

Form PTO-1595

(Rev. 10/02)

OMB No. 0651-0027 (exp. 6/30/2005)

Tab settings

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06-30-2003

U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office



102485768

original documents or copy thereof.

To the Honorable Commissioner of Patents

1. Name of conveying party(ies):
SEE ADDITIONAL SHEET ATTACHED

2. Name and address of receiving party(ies)

Name: Northrop Grumman Corporation

Internal Address:

Street Address: 1840 Century Park East

City: Los Angeles State: CA Zip: 90067-2199

Country:

Additional name(s) & address(es) attached? Yes No

Additional name(s) of conveying party(ies) attached? Yes No

3. Nature of conveyance:

- Assignment Merger
- Security Agreement Change of Name
- Other

SEE ADDITIONAL SHEET ATTACHED

Execution Date:

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s) 10/411,873

B. Patent No.(s)

Additional numbers attached? Yes No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: John A. Miller

Internal Address:

Street Address: P.O. Box 70098

City: Rochester Hills State: MI Zip: 48307

6. Total number of applications and patents involved:

7. Total fee (37 CFR 3.41).....\$ 40.00

- Enclosed
- Authorized to be charged to deposit account

8. Deposit account number:

DO NOT USE THIS SPACE

9. Signature.

06/30/2003 6T0N11 00000037 10411873

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40.00 DP

John A. Miller
Name of Person Signing

John A. Miller
Signature

June 19, 2003
Date

Total number of pages including cover sheet, attachments, and documents:

Mail documents to be recorded with required cover sheet information to:
Commissioner of Patents & Trademarks, Box Assignments
Washington, D.C. 20231

RECORDATION FORM COVER SHEET

PAGE 2

1. Name of Conveying Parties:

Elizabeth T. Kunkee
David V. Forbes
David C. Scott
Timothy A. Vang
Wenshen Wang

3. Nature of Conveyance:

Execution Dates:

June 17, 2003
June 2, 2003
May 19, 2003
May 21, 2003
June 7, 2003

ASSIGNMENT

Atty. Docket No. NGC-00076(11-1117)

WHEREAS, the undersigned, hereinafter referred to collectively as Assignor, has invented:

IN-PHASE RF DRIVE OF MACH-ZEHNDER MODULATOR PUSH-PULL ELECTRODES BY USING COUPLED QUANTUM WELL OPTICAL ACTIVE REG

for which Assignor is about to make or has made United States or International application for patent

- (a) executed on even date preparatory to filing (each inventor should sign this Assignment on the same day as he/she signs the Declaration and Power of Attorney);
- (b) executed on _____, _____, _____; or
- (c) filed on April 10, 2003, and assigned Serial No. 10/411,873 or PCT International Application No. _____;
- (d) U.S. Patent No. _____, issued _____; and

WHEREAS, Northrop Grumman Corporation, a Delaware corporation, with its principal place of business located at 1840 Century Park East, Los Angeles, California 90067-2199, hereinafter referred to as Assignee, is desirous of acquiring an interest therein:

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy whereof is hereby acknowledged, Assignor by these presents does sell, assign and transfer unto Assignee and its successors in interest, the full and exclusive right, title and interest in the United States of America and all foreign countries, including the right to claim priority under the laws of the United States, the Paris Convention, and any foreign countries, to the said invention as described in the aforesaid application, said application for patent and all Letters Patent therefor to be held and enjoyed by Assignee to the full end of the term for which said Letters Patent are granted and any extensions thereof as fully and entirely as the same would have been held by Assignor had this assignment and sale not been made, and the right to recover for past infringements of, or liabilities for, any of the rights relating to any of said applications or patents resulting therefrom;

Assignor hereby covenants and agrees to execute all instruments or documents required or requested for the making and prosecution of any applications of any type for patent in the United States and in all foreign countries including, but not limited to, any provisional, continuation, continuation-in-part, divisional, renewal or substitute thereof, and as to letters patent any reissue, re-examination, or extension thereof, and for litigation regarding, or for the purpose of protecting title and to the said invention, the United States application for patent, or Letters Patent therefor, and to testify in support thereof, for the benefit of Assignee without further or other compensation than that above set forth;

Assignor hereby covenants that no assignment, sale or agreement or encumbrance has been or will be entered into which would conflict with this Assignment; and

Assignor hereby requests the Commissioner of Patents and Trademarks to issue said Letters Patent of the United States of America to Assignee, and requests that any official of any country or countries foreign to the United States, whose duty it is to issue or grant patents and applications as aforesaid, to issue said Letters Patent, Utility Model Registration or Inventor's Certificate to Assignee.

ASSIGNMENT

Elizabeth T Kunkee
Elizabeth T. Kunkee (First inventor)

Dated: June 17, 2003

David V. Forbes (Second inventor)

Dated: _____

David C. Scott (Third inventor)

Dated: _____

Timothy A. Vang (Fourth inventor)

Dated: _____

Wenshen Wang (Fifth inventor)

Dated: _____

ASSIGNMENT

Elizabeth T. Kunkee (First inventor)

Dated: _____

David V. Forbes

David V. Forbes (Second inventor)

Dated: *6/7/2003*

David C. Scott (Third inventor)

Dated: _____

Timothy A. Vang (Fourth inventor)

Dated: _____

Wenshen Wang (Fifth inventor)

Dated: _____

ASSIGNMENT

Elizabeth T. Kunkee (First inventor)

Dated: _____

David V. Forbes (Second inventor)

Dated: _____



David C. Scott (Third inventor)

Dated: 5/19/03

Timothy A. Vang (Fourth inventor)

Dated: _____

Wenshen Wang (Fifth inventor)

Dated: _____

ASSIGNMENT

Elizabeth T. Kunkee (First inventor)

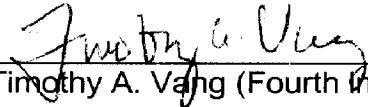
Dated: _____

David V. Forbes (Second inventor)

Dated: _____

David C. Scott (Third inventor)

Dated: _____



Timothy A. Vang (Fourth inventor)

Dated: 5-21-03

Wenshen Wang (Fifth inventor)

Dated: _____

ASSIGNMENT

Elizabeth T. Kunkee (First inventor)

Dated: _____

David V. Forbes (Second inventor)

Dated: _____

David C. Scott (Third inventor)

Dated: _____

Timothy A. Vang (Fourth inventor)

Dated: _____



Wenshen Wang (Fifth inventor)

Dated: 6/7/2003