01-31-2002



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



101965934

RECORDATION FORM COVER SHEET

		PAIENIS	NLY		
	ssioner of Patents and Trademark		he attached origina	al document(s)	or copy(ies).
Submission T	ype 1.12.12	Conveyance	· -		
X New	1.70.00	X Assignmen	t Securit	ty Agreement	
Resubmissi Document I	ion (Non-Recordation) D# 101874904	License	Change	e of Name	
Correction o	of PTO Error Frame #	Merger	U.S. Gover		
Corrective	Document Frame #	<u>(</u> F	or Use ONLY by U.S. Go Departmental File	vernment Agencies)	et File
		<u> </u>			
Conveying Pa	erty(ies)	X Mark if additi	onal names of ⊳onvey	ring parties attache	ed Execution Date Month Day Year
Name (line 1) Wo	oodington, Walter Gordon				09 04 2001
Name (line 2)					Execution Date
Second Party					Month Day Year
Name (line 1)	elcheccolo, Michael Jose	ph			09 04 2001
Name (line 2)					
Receiving Par	rty		Mark if additional n	names of receiving	parties attached
Name (line 1) R	aytheon Company				f document to be recorded is an assignment and the
Name (line 2)					receiving party is not domiciled in the United States, an appointment
Address (line 1) 1	41 Spring Street				of a domestic representative is attached.
, , , , , , , , , , , , , , , , , , ,	41 Spring Screet				(Designation must be a separate document from
Address (line 2)					Assignment.)
Address (line 3)		MA		02421 Zip Code]
Domestic Rer	oresentative Name and A	State/Cour			
			nter for the first Recei		
Name					
Address (line 1)					
Address (line 2)					
Address (line 3)					
Address (line 4)					
	F	OR OFFICE USE O	DNLY		
10					

Public burden reporting for this collection of information is estimated to average approximately 30 minutes per Cover Sheet to be recorded, including time for reviewing the document and gathering the data needed to complete the Cover Sheet. Send comments regarding this burden estimate to the U.S. Patent and Trademark Office, Chief Information Officer, Washington, D.C. 20231 and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Paperwork Reduction Project (0651-0027), Washington, D.C. 20503. See OMB Information Collection Budget Package 0651-0027, Patent and Trademark Assignment Practice. DO NOT SEND REQUESTS TO RECORD ASSIGNMENT DOCUMENTS TO THIS ADDRESS.

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

FORM PTO-1619B Expires 06/30/99 OMB 0651-0027	Page 2	U.S. Department of Commerce Patent and Trademark Office PATENT
Correspondent Name and Address	Area Code and Telephone Numb	per 781-401-9988
Name Daly, Crowley & Mofford,	LLP	
Address (line 1) 275 Turnpike Street, Sui	te 101	
Address (line 2) Canton, MA 02021-2310		
Address (line 3)		
Address (line 4)		
Pages Enter the total number of pag including any attachments.	es of the attached conveyance do	ecument # 8
Application Number(s) or Patent Num	ber(s) Ma	rk if additional numbers attached
Enter either the Patent Application Number or the Pa		
Patent Application Number(s)		atent Number(s)
09/931,636		
If this document is being filed together with a new Patent signed by the first named executing inventor.	t Application, enter the date the patent app	lication was Month Day Year
Patent Cooperation Treaty (PCT)		
Enter PCT application number	PCT PCT	РСТ
only if a U.S. Application Number has not been assigned.	PCT PCT	PCT
Number of Properties		# 1
Enter the total	al number of properties involved.	# 1
Fee Amount fo	or Properties Listed (37 CFR 3.41): \$ Previously Submitted
Method of Payment: Enclos Deposit Account	sed Deposit Account	
(Enter for payment by deposit account or if additi	ional fees can be charged to the account.) eposit Account Number:	#
Au	uthorization to charge additional fees	: Yes No
Statement and Signature		
To the best of my knowledge and beli attached copy is a true copy of the or indicated herein.		
Christopher S. Daly	(Ny Met	3 Jano 2
Name of Person Signing	Signature	Date

RECORDATION FORM COVER SHEET CONTINUATION PATENTS ONLY

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

		PAI	EN12	ONLY				ALLINI
Conveying Pa	rty(ies)	X M	lark if additi	onal names of con	weving n	arties atta	chod.	
Enter additional C	onveying Parties	···	iain ii aaala	onal names of con	iveying p	arties atta	ciieu	Execution Date Month Day Year
Name (line 1) Pl	eva, Joseph S.							09 04 2001
Name (line 2)								
Ivanie (ilile 2)						-		Execution Date
Name (line 1) Ru	ssell, Mark E.		· —			 		Month Day Year 09 07 2001
` '								09 07 2001
Name (line 2)								Execution Date
Name (line 1) Va	n Deeg II Deebeld							Month Day Year
ivanie (ilile i) įva	n Rees, H. Barteld			<u> </u>				09 04 2001
Name (line 2)								
Receiving Par	ty(ies)			Mark if additional	names of	freceiving	partie	s attached
Enter additional R	eceiving Party(ies)							
Name (line 1)								If document to be recorded is an assignment and the
Name (line 2)								receiving party is not domiciled in the United
· .								States, an appointment of a domestic representative
Address (line 1)								is attached. (Designation must be a separate
Address (line 2)				·				document from Assignment.)
raarooo (me 2)								
Address (line 3)	City		l	State/Country		J L	Zip Code	
r							ip code	• !
Name (line 1)								If document to be recorded is an assignment and the
Name (line 2)				<u> </u>				receiving party is not domiciled in the United
								States, an appointment of a domestic representative is
Address (line 1)								attached. (Designation must be a separate document from
Address (line 2)								Assignment.)
[7		
Address (line 3)	City			State/Country			Zip Co	ode
	umber(s) or Patent N			Mark if addit				
	Patent Application Number or		nt Number	(DO NOT ENTER				ı
Pat	ent Application Number	(s)	——, l	Γ		Patent N	lumbe	er(s)
				<u> </u>				
				L	J 			
								
