

PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

| SUBMISSION TYPE: | NEW ASSIGNMENT | | | | | | | | | | |
|---|---|----------------|---------------------|------------|-----------------|------------|-------------------|------------|-------------------|------------|--|
| NATURE OF CONVEYANCE: | ASSIGNMENT | | | | | | | | | | |
| CONVEYING PARTY DATA | | | | | | | | | | | |
| <table border="1"><thead><tr><th>Name</th><th>Execution Date</th></tr></thead><tbody><tr><td>Tetsuya KAWANISHI</td><td>02/05/2008</td></tr><tr><td>Masayuki IZUTSU</td><td>02/04/2008</td></tr><tr><td>Takahide SAKAMOTO</td><td>02/04/2008</td></tr><tr><td>Masahiro TSUCHIYA</td><td>02/04/2008</td></tr></tbody></table> | Name | Execution Date | Tetsuya KAWANISHI | 02/05/2008 | Masayuki IZUTSU | 02/04/2008 | Takahide SAKAMOTO | 02/04/2008 | Masahiro TSUCHIYA | 02/04/2008 | |
| Name | Execution Date | | | | | | | | | | |
| Tetsuya KAWANISHI | 02/05/2008 | | | | | | | | | | |
| Masayuki IZUTSU | 02/04/2008 | | | | | | | | | | |
| Takahide SAKAMOTO | 02/04/2008 | | | | | | | | | | |
| Masahiro TSUCHIYA | 02/04/2008 | | | | | | | | | | |
| RECEIVING PARTY DATA | | | | | | | | | | | |
| Name: | National Institute of Information and Communications Technology | | | | | | | | | | |
| Street Address: | 4-2-1, Nukui-Kitamachi, Koganei-shi | | | | | | | | | | |
| City: | Tokyo | | | | | | | | | | |
| State/Country: | JAPAN | | | | | | | | | | |
| Postal Code: | 184-8795 | | | | | | | | | | |
| PROPERTY NUMBERS Total: 1 | | | | | | | | | | | |
| <table border="1"><thead><tr><th>Property Type</th><th>Number</th></tr></thead><tbody><tr><td>Application Number:</td><td>12063436</td></tr></tbody></table> | Property Type | Number | Application Number: | 12063436 | | | | | | | |
| Property Type | Number | | | | | | | | | | |
| Application Number: | 12063436 | | | | | | | | | | |
| CORRESPONDENCE DATA | | | | | | | | | | | |
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| NAME OF SUBMITTER: | Harris A. Wolin | | | | | | | | | | |
| Total Attachments: 1 | | | | | | | | | | | |

OP \$40.00 12063436

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PATENT
REEL: 020486 FRAME: 0041

ASSIGNMENT

Attorney Docket: HIRO 618

WHEREAS, the below named inventor(s), ASSIGNOR, has made a certain new and useful invention in a RECIPROCATING OPTICAL MODULATION SYSTEM, for which an application is being filed concurrently herewith.

WHEREAS, National Institute of Information and Communications Technology, having an address at 4-2-1, Nukui-Kitamachi, Koganei-shi, Tokyo 184-8795, Japan, ASSIGNEE, is desirous of obtaining the entire right, title and interest in, to and under the said invention and the said application.

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to me in hand paid, and other good and valuable consideration, the receipt of which is hereby acknowledged, the said ASSIGNOR has sold, assigned, transferred and set over, and by these presents does hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, the entire right, title and interest in, to and under the said invention, and the said United States application and all divisions, renewals and continuations thereof, and all Patents of the United States which may be granted thereon and all reissues and extensions thereof; and all applications for industrial property protection, including, without limitation, all applications for patents, utility models, and designs which may hereafter be filed for said invention in any country or countries foreign to the United States, together with the right to file such applications and the right to claim for the same the priority rights derived from said United States application under the Patent Laws of the United States, the International Convention for the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and all forms of industrial property protection, including, without limitation, patents, utility models, inventor's certificates and designs which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof;

ASSIGNOR authorizes and requests the Commissioner of Patents and Trademarks of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument; and

ASSIGNOR covenants and agrees that he has full right to convey the entire interest herein assigned, and has not executed, and will not execute, any agreement in conflict herewith; and

ASSIGNOR further covenants and agrees that he will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue and foreign applications, make all rightful oaths, and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper protection for said invention in all countries.

Full name of first inventor: Tetsuya KAWANISHI
 Inventor's Signature: [Signature] Date: Feb. 05, 2008
 Residence: Tokyo, Japan Citizenship: Japan
 Post Office Address: c/o Intellectual Property Management Group, National Institute of Information and Communications Technology, 4-2-1, Nukui-Kitamachi, Koganei-shi, Tokyo 184-8795, Japan

Full name of joint inventor: Masayuki IZUTSU
 Inventor's Signature: [Signature] Date: Feb. 04, 2008
 Residence: Tokyo, Japan Citizenship: Japan
 Post Office Address: c/o Intellectual Property Management Group, National Institute of Information and Communications Technology, 4-2-1, Nukui-Kitamachi, Koganei-shi, Tokyo 184-8795, Japan

Full name of joint inventor: Takahide SAKAMOTO
 Inventor's Signature: [Signature] Date: Feb. 09, 08
 Residence: Tokyo, Japan Citizenship: Japan
 Post Office Address: c/o Intellectual Property Management Group, National Institute of Information and Communications Technology, 4-2-1, Nukui-Kitamachi, Koganei-shi, Tokyo 184-8795, Japan

Full name of joint inventor: Manabu TSUCHIYA
 Inventor's Signature: [Signature] Date: Feb. 09, 08
 Residence: Tokyo, Japan Citizenship: Japan
 Post Office Address: c/o Intellectual Property Management Group, National Institute of Information and Communications Technology, 4-2-1, Nukui-Kitamachi, Koganei-shi, Tokyo 184-8795, Japan

PATENT

RECORDED: 02/11/2008

REEL: 020486 FRAME: 0043