

12-08-2000

JC813 U.S. PTO
09/7/0240
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RECORDATION FORM COVER SHEET
PATENTS ONLY

TO: The Commissioner of Patents and Trademarks: Please record the attached original document(s) or copy(ies).

Submission Type

New

Resubmission (Non-Recordation)
Document ID#

Correction of PTO Error
Reel # Frame #

Corrective Document
Reel # Frame #

Conveyance Type

Assignment Security Agreement

License Change of Name

Merger Other

U.S. Government
(For Use ONLY by U.S. Government Agencies)

Departmental File Secret File

Conveying Party(ies)

Mark if additional names of conveying parties attached

Name	Execution Date		
	Month	Day	Year
Name (line 1) <input type="text" value="Newberg, Irwin L."/>	11	07	00
Name (line 2) <input type="text"/>			

Second Party

Name	Execution Date		
	Month	Day	Year
Name (line 1) <input type="text" value="Gallegos, Mary G."/>	11	07	00
Name (line 2) <input type="text"/>			

Receiving Party

Mark if additional names of receiving parties attached

If document to be recorded is an assignment and the receiving party is not domiciled in the United States, an appointment of a domestic representative is attached. (Designation must be a separate document from Assignment.)

Name (line 1)

Name (line 2)

Address (line 1)

Address (line 2)

Address (line 3)

City State/Country Zip Code

Domestic Representative Name and Address

Enter for the first Receiving Party only.

Name

Address (line 1)

Address (line 2)

Address (line 3)

Address (line 4)

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07/2000 MTHAI1 00000124 500616 09110240

FC:581 40.00 CH

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Mail documents to be recorded with required cover sheet(s) information to:
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PATENT
REEL: 011308 FRAME: 0662

09/13 U.S. PTO
09/17/00
11/10/00

Correspondent Name and Address

Area Code and Telephone Number

Name

Address (line 1)

Address (line 2)

Address (line 3)

Address (line 4)

Pages Enter the total number of pages of the attached conveyance document including any attachments. #

Application Number(s) or Patent Number(s)

Mark if additional numbers attached

Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).

Patent Application Number(s)

Patent Number(s)

<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>

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<input type="text"/>	<input type="text"/>	<input type="text"/>

If this document is being filed together with a new Patent Application, enter the date the patent application was signed by the first named executing inventor.

Month Day Year

Patent Cooperation Treaty (PCT)

Enter PCT application number only if a U.S. Application Number has not been assigned.

PCT <input type="text"/>	PCT <input type="text"/>	PCT <input type="text"/>
PCT <input type="text"/>	PCT <input type="text"/>	PCT <input type="text"/>

Number of Properties

Enter the total number of properties involved. #

Fee Amount

Fee Amount for Properties Listed (37 CFR 3.41): \$

Method of Payment:
Deposit Account

Enclosed Deposit Account

(Enter for payment by deposit account or if additional fees can be charged to the account.)

Deposit Account Number: #

Authorization to charge additional fees: Yes No

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. Charges to deposit account are authorized, as indicated herein.

Leonard A. Alkov

11/10/00

Name of Person Signing

Signature

Date

RECORDATION FORM COVER SHEET
CONTINUATION
PATENTS ONLY Page 3

U.S. Department of Commerce
Patent and Trademark Office
PATENT

11/10/00
09/10/00
16813 U.S. PTO

Conveying Party(ies)

Mark if additional names of conveying parties attached

Enter additional Conveying Parties

Execution Date
Month Day Year
11 07 00

Name (line 1) Mika, Robert A.

Name (line 2)

Execution Date
Month Day Year

Name (line 1)

Name (line 2)

Execution Date
Month Day Year

Name (line 1)

Name (line 2)

Receiving Party(ies)

Mark if additional names of receiving parties attached

Enter additional Receiving Party(ies)

Name (line 1)

Name (line 2)

Address (line 1)

Address (line 2)

Address (line 3) City State/Country Zip Code

Name (line 1)

Name (line 2)

Address (line 1)

Address (line 2)

Address (line 3) City State/Country Zip Code

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Application Number(s) or Patent Number(s)

Mark if additional numbers attached

Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).

Patent Application Number(s)

Patent Number(s)

Grid for Patent Application Number(s) with 5 rows and 3 columns of input boxes.

Grid for Patent Number(s) with 5 rows and 3 columns of input boxes.