1								1

RECORDATION FORM COVER SHEET CONTINUATION PATENTS ONLY

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

		FAILNIS			
Conveying Pa		Mark if addition	nal names of conveying p	arties attached	Execution Date
Enter additional Co	onveying Parties				Month Day Year
Name (line 1) Har	nson, James T.				09 07 2001
Name (line 2)					
2,				·	Execution Date Month Day Year
Name (line 1)					Worth Day Tear
Name (me i)					
Name (line 2)					Execution Date
					Month Day Year
Name (line 1)					
Name (line 2)					
Receiving Par			Mark if additional names of	of receiving partie	es attached
Enter additional R	eceiving Party(ies)				7 If decomposites he recorded
Name (line 1)					If document to be recorded is an assignment and the
Name (line 2)					receiving party is not domiciled in the United
(me 2)					States, an appointment of a domestic representative
Address (line 1)					is attached. (Designation must be a separate
A 11>					document from Assignment.)
Address (line 2)					
Address (line 3)			State/Country	Zip Coo	40
,	City		State/Country		16
Name (line 1)					If document to be recorded is an assignment and the
·					receiving party is not
Name (line 2)					domiciled in the United States, an appointment of a
Address (line 1)					domestic representative is attached. (Designation must
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					be a separate document from Assignment.)
Address (line 2)					
Address (line 3)					
	City		State/Country		Code
Application N	lumber(s) or Patent	Number(s)	Mark if additional nu		ama proporty)
	e Patent Application Number		(DO NOT ENTER BOTH II	Patent Num	
Pa	ntent Application Numb	er(s)		atent rum	DCI(3)
			1		
					ŧ

TO: The Commissioner of Patents and Trademar	U.S. Department of Commerce Patent and Trademark Office PATENT DATION FORM COVER SHEET PATENTS ONLY rks: Please record the attached original document(s) or copy(ies).
Submission Type	Conveyance Type
X New	X Assignment Security Agreement
Resubmission (Non-Recordation) Document ID#	License Change of Name
Correction of PTO Error	Merger Other
Reel # Frame # Corrective Document	U.S. Government (For Use ONLY by U.S. Government Agencies)
Reel # Frame #	Departmental File Secret File
Conveying Party(ies)	Mark if additional names of conveying parties attached Execution Date Month Day Year
Name (line 1) Woodington, Walter Gordon	
Name (line 2)	Execution Date
Second Party	Month Day Year
Name (line 1) Delcheccolo, Michael Jose	eeph 09 04 2001
Name (line 2)	
Receiving Party	Mark if additional names of receiving parties attached
Name (line 1)	If document to be recorded is an assignment and the
Name (line 2)	receiving party is not domiciled in the United
Addison	States, an appointment of a domestic
Address (line 1)	representative is attached. (Designation must be a separate document from
Address (line 2)	Assignment.)
Address (line 3)	
Domestic Representative Name and A	State/Country Zip Code
	Enter for the first Receiving Party only.
Name	
Address (line 1)	
Address (line 2)	
Address (line 3)	
Address (line 4)	
	FOR OFFICE USE ONLY

Public burden reporting for this collection of information is estimated to average approximately 30 minutes per Cover Sheet to be recorded, including time for reviewing the document and gathering the data needed to complete the Cover Sheet. Send comments regarding this burden estimate to the U.S. Patent and Trademark Office, Chief Information Officer, Washington, D.C. 20231 and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Paperwork Reduction Project (0651-0027), Washington, D.C. 20503. See OMB Information Collection Budget Package 0651-0027, Patent and Trademark Assignment Practice. DO NOT SEND REQUESTS 10 RECORD ASSIGNMENT DOCUMENTS TO THIS ADDRESS.

