

Rt

08-30-2001

IEET



101828789

PD-01W044

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies): 08/13/01  
Chad M. Wangsvick; Gary M. Salvail; Mark E. Kusbel  
Additional Name(s) of conveying party(ies) attached?  
yes  no

2. Name and address of receiving party(ies):  
Name: RAYTHEON COMPANY  
Internal Address: Bldg. EO/E1/M/S E150  
P.O. Box 902  
El Segundo, California 90245-0902

3. Nature of Conveyance:  
 Assignment  Merger  
 Security Agreement  Change of Name  
 Other \_\_\_\_\_

Street Address: 2000 E. El Segundo Blvd.  
Bldg. EO/E1/M/S E150  
El Segundo, California 90245-0902  
Additional name(s) & address(es) attached?  yes  no

Execution Date: 08/07/01; 08/07/01; 08/08/01

4. Application number(s) or patent number(s): 09/929189  
If this document is being filed together with a new application, the execution date of the application is: 08/09/01  
A. Patent Application No.(s) | B. Patent No.(s)  
Filing Date: \_\_\_\_\_  
Additional numbers attached?  yes  no

5. Name and address of party to whom correspondence concerning document should be mailed:  
Name: Patent Records Administration  
Internal Address: RAYTHEON COMPANY  
Bldg. EO/E1/ E150  
P.O. Box 902  
El Segundo, California 90245-0902  
Street Address: 2000 E. El Segundo Blvd.  
Bldg. EO/E1/E150  
El Segundo, California 90245-0902

6. Total number of applications and patents involved: [ 1 ]  
7. Total fee (37 CFR 3.41)..... \$40.00  
 Enclosed  
 Authorized to be charged to deposit account  
8. Deposit account number:  
50-0888  
(Attached duplicate copy of this page if paying by deposit account)

DO NOT USE THIS SPACE

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.*  
COLIN M. RAUFER Colin M. Rauffer AUGUST 09, 2001  
Name of Person Signing Signature Date  
Total number of pages comprising cover sheet: [ 3 ]

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

PATENT  
REEL: 012111 FRAME: 0679

J1036 U.S. PTO  
09/929189  
08/13/01

**ASSIGNMENT**PD-01W044  
Page 1 of 3

WHEREAS, I, as below named sole inventor (if only one name is listed below) or joint inventor (if plural names are listed below) of the city and state as stated below next to my name, have invented a(an) **ISOLATING SIGNAL DIVIDER/COMBINER AND METHOD OF COMBINING SIGNALS OF FIRST AND SECOND FREQUENCIES** for which application for Letters Patent of the United States has been executed by me on or before this day, or (if the following is completed) filed on \_\_\_\_\_ as Serial No. \_\_\_\_\_; and

WHEREAS, RAYTHEON COMPANY, (hereinafter referred to as Raytheon), 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, 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, its successors, assigns or other legal representatives; covenant 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, 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, 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, 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, its successors, assigns or other legal representatives.

IN WITNESS WHEREOF, I have executed this instrument.

FULL NAME OF SOLE OR JOINT INVENTOR Chad M. Wangsvick	INVENTOR'S SIGNATURE <i>Chad M. Wangsvick</i>	DATE 8/7/01
RESIDENCE (CITY AND STATE) Tucson, Arizona 85713		INVENTION AGREEMENT DATE APRIL 1997

FULL NAME OF SOLE OR JOINT INVENTOR Gary M. Salvail	INVENTOR'S SIGNATURE <i>Gary Salvail</i>	DATE 8/7/01
RESIDENCE (CITY AND STATE) Tucson, Arizona 85715		INVENTION AGREEMENT DATE August 13, 1982

FULL NAME OF SOLE OR JOINT INVENTOR Mark E. Kusbel	INVENTOR'S SIGNATURE <i>Mark E. Kusbel</i>	DATE 08/08/01
RESIDENCE (CITY AND STATE) Tucson, Arizona 85748		INVENTION AGREEMENT DATE 02/03/77

FULL NAME OF SOLE OR JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
RESIDENCE (CITY AND STATE)		INVENTION AGREEMENT DATE

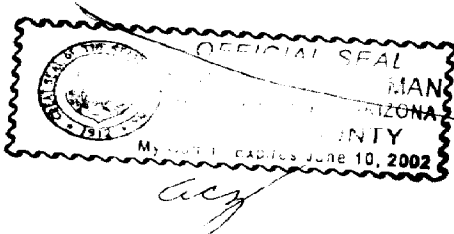
STATE OF Arizona  
COUNTY OF Pima

SS:

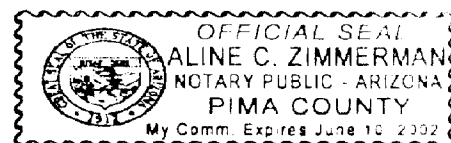
On Aug 7, 2001 before me, Alaine C. Zimmerman  
a Notary Public in and for said State, personally appeared Chad M. Wangsvick  
& Gary Salvail

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.

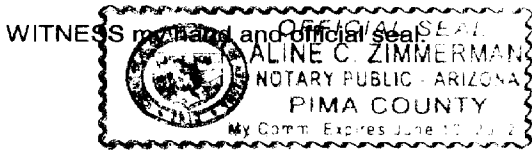


Notary Public Alaine C. Zimmerman



STATE OF Oregon )  
COUNTY OF Deschutes ) SS:  
On Aug 8, 2001 before me, Aline C. Zimmerman  
a Notary Public in and for said State, personally appeared Mark C. Kusel

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.



Notary Public Aline C. Zimmerman

STATE OF \_\_\_\_\_ )  
COUNTY OF \_\_\_\_\_ ) SS:  
On \_\_\_\_\_ before me, \_\_\_\_\_  
a Notary Public in and for said State, personally appeared \_\_\_\_\_

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 \_\_\_\_\_

STATE OF \_\_\_\_\_ )  
COUNTY OF \_\_\_\_\_ ) SS:  
On \_\_\_\_\_ before me, \_\_\_\_\_  
a Notary Public in and for said State, personally appeared \_\_\_\_\_

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 \_\_\_\_\_