

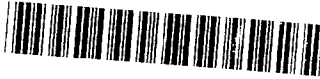
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U.S. DEPARTMENT OF COMMERCE
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102979140
PATENT

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

1. Name of conveying party(ies)/Execution Date(s):
Katsuhiko Kurumada (09/16/2004), Toshiaki Tamamura (09/22/2004), Masatoshi Kanaya (09/22/2004), and Makoto Satoh (09/16/2004).
Execution Dates: in parentheses after inventor name
Additional name(s) of conveying party(ies) attached? Yes No

2. Name and address of receiving party(ies)
Name: NTT ELECTRONICS CORPORATION
Internal Address: _____
Street Address: _____
12-1, Dogenzaka 1-chome
Shibuya-ku
Tokyo
150-0043
JAPAN
City: _____
State: _____
Country: _____ Zip: _____
Additional name(s) & address(es) attached: Yes No

3. Nature of Conveyance:
 Assignment Merger
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 Government Interest Assignment
 Executive Order 9424, Confirmatory License
 Other _____

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) _____
Additional numbers attached? Yes No

5. Name and address to whom correspondence concerning document should be mailed:
Name: Michael A. Sartori, Ph.D.
VENABLE LLP
Internal Address: Atty. Dkt.: 32307-208197
Street Address: P.O. Box 34385
City: Washington
State: DC Zip: 20043-9998
Phone Number: (202) 344-4000
Fax Number: (202) 344-8300
Email Address: _____

6. Total number of applications and patents involved: 1
7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00
 Authorized to be charged to credit card
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 Enclosed
 None required (government interest not affecting title)

8. Payment Information:
a. Credit Card Last 4 Numbers _____
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9. Signature.
Michael A. Sartori Signature September 27, 2004 Date
Michael A. Sartori, Ph.D. - 41,289 Name of Person Signing
Total number of pages including cover sheet, attachments, and documents: 7

DC2-583983

ASSIGNMENT BY INVENTORS

THIS ASSIGNMENT, made by 1) Katsuhiko KURUMADA, 2) Toshiaki TAMAMURA, 3) Masatoshi KANAYA, and 4) Makoto SATOH (hereinafter referred to as Assignors), residing at 1), 2), 3), and 4) c/o Intellectual Property Department, NTT ELECTRONICS CORPORATION, 12-1, Dogenzaka 1-chome, Shibuya-ku, Tokyo 150-0043, Japan;

WHEREAS, Assignors have invented certain new and useful improvements in OPTICAL DEVICE, set forth in Patent Application No. _____, filed _____, for which an International Application was filed on March 27, 2003, PCT/JP03/03877, designating the United States; and

WHEREAS, NTT ELECTRONICS CORPORATION, of 12-1, Dogenzaka 1-chome, Shibuya-ku, Tokyo 150-0043, 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, Assignors have sold, assigned, transferred and set over, and by these presents do 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 Assignors, had this sale and assignment not been made.

AND for the same consideration, Assignors hereby represent and warrant 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, Assignors are the sole and lawful owners 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 Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth.

AND for the same consideration, Assignors hereby covenant and agree to and with Assignee, its successors, legal representatives and assigns, that Assignors will sign all papers and documents, take all lawful oaths and do all acts necessary 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 Assignors hereby request 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 Assignors hereby grant the following individuals the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document:

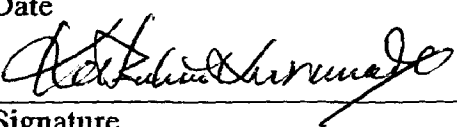
VENABLE LLP

VENABLE LLP
Washington, DC 20004

2/6

PATENT
REEL: 016444 FRAME: 0793

AND Assignors acknowledge an obligation of assignment of this invention to Assignee at the time the invention was made.

Executed on:	September 16, 2004
Assignor: Katsuhiko KURUMADA	Date
_____ Assignor Name	 _____ Signature
Witness: Katsumi MURASE	村 瀬 克 実
_____ Witness Name	_____ Signature
c/o Intellectual Property Department, NTT ELECTRONICS CORPORATION, 12-1, Dogenzaka 1-chome, Shibuya-ku, Tokyo 150-0043, Japan	
_____ Witness Address	

Executed on:

22 - Sep - 2009
Date

Assignor:

Toshiaki TAMAMURA

Toshiaki Tamamura
Signature

Assignor Name

Witness:

Katsumi MURASE

村瀬克実
Signature

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Eiichi Onda

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