#page2.tif source=993_Assignment#page3.tif |                 |

PATENT REEL: 019494 FRAME: 0882

Docket Number: <u>075834.00993</u>

#### 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

# MAGNETIC RECORDING AND REPRODUCTION METHOD, RECORDING APPARATUS, REPRODUCTION APPARATUS AND MAGNETIC RECORDING MEDIUM

for which an 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 sufficiency of which are hereby acknowledged, I, as a sole or joint inventor as indicated below, do hereby assign, sell and transfer unto the said ASSIGNEE, its successors, assigns, the entire right, title and interest in the said invention, said application, including any divisions and continuations as well as any reissues and reexaminations 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 filling 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 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 would conflict with this assignment and sale.

And I hereby authorize and request my attorney(s) of record in this application to insert the serial number and filing date of this application in the spaces that follow:

| Application                       | No1              | /726,233              | Filing Date: | March 21, 2007                            |
|-----------------------------------|------------------|-----------------------|--------------|---|
| This assignn                      | nent executed on | the dates indicated l | below.       |   |
| Toshiyuki NAKAGAWA                |                  |                       |              |   |
| Name of first or sole inventor    |                  |                       |              | Execution date of U.S. Patent Application |
| Kanagawa, Japan                   |                  |                       |              |   |
| Residence of first or sole inver  | ntor             | ···                   |              |   |
| Signature of First or sole inven  | ekiyahi T        | Takagawa              |              | Mory 14, 200 X  Date of this Assignment   |
| orginature of thist of sole inven | tor v            |                       |              | Date of this Assignment                   |

PATENT REEL: 019494 FRAME: 0883

| Hiroyuki INO                                |   |
|---|---|
| Name of second inventor                     | Execution date of U.S. Patent Application   |
| Tokyo, Japan                                |   |
| Residence of second inventor                |   |
| Hiroyuki Ino                                | may 14, 2001  |
| Signature of second inventor                | May 14, 2007  Date of this Assignment   |
| Signature of second inventor                | 2 4.0 01 4.00 05  |
| Tomoyuki HIURA                              | The state of the Patrick Application  |
| Name of third inventor                      | Execution date of U.S. Patent Application   |
| Kanagawa, Japan Residence of third inventor |   |
|   | e de la companya de |
| Signature of third inventor                 | May 14, 2007  Date of this Assignment   |
| organization of third inversion             |   |
| Tomohiro IKEGAMI  Name of fourth inventor   | Execution date of U.S. Patent Application   |
| Name of fourth inventor                     | Execution date of o.o. I atem rippingation  |
| Kanagawa, Japan                             |   |
| Residence of fourth inventor                |   |
| Signature of fourth inventor                | May 15, 2007  |
| Standfure of fourth inventor                | Date of this Assignment   |
| organicate of fourth involted               | J   |
| Masaaki HARA                                |   |
| Name of fifth inventor                      | Execution date of U.S. Patent Application   |
| Tokyo, Japan                                |   |
| Residence of fifth inventor                 |   |
| Mana Li Tolina                              | Man 29. 2017  |
| Masachi Hara Signature of fifth inventor    | May 2P, 2007 Date of this Assignment  |
|   |   |
| Norihito MIHOTA                             |   |
| Name of sixth inventor                      | Execution date of U.S. Patent Application   |
| Saitama, Japan                              |   |
| Residence of sixth inventor                 |   |
| 1-1.1 0-1-                                  | a 14-200/7  |
| Signature of sixth inventor                 | May 14, 200 7 Date of this Assignment   |
| Signature of sixth inventor                 | Date of this Assignment   |
| Shinichi FUKUDA                             |   |
| Name of seventh inventor                    | Execution date of U.S. Patent Application   |
|   |   |
| Kanagawa, Japan                             |   |
| Residence of seventh inventor               | ,   |
| This I'm tuhada                             | Mary 15, 07 Date of this Assignment   |
| Signature of seventh inventor               | Date of this Assignment   |

PATENT REEL: 019494 FRAME: 0884

| Yoshihiko DEOKA                              | Execution date of U.S. Patent Application |
|--|---|
| Name of eighth inventor                      | 11  |
| Tokyo, Japan                                 |   |
| Residence of eighth inventor                 |   |
| Signature of eighth inventor Jashihiko Deoka | May 17 2007<br>Date of this Assignment    |
| Signature of eighth inventor $\eta$          | ,   |
|  |   |
| Hidetoshi HONDA                              |   |
| Name of ninth inventor                       | Execution date of U.S. Patent Application |
|  | may. 22, 2007                             |
| Miyagi, Japan                                | 7 7 1                                     |
| Residence of ninth inventor                  | $0 - \frac{1}{2} = \frac{1}{2}$           |
| Hidetahi Honda                               | Date of this Assignment                   |
| Signature of ninth inventor                  | Or and and a significant                  |
|  | may . 222007 17.11                        |
|  |   |
|  |   |
|  |   |

**RECORDED: 06/28/2007** 

PATENT

**REEL: 019494 FRAME: 0885**