

RECORDATION FORM COVER SHEET PATENTS ONLY

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)
Edward J. Bialek; James J. Heimbueger; and
Christopher J. Irwin

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

2. Name and address of receiving party(ies)
Name: Northrop Grumman Corporation
Internal Address: _____

3. Nature of conveyance/Execution Date(s):
Execution Date(s) May 17, 2005

Assignment Merger
 Security Agreement Change of Name
 Joint Research Agreement
 Government Interest Assignment
 Executive Order 9424, Confirmatory License
 Other _____

Street Address: 1840 Century Park East
 City: Los Angeles
 State: California
 Country: USA Zip: 90067

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

4. Application or patent number(s): This document is being filed together with a new application.

A. Patent Application No.(s)
11/079,796

B. Patent No.(s)

Additional numbers attached? Yes No

6. Total number of applications and patents involved: 1

5. Name and address to whom correspondence concerning document should be mailed:
Name: Bruce B. Brunda/Stetina Brunda Garred & Brucker
Internal Address: _____
Street Address: 75 Enterprise, Suite 250
City: Aliso Viejo
State: California Zip: 92656
Phone Number: (949)855-1246
Fax Number: (949)855-6371
Email Address: _____

7. Total fee (37 CFR 1.21(h) & 3.41) \$40.00

Authorized to be charged by credit card
 Authorized to be charged to deposit account
 Enclosed
 None required (government interest not affecting title)

8. Payment Information

a. Credit Card Last 4 Numbers _____
Expiration Date _____

b. Deposit Account Number 19-4330
Authorized User Name Bruce B. Brunda

9. Signature: Bruce B. Brunda May 18, 2005
Signature Date

Bruce B. Brunda Total number of pages including cover sheet, attachments, and documents:
Name of Person Signing

Documents to be recorded (including cover sheet) should be faxed to (703) 306-5995, or mailed to:
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

CH \$40.00 194330 11079796

ASSIGNMENT

WHEREAS, I, Edward J. Bialek, hereinafter referred to as Assignor have invented certain new and useful improvements in **SWITCHED MULTIPLEXER METHOD TO COMBINE MULTIPLE BROADBAND RF SOURCES**, described in an application for United States Letters Patent, executed by me on the date as stated below:

WHEREAS, Northrop Grumman Corporation, a Delaware corporation, having its principal place of business at 1840 Century Park East, Los Angeles, California 90067, hereinafter referred to as Assignee, is desirous of acquiring the entire right, title and interest in, to and under said improvements and said application:

NOW, THEREFORE, in consideration of Assignor=s obligations to Northrop Grumman Corporation, and for other good and valuable consideration, the receipt and sufficiency is hereby acknowledged, Assignor has sold, assigned, transferred and set over, and by these presents does hereby sell, assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns, Assignor=s entire right, title and interest in, to and under said improvements, and said application and all divisions, renewals, continuations, and continuations-in-part thereof, and all United States Letters Patent which may be granted thereon and all reissues and extensions thereof, and all applications for Letters Patent which may hereafter be filed for said improvements in any country or countries foreign to the United States, including the full right to claim for any such application the priority benefits of the International Convention for the Protection of Industrial Property and other priority-conferring treaties, and all Letters Patent which may be granted for said improvements in any country or countries foreign to the United States and all extensions, divisions, continuations, continuations-in-part, renewals and reissues thereof; and Assignor hereby 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 on applications as aforesaid, to issue all Letters Patent for said improvements to said Assignee, its successors, legal representatives and assigns, in accordance with the terms of this instrument;

Assignor hereby acknowledges that at the time of making the improvements herein identified, Assignor was under an obligation to assign to Assignee, Assignor=s entire right, title and interest in, to and under said improvements;

Assignor hereby covenants that Assignor has full right to convey the interest herein assigned, and that Assignor has not executed, and will not execute, any agreement in conflict herewith and that Assignee, Northrop Grumman Corporation, its successors, assigns and other legal representatives shall have the right to hold and enjoy for its and their own use and benefit, to the end of the term or terms for which such Letters Patent shall or may be granted, reissued or extended as fully and completely as the same right or could have been held and enjoyed by Assignor had this Assignment not been made.