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

FORM PTO-1619B Expires 06/30/99 OMB 0651-0027	Page 2	U.S. Department of Commerce Patent and Trademark Office PATENT
Correspondent Name and Address	Area Code and Telephone Number	er 781-401-9988
Name Daly, Crowley & Mofford,	LLP	
Address (line 1) 275 Turnpike Street, Su	ite 101	
Address (line 2) Canton, MA 02021-2310		
Address (line 3)		
Address (line 4)		
Pages Enter the total number of pagincluding any attachments.	ges of the attached conveyance do	cument # 8
Application Number(s) or Patent Num	nber(s) Mar	k if additional numbers attached
Enter either the Patent Application Number or the 2	atent Number (DO NOT ENTER BOTH numl	bers for the same property).
Patent Application Number(s)	Pa	tent Number(s)
If this document is being filed together with a <u>new</u> Pater signed by the first named executing inventor.	nt Application, enter the date the patent appli	ication was <u>Month Day Year</u>
Patent Cooperation Treaty (PCT)		
Enter PCT application number	PCT PCT	PCT
only if a U.S. Application Number has not been assigned.	PCT PCT	РСТ
Number of Properties	al number of properties involved.	# 1
Fee Amount Fee Amount f	or Properties Listed (37 CFR 3.41)	\$ 40.00
Method of Payment: Enclo	sed X Deposit Account	¥ [
Deposit Account		
(Enter for payment by deposit account or if addit D	eposit Account Number:	# 50-0845
A	authorization to charge additional fees:	Yes X No
Statement and Signature		
To the best of my knowledge and be attached copy is a true copy of the or indicated herein.		
Christopher S. Daly		

Signature

Name of Person Signing

PATENT REEL: 012511 FRAME: 0923

Date

RECORDATION FORM COVER SHEET CONTINUATION PATENTS ONLY

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

Conveying Par	ty(ies) X Mark if additional names of conveying parties attached	
Enter additional Co		Execution Date Month Day Year
Name (line 1) Ple	eva, Joseph S.	09 04 2001
Name (line 2)		
Name (line 2)		Execution Date
Name (line 1) Rus	ssell, Mark E.	Month Day Year 09 07 2001
` '		1
Name (line 2)		Execution Date Month Day Year
Name (line 1) Var	Rees, H. Barteld	09 04 2001
Name (line 2)		
Receiving Par	ty(ies) Mark if additional names of receiving parti	es attached
Enter additional Re		
Name (line 1)		If document to be recorded is an assignment and the
N (v a) [receiving party is not domiciled in the United
Name (line 2)		States, an appointment of a domestic representative
Address (line 1)		is attached. (Designation must be a separate
Address (line 2)		document from Assignment.)
,, ,,,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Address (line 3)	City State/Country Zip Co	de
ſ		If document to be recorded
Name (line 1)		is an assignment and the receiving party is not
Name (line 2)		domiciled in the United States, an appointment of a
Address (line 1)		domestic representative is attached. (Designation must
Address (iiile i)		be a separate document from Assignment.)
Address (line 2)		,
Address (line 3)		
	City State/Country Zip umber(s) or Patent Number(s) Mark if additional numbers attached	Code
Enter either the	Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the s	same property).
	tent Application Number(s) Patent Num	

RECORDATION FORM COVER SHEET CONTINUATION PATENTS ONLY

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

Conveying Party(ies	s)	
Enter additional Conveying		Execution Date Month Day Year
	James T.	09 07 2001
Name (line 2)		
rediric (iiie 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		
Name (line 1)		If document to be recorded is an assignment and the
Name (line 2)		receiving party is not domiciled in the United States, an appointment
		of a domestic representative is attached. (Designation
Address (line 1)		must be a separate document from
Address (line 2)		Assignment.)
Address (line 3)		
	City State/Country Zip Code	
Name (line 1)		If document to be recorded is an assignment and the
Name (line 2)		receiving party is not domiciled in the United
		States, an appointment of a domestic representative is
Address (line 1)		attached. (Designation must be a separate document from
Address (line 2)		Assignment.)
Address (line 3)		
	cr(s) or Patent Number(s) State/Country State/Country Mark if additional numbers attached	DOB
	Application Number or the Patent Number (DO NOT ENTER BO'TH numbers for the sar	me property).
	pplication Number(s) Patent Number	
-		1

PATENT

Appln. No. Not Yet Assigned

Attorney Docket No.: RTN-145PUS Raytheon Case No.: 00E172

ASSIGNMENT

Whereas we, the undersigned, Walter Gordon Woodington, Michael Joseph Delcheccolo, Joseph S. Pleva, Mark E. Russell, H. Barteld Van Rees and James T. Hanson, hereby have made certain inventions or discoveries (or both) set forth in an application for Letters Patent of the United States of America entitled RADAR TRANSMITTER CIRCUITRY AND TECHNIQUES, identified as Attorney Docket No. RTN-145PUS, which application was filed on August 16, 2001 and assigned Application No.09/931,636. In the event that the filing date and/or Application No. are not entered above at the time we executed this document, and if such information is deemed necessary, we hereby authorize and request our attorneys at Daly, Crowley & Mofford, LLP, 275 Turnpike Street, Suite 101, Canton, MA 02021-2310, to insert above the filing date and/or Application No. of said application.

Whereas, RAYTHEON COMPANY, a Massachusetts Corporation having a place of business at 141 Spring Street, Lexington, MA 02421, and which, together with its successors and assigns, is hereinafter called "Assignee," is desirous of acquiring the title