

01-06-2005

EET

U.S. DEPARTMENT OF  
COMMERCE

Patent and Trademark Office

Atty. Docket No.: 154822

To the Honorable Commissioner of I

102905487

attached original documents or copy thereof.

## 1. Name of conveying party(ies):

- (1) Sami A. SHAKIR  
(2) Sami T. HENDOW  
(3) William R. CULVER  
(4) Burke E. NELSON

Additional name(s) of conveying party(ies) ☐ Yes ☒ No

## 3. Nature of conveyance:

- ☒ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☐ Other \_\_\_\_\_

Execution Date: December 13 and 15, 2004

## 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**Additional name(s) & addresses(es) attached? ☐ Yes ☒ No

## 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: Dec. 13 & 15, 2004

A. Patent Application No.(s)

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☐ No

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

Name: Kelly T. Lee

**ANDREWS KURTH LLP**  
INTELLECTUAL PROPERTY DEPARTMENT  
1701 Pennsylvania Avenue, N.W.  
Suite 300  
Washington, DC 20006

6. Total number of applications and patents involved: 17. Total fee (37 CFR 3.41):.....\$ 40.00

- ☒ Enclosed - Any excess or insufficiency should be credited or debited to deposit account  
☒ Authorized to be charged to deposit account

## 8. Deposit account number:

**50-2849**

(Attach duplicate copy of this page if paying by deposit account)

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## 9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Kelly T. Lee, Reg. No. 47,743

Name of Person Signing

Signature

December 20, 2004

Date

01/03/2005 6TUN11 00000148 502849 11015671

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Total number of pages including cover sheet, attachments, and document: 6

Mail documents to be recorded with required cover sheet information to:  
Commissioner for Patents & Trademarks, Mail Stop: Assignments  
P.O. Box 1450, Alexandria, Virginia 22313-1450

**ASSIGNMENT**

WHEREAS We:

<b><u>NAME</u></b>	<b><u>RESIDENCE</u></b>
Sami A. SHAKIR	1509 Catron, S.E., Albuquerque, NM 87123
Sami T. HENDOW	860 Terrace Drive, Los Altos, CA 94024
William R. CULVER	13109 Buffalo Dancer Court N.E., Albuquerque, NM 87112
Burke E. NELSON	11201 Oakland, N.E., Albuquerque, NM 87122

respectively, are the joint inventors of certain inventions or improvements for which we have made application for a Utility Patent of the United States, entitled **PASSIVE PHASING OF FIBER AMPLIFIERS**; and

WHEREAS, **Northrop Grumman Corporation** of 1840 Century Park East, Los Angeles, CA 90067, a corporation operating under the laws of the state of California, is desirous of acquiring the entire right, title and interest in and to the said inventions or improvements and in and to the said application, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in any and all countries of the world;

NOW, THEREFORE, for good and valuable consideration, we have assigned, and do hereby assign, to **Northrop Grumman Corporation**, its successors, assigns and legal representatives ("Nominees") the entire right, title and interest, including the right of priority, in, to and/or under said inventions or improvements throughout the world, said Utility Patent Application, any and all applications for Letters Patent, petty patents and utility model patents of the United States and of countries foreign thereto based on or claiming the priority of said Utility Patent Application, any and all Letters Patent, petty patents and utility model patents which may be granted therefor, and all continuations, divisions, reissues, extensions and renewals thereof ("Letters Patent");

And we covenant that we have full right to convey the entire interest herein assigned, and that we have not executed and will not execute any agreement or do anything in conflict herewith;

And we further covenant and agree that we will without undue delay execute all such papers as may be necessary to perfect the title to said inventions or improvements, applications and Letters Patents in **Northrop Grumman Corporation**, or its successors, assigns, nominees or legal representatives, and we agree to communicate to said **Northrop Grumman Corporation**, or its successors, assigns, nominees or legal representatives all known facts respecting said inventions or improvements, application and Letters Patent, to testify in any legal proceedings, to sign all lawful papers, and generally to do all things necessary to aid **Northrop Grumman Corporation** or its successors, assigns, nominees or legal representatives to obtain and enforce for their own benefit patent protection for said inventions or improvements in any and all countries, all at the expense, however, of **Northrop Grumman Corporation**, or its successors, assigns, nominees or legal representatives;

And we authorize **Northrop Grumman Corporation** or its successors, assigns, nominees or legal representatives to file in our name or their own, as appropriate, applications for Letters Patents, petty patents and utility model patents in all countries of the world, and we authorize and request the Commissioner of Patents and Trademarks of the United States, and any proper official of any country of the world, to issue to said **Northrop Grumman Corporation**, or its successors, assigns, nominees or legal representatives, any and all Letters Patents, petty patents and utility model patents for said invention or improvements, for their sole use, to the full end of the term for which such Letters Patents, petty patents and utility model patents may be granted.

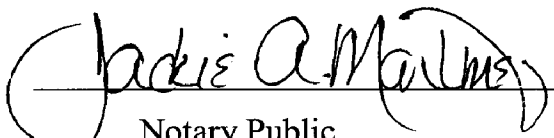
IN WITNESS WHEREOF I have hereunto set my hand and seal this 15 day of December, 2004.

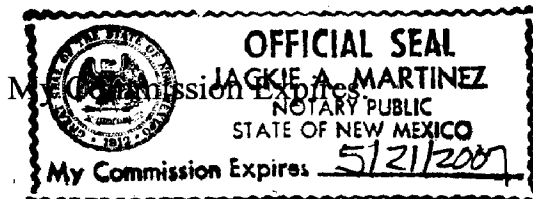
 (SEAL)  
**Sami A. SHAKIR**

State of: New Mexico )  
 ) ss:

County of: Bernalillo )

On this 15 day of December, 2004, before me personally came the above named **Sami A. SHAKIR** personally known to me or satisfactorily proven to be the same individual who executed the foregoing Assignment of his own free will for the use and purpose therein set forth.

  
Notary Public



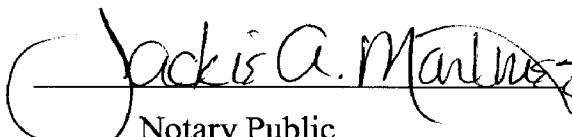
IN WITNESS WHEREOF I have hereunto set my hand and seal this 15 day of Dec, 2004.

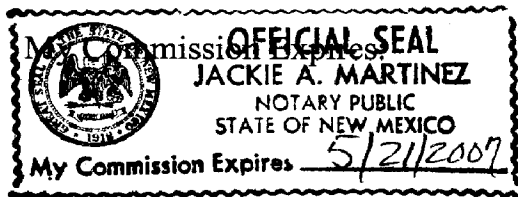
 (SEAL)  
**Sami T. HENDOW**

State of: New Mexico )  
 ) ss:

County of: Bernalillo )

On this 15 day of December, 2004, before me personally came the above named **Sami T. HENDOW** personally known to me or satisfactorily proven to be the same individual who executed the foregoing Assignment of his own free will for the use and purpose therein set forth.

  
Notary Public



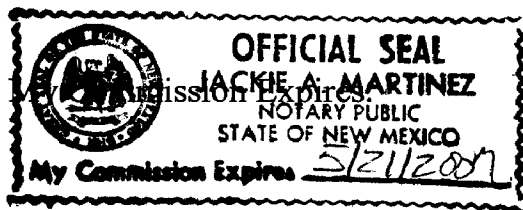
IN WITNESS WHEREOF I have hereunto set my hand and seal this 15 day of Dec, 2004.

William R. Culver (SEAL)  
**William R. CULVER**

State of: New Mexico )  
 ) ss:  
County of: Bernalillo )

On this 15 day of December, 2004, before me personally came the above named **William R. CULVER** personally known to me or satisfactorily proven to be the same individual who executed the foregoing Assignment of his own free will for the use and purpose therein set forth.

Jackie A. Martinez  
Notary Public



IN WITNESS WHEREOF I have hereunto set my hand and seal this \_\_\_\_\_ day of \_\_\_\_\_, 2004.

\_\_\_\_\_  
**Burke E. NELSON** (SEAL)

State of: \_\_\_\_\_ )  
 ) ss:  
County of: \_\_\_\_\_ )

On this \_\_\_\_\_ day of \_\_\_\_\_, 2004, before me personally came the above named **Burke E. NELSON** personally known to me or satisfactorily proven to be the same individual who executed the foregoing Assignment of his own free will for the use and purpose therein set forth.

\_\_\_\_\_  
Notary Public

My Commission Expires:

IN WITNESS WHEREOF I have hereunto set my hand and seal this \_\_\_\_ day of \_\_\_\_\_, 2004.

**(SEAL)**

**William R. CULVER**

State of: \_\_\_\_\_ )

) SS:

County of: \_\_\_\_\_ )

On this \_\_\_\_\_ day of \_\_\_\_\_, 2004, before me personally came the above named **William R. CULVER** personally known to me or satisfactorily proven to be the same individual who executed the foregoing Assignment of his own free will for the use and purpose therein set forth.

**Notary Public**

**My Commission Expires:**

IN WITNESS WHEREOF I have hereunto set my hand and seal this 13 day of \_\_\_\_\_, 2004.

(SEAL)

**Burke E. NELSON**

State of: )

) SS:

County of: \_\_\_\_\_ )

On this \_\_\_\_\_ day of \_\_\_\_\_, 2004, before me personally came the above named **Burke E. NELSON** personally known to me or satisfactorily proven to be the same individual who executed the foregoing Assignment of his own free will for the use and purpose therein set forth.

**Notary Public**

**My Commission Expires:**