ASSIGNMENT

WHEREAS, we, as below named joint inventors of the city and state as stated below next to my name, have invented "System and Method for Redirecting a Signal Using Phase Conjugation" for which application for Letters Patent of the United States has been executed by me on this day; and

WHEREAS, RAYTHEON COMPANY, a Delaware Corporation, having its principal place of business in Lexington, Massachusetts, is desirous of acquiring the entire and exclusive right, title and interest in, to and under said invention, said application and any and all Letters Patent that may be granted therefor in the United States and throughout the world;

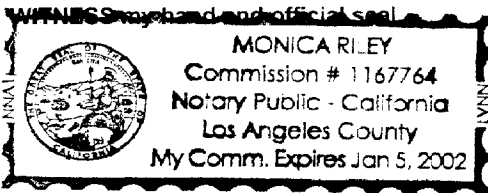
NOW, THEREFORE, in consideration of the obligations voluntarily assumed by me and set forth in an invention agreement between me and my employer, effective the date as stated below next to my name, and other good and valuable consideration, receipt of which is hereby acknowledged, I do hereby sell, assign and transfer to RAYTHEON COMPANY, its successors, assigns or other legal representatives, the entire and exclusive right, title and interest in and to said invention invented by me, to said application and any and all applications which are continuations, continuations-in-part, divisions or substitutes of said application and any and all Letters Patent that may be granted therefor in the United States and throughout the world on any of said applications and to any and all reexaminations, reissues, renewals or extensions of said Letters Patent in the United States and throughout the world for the full term or terms for which said Letters patent may be granted in the United States and throughout the world; authorize and request The Commissioner of Patents and Trademarks of the United States and all foreign countries to issue all such Letters Patent to said RAYTHEON COMPANY, its successors, assigns or other legal representatives; convenient that no assignment, sale, agreement, transfer or encumbrance has been, or will be, made or entered into which would conflict with this assignment, sale and transfer; and agree to communicate to RAYTHEON COMPANY its successors, assigns or other legal representatives, upon request and at no cost or expense to me, any facts known by me respecting said invention, do all lawful acts, including the execution and delivery of all papers and proper oaths and giving of testimony that is deemed necessary or desirable by RAYTHEON COMPANY, its successors, assigns or other legal representatives with regard to said invention for protecting, obtaining, maintaining and enforcing any and all of said Letters Patent in the United States and throughout the world for said invention and for perfecting, affirming, recording and maintaining the title of RAYTHEON COMPANY, its successors, assigns or other legal representatives, and generally cooperate to the fullest extent in all matters pertaining to said invention, and any and all of said Letters Patent and the title thereto in RAYTHEON COMPANY, its successors, assigns or other legal representatives.

IN WITNESS WHEREOF, we have executed this instrument.

FULL NAME OF SOLE OR JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
Irwin L. Newberg	<i>Irwin L. Newberg</i>	11/7/00
RESIDENCE (CITY AND STATE)		CITIZENSHIP
Pacific Palisades, California		USA
POST OFFICE ADDRESS		INVENTION AGREEMENT DATE
702 Palisades Drive, Pacific Palisades, CA 90272		October 11, 1965

STATE OF CALIFORNIA)
 COUNTY OF LOS ANGELES) SS:
 On NOVEMBER 7, 2000 before me, MONICA RILEY, NOTARY PUBLIC, a
 Notary Public in and for said State, personally appeared IRWIN L. NEWBERG

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 the within instrument and acknowledged 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 the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

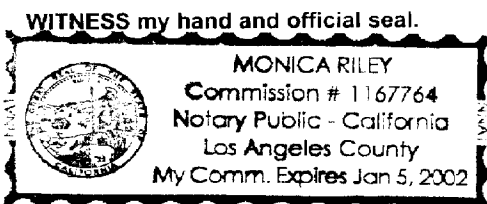


WITNESS my hand and official seal.
 Notary Public *Monica Riley*
 Commission Expires: 1-5-2002

FULL NAME OF SOLE OR JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
Mary G. Gallegos	<i>Mary G. Gallegos</i>	11/7/00
RESIDENCE (CITY AND STATE)		CITIZENSHIP
Agoura Hills, California		USA
POST OFFICE ADDRESS		INVENTION AGREEMENT DATE
29116 Laro Drive, Agoura Hills, CA 91301		March 20, 1972

STATE OF CALIFORNIA)
 COUNTY OF LOS ANGELES) SS:
 On Nov 7, 2000 before me, MONICA RILEY, NOTARY PUBLIC, a
 Notary Public in and for said State, personally appeared MARY G. GALLEGOS

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 the within instrument and acknowledged 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 the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



WITNESS my hand and official seal.
 Notary Public *Monica Riley*
 Commission Expires: 1-5-2002

FULL NAME OF SOLE OR JOINT INVENTOR Robert A. Mika	INVENTOR'S SIGNATURE <i>Robert A. Mika</i>	DATE 11/7/00
RESIDENCE (CITY AND STATE) Manhattan Beach, California	CITIZENSHIP USA	
POST OFFICE ADDRESS 3612 Laurel Avenue, Manhattan Beach, CA 90266	INVENTION AGREEMENT DATE June 3, 1982	

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) SS:
On Nov 7, 2000 before me, MONICA RILEY NOTARY PUBLIC, a
Notary Public in and for said State, personally appeared ROBERT A. MIKA

 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 the within instrument and acknowledged 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 the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Notary Public

Monica Riley
Commission Expires: 1-5-2002

