| Form PTO-1595 (Rev. 08/05) OMB No. 0651-0027 (exp. 6/30/2008) | U.S. DEPARTMENT OF COMMERC United States Palent and Trademark Office | | |
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| RECORDATION FOR | | | |
| PATENTS ONLY | | | |
| To the Director of the U.S. Patent and Trademark Office: Please record the attached doct ments or the new address(es) below. | | | |
| 1. Name of conveying party(ies): | 2. Name and address of receiving party(ies) | | |
| Hiroyuki Tsuda (11/09/2007), Hiroshi Ishikawa (11/02/2007), and Hisato Uetsuka (11/02/2007) | Name: KEIO University Internal Address: | | |
| Additional name(s) of conveying party(ies) attached? Yes X No | Street Address: | | |
| 3. Nature of conveyance/Execution Date(s): | 15-45, Mita 2-chome, Minato-ku | | |
| Execution Date(s): in parentheses after inventor name | Tokyo 108-8345 | | |
| X Assignment Merger Change of Name | JAPAN | | |
| Security Agreement Joint Research Agreement | City: | | |
| Government Interest Assignment | State: | | |
| Executive Order 9424, Confirmatory License | Country: Zip: | | |
| Other | Additional name(s) & a idress(es) X Yes No | | |
| | attached? | | |
| 4. Application or patent number(s): | This document is being filed together with a new application. | | |
| A. Patent Application No.(s) | B. Patent No.(s) | | |
| 11/882,511 | | | |
| | <u>_</u> | | |
| Additional numbers attached? Yes XNo | | | |
| Name and address to whom correspondence concerning document should be mailed: | 6. Total number of apr lications and patents involved: | | |
| Name: William L. Brooks | | | |
| EDWARDS ANGELL PALMER & DODGE LLP | 7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00 | | |
| Internal Address: Atty. Dkt.: 68786(302741) | Authorized to be charged by credit card | | |
| Street Address: P.O. Box 55874 | | | |
| | x Authorized to he charged to deposit account | | |
| | Enclosed | | |
| | None required (government interest not affecting title) | | |
| City: Boston | 8. Payment Informatio 1 | | |
| State: MA Zip: 02205 | a. Credit Card List 4 Numbers | | |
| Phone Number: (202) 478-7370 | Expiration Date | | |
| Fax Number: (202) 478-7380 | b. Deposit Account Number 04-1105 | | |
| Email Address: wbrooks@eapdlaw.com | Authorized User Name William L. Brooks | | |
| 9. Signature: | | | |
| Wille L Vand | December 13, 2007 | | |
| Signature | Date | | |
| William L. Brooks - 34,129 | Total number of pages including cover 5 sheet, a tachments, and documents: | | |
| Name of Person Signing sneet, a tachments, and documents: | | | |
| | | | |
| I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being transmitted by facsimile to the Patent and Trademark Office, facsimile no. (571) 273-0140, on the detection below. | | | |
| Dated: December 13, 2007 Signature Church (Rebecca L. Brimmer) | | | |

235706

PATENT REEL: 020252 FRAME: 0130

700353578

| RECORDATION FORM COVER SHEET (PT:)-1595) (supplemental sheet) Additional Conveying Party(ies)/Execution Date(s) (1. Continued): | | | | |
|--|---|---|------|--|
| | | | | |
| Assignee Name: | Hitachi Cable, Ltd. | | | |
| Internal Address: Street Address: | 14-1, Sotokanada 4-chome, Chi Tokyo 101-8971 JAPAN | yoda-ku | | |
| City: | State: | Country: | Zip: | |
| Assignee Name: Internal Address: Street Address: | | | | |
| City: | State: | Country: | Zip: | |
| Assignee Name: Internal Address: Street Address: | | | | |
| City: | State: | Country: | Zip: | |
| Additional A | pplications and/or Patents | s (4. Continued): | | |
| Additional Patent Application Numbers 4A. Continued: | | Additional Patent Numbers 4B. Continued: | | |
| | | | | |
| | | | | |
| | Additional numbers | attached? Yes N | 0 | |

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Docket No.: 68786(302741)