Assignor hereby further covenants and agrees to communicate to Assignee, its successors, legal representatives and assigns, any and all facts known to Assignor respecting said improvements; to promptly provide Assignor with all documents relating to said improvements, said invention, and said Letters Patent as may be known or accessible to Assignor; to testify as to the same in any interference or litigation or other legal proceedings related thereto; to sign all lawful papers, execute all extensions, continuations, continuations-in-part, divisional and reissue applications; and to make all rightful oaths or declarations and generally do everything possible to aid Assignee, its successors, legal representatives and assigns in obtaining and enforcing all the rights herein conveyed for said improvements in all countries without further compensation, but at the expense of Assignee, its successors, legal representatives and assigns.

IN WITNESS WHEREOF, the undersigned has executed and delivered this instrument this 17th day of May, 2005, and has executed the referenced patent application on the 17th day of May, 2005.

Edward J. Bialek
Edward J. Bialek

STATE OF New York)
COUNTY OF Erie) ss

On 17 May 2005 before me, Randy C. Fahs, personally appeared Edward J. Bialek, personally known to me B or B proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to this instrument and acknowledge to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument to be the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal

Randy C. Fahs
Notary=s Signature

(Seal)

RANDY C. FAHS
Notary Public, State of New York
Qualified in Niagara County
My Commission Expires October 2, 2005

ASSIGNMENT

WHEREAS, I, James J. Heimbueger, hereinafter referred to as Assignor have invented certain new and useful improvements in **SWITCHED MULTIPLEXER METHOD TO COMBINE MULTIPLE BROADBAND RF SOURCES**, described in an application for United States Letters Patent, executed by me on the date as stated below;

WHEREAS, Northrop Grumman Corporation, a Delaware corporation, having its principal place of business at 1840 Century Park East, Los Angeles, California 90067, hereinafter referred to as Assignee, is desirous of acquiring the entire right, title and interest in, to and under said improvements and said application:

NOW, THEREFORE, in consideration of Assignor=s obligations to Northrop Grumman Corporation, and for other good and valuable consideration, the receipt and sufficiency is hereby acknowledged, Assignor has sold, assigned, transferred and set over, and by these presents does hereby sell, assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns, Assignor=s entire right, title and interest in, to and under said improvements, and said application and all divisions, renewals, continuations, and continuations-in-part thereof, and all United States Letters patent which may be granted thereon and all reissues and extensions thereof, and all applications for Letters Patent which may hereafter be filed for said improvements in any country or countries foreign to the United States, including the full right to claim for any such application the priority benefits of the International Convention for the Protection of Industrial Property and other priority-conferring treaties, and all Letters Patent which may be granted for said improvements in any country or countries foreign to the United States and all extensions, divisions, continuations, continuations-in-part, renewals and reissues thereof; and Assignor hereby 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 on applications as aforesaid, to issue all Letters Patent for said improvements to said Assignee, its successors, legal representatives and assigns, in accordance with the terms of this instrument;

Assignor hereby acknowledges that at the time of making the improvements herein identified, Assignor was under an obligation to assign to Assignee, Assignor=s entire right, title and interest in, to and under said improvements;

Assignor hereby covenants that Assignor has full right to convey the interest herein assigned, and that Assignor has not executed, and will not execute, any agreement in conflict herewith and that Assignee, Northrop Grumman Corporation, its successors, assigns and other legal representatives shall have the right to hold and enjoy for its and their own use and benefit, to the end of the term or terms for which such Letters Patent shall or may be granted, reissued or extended as fully and completely as the same right or could have been held and enjoyed by Assignor had this Assignment not been made.

Assignor hereby further covenants and agrees to communicate to Assignee, its successors, legal representatives and assigns, any and all facts known to Assignor respecting said improvements; to promptly provide Assignor with all documents relating to said improvements, said invention, and said Letters Patent as may be known or accessible to Assignor; to testify as to the same in any interference or litigation or other legal proceedings related thereto; to sign all lawful papers, execute all extensions, continuations, continuations-in-part, divisional and reissue applications; and to make all rightful oaths or declarations and generally do everything possible to aid Assignee, its successors, legal representatives and assigns in obtaining and enforcing all the rights herein conveyed for said improvements in all countries without further compensation, but at the expense of Assignee, its successors, legal representatives and assigns.

IN WITNESS WHEREOF, the undersigned has executed and delivered this instrument this 17th day of May, 2005, and has executed the referenced patent application on the 17th day of May, 2005.

James J. Heimbueger
James J. Heimbueger

STATE OF New York)
COUNTY OF Erie) ss

On 17 May 2005 before me, Randy C. Fahs, personally appeared James J. Heimbueger, personally known to me B or B proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to this instrument and acknowledge to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument to be the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal

Randy C. Fahs
Notary=s Signature

(Seal)

RANDY C. FAHS
Notary Public, State of New York
Qualified in Niagara County
My Commission Expires October 2, 2005

ASSIGNMENT

WHEREAS, I, Christopher J. Irwin, hereinafter referred to as Assignor have invented certain new and useful improvements in SWITCHED MULTIPLEXER METHOD TO COMBINE MULTIPLE BROADBAND RF SOURCES, described in an application for United States Letters Patent, executed by me on the date as stated below;

WHEREAS, Northrop Grumman Corporation, a Delaware corporation, having its principal place of business at 1840 Century Park East, Los Angeles, California 90067, hereinafter referred to as Assignee, is desirous of acquiring the entire right, title and interest in, to and under said improvements and said application:

NOW, THEREFORE, in consideration of Assignor=s obligations to Northrop Grumman Corporation, and for other good and valuable consideration, the receipt and sufficiency is hereby acknowledged, Assignor has sold, assigned, transferred and set over, and by these presents does hereby sell, assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns, Assignor=s entire right, title and interest in, to and under said improvements, and said application and all divisions, renewals, continuations, and continuations-in-part thereof, and all United States Letters patent which may be granted thereon and all reissues and extensions thereof, and all applications for Letters Patent which may hereafter be filed for said improvements in any country or countries foreign to the United States, including the full right to claim for any such application the priority benefits of the International Convention for the Protection of Industrial Property and other priority-conferring treaties, and all Letters Patent which may be granted for said improvements in any country or countries foreign to the United States and all extensions, divisions, continuations, continuations-in-part, renewals and reissues thereof; and Assignor hereby 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 on applications as aforesaid, to issue all Letters Patent for said improvements to said Assignee, its successors, legal representatives and assigns, in accordance with the terms of this instrument:

Assignor hereby acknowledges that at the time of making the improvements herein identified, Assignor was under an obligation to assign to Assignee, Assignor=s entire right, title and interest in, to and under said improvements;

Assignor hereby covenants that Assignor has full right to convey the interest herein assigned, and that Assignor has not executed, and will not execute, any agreement in conflict herewith and that Assignee, Northrop Grumman Corporation, its successors, assigns and other legal representatives shall have the right to hold and enjoy for its and their own use and benefit, to the end of the term or terms for which such Letters Patent shall or may be granted, reissued or extended as fully and completely as the same right or could have been held and enjoyed by Assignor had this Assignment not been made.

Assignor hereby further covenants and agrees to communicate to Assignee, its successors, legal representatives and assigns, any and all facts known to Assignor respecting said improvements; to promptly provide Assignor with all documents relating to said improvements, said invention, and said Letters Patent as may be known or accessible to Assignor; to testify as to the same in any interference or litigation or other legal proceedings related thereto; to sign all lawful papers, execute all extensions, continuations, continuations-in-part, divisional and reissue applications; and to make all rightful oaths or declarations and generally do everything possible to aid Assignee, its successors, legal representatives and assigns in obtaining and enforcing all the rights herein conveyed for said improvements in all countries without further compensation, but at the expense of Assignee, its successors, legal representatives and assigns.

IN WITNESS WHEREOF, the undersigned has executed and delivered this instrument this 17th day of May, 2005, and has executed the referenced patent application on the 17th day of May, 2005.

Christopher J. Irwin
Christopher J. Irwin

STATE OF New York)
COUNTY OF Erie) ss

On 17 May 2005 before me, Randy C. Fahs, personally appeared Christopher J. Irwin, personally known to me or proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to this instrument and acknowledge to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument to be the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal

Randy C. Fahs
Notary=s Signature

(Seal)

RANDY C. FAHS
Notary Public, State of New York
Qualified in Niagara County
My Commission Expires October 2, 2005