111-1066

ASSIGNMENT BY INVENTOR

THIS ASSIGNMENT, made this $9 \#_{\text{obs}}$ day of N_{obs} , $2 \circ 0 \%$, by Hiroyuki Tsuda, Hiroshi Ishikawa and Hisato Uetsuka (hereinafter referred to as Assignor), residing at c/o Faculty of Science and Technology, Keio University, 14-1, Hiroshi 3-chome, Kohoku-ku, Yokohama-shi, Kanagawa 223-8522 Japan; c/o Hitachi Cable, Ltd., 14-1, Sotokanda 4-chome, Chiyoda-ku, Tokyo 101-8971 Japan; and c/o Hitachi Cable, Ltd., 14-1, Sotokanda 4-chome, Chiyoda-ku, Tokyo 101-8971 Japan;

WHEREAS, Assignor has invented certain new and useful improvements in DIFFRACTION GRATING AND DISPERSION COMPENSATION CIRCUIT, set forth in a Patent application for Letters Patent of the United States, filed herewith or if not filed herewith, being earlier filed on August 2, 2007 and having Serial No. 11/882,511; and

WHEREAS, KEIO UNIVERSITY and Hitachi Cable, Ltd., a University and a private company organized under and pursuant to the laws of Japan having its principal place of business at 15-45, Mita 2-chome, Minato-ku, Tokyo 108-8345 Japan; and 14-1, Sotokanda 4-chome, Chiyoda-ku, Tokyo 101-8971 Japan (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said inventions and said Application for Letters Patent of the United States, and in and to any Letters Patent of the United States to be obtained therefore and thereon.

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and sufficient consideration, the receipt of which is hereby acknowledged, Assignor has sold, assigned, transferred and set over, and by these presents does sell, assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns, the entire right, title and interest in and to the above-mentioned inventions and application for Letters Patent, and in and to any and all direct and indirect divisions, continuations and continuations-in-part of said application, and any and all Letters Patent in the United States and all foreign countries which may be granted therefore and thereon, and reissues, reexaminations and extensions of said Letters Patent, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by Assignee, for its own use and benefit and the use and benefit of its successors, legal representatives and assigns, to the full end of the term or terms for which Letters Patent may be granted and/or extended, as fully and entirely as the same would have been held and enjoyed by Assignor, had this sale and assignment not been made.

AND for the same consideration, Assignor hereby represents and warrants to Assignee, its successors, legal representatives and assigns, that, at the time of execution and delivery of these presents, except for any rights, titles and/or interests that have arisen to Assignee under law or that have already been transferred to Assignee, Assignor is the sole and lawful owner of the entire right, title and interest in and to the said inventions and application for Letters Patent above-mentioned, and that the same are unencumbered and that Assignor has good and full right and lawful authority to sell and convey the same in the manner herein set forth.

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AND for the same consideration, Assignor hereby covenants and agrees to and with Assignee, its successors, legal representatives and assigns, that Assignor will sign all papers and documents, take all lawful oaths and do all acts recessary or required to be done for the procurement, maintenance, enforcement and defense of any Letters Patent and applications for Letters Patent for said inventions, without charge to Assignee, its successors, legal representatives and assigns, whenever counsel of Assignee, or counsel of its successors, legal representatives and assigns, shall advise: that any proceeding in connection with said inventions, or said Patent application for Letters Patent, or any proceeding in connection with any Letters Patent or applications for Letters Patent for said inventions in any country, including but not limited to interference proceedings, is lawful and desirable; or, that any division, continuation or continuation-in-part of any application for Letters Patent, or any reissue, reexamination or extension of any Letters Patent, to be obtained thereon, is lawful and desirable.

AND Assignor hereby requests the Commissioner of Patent and Trademarks to issue said Letters Patent of the United States to Assignee, as Assignee of said inventions and the Letters Patent to be issued thereon, for the sole use and benefit of Assignee, its successors, legal representatives and assigns.

AND Assignor hereby grants the following individuals the pov/er to insert on this Assignment any further identification which may be necessar/ or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document:

EDWARDS ANGELL PALMER & DODGE LLP

All practitioners at Customer Number 21874

AND Assignor acknowledges an obligation of assignment of this invention to Assignee at the time the invention was made.

Nov. 9, 2007

Date

Mrayahi Isada Name:Hiroyuki Tsuda

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Ver 7/07

PATENT REEL: 020252 FRAME: 0133

| November 2, 2007 Date | Hiroshi Ishikawa Name:Hiroshi Ishikawa |
|--------------------------|---|
| Hovember 2, 2007 Date | Name: Hisato Uetsuka |
| Date | Name: |
| Date | Name: |
| Date BOS2 623377.1 | Name: |

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Ver 7/07

RECORDED: 12/13/2007

PATENT REEL: 020252 FRAME: 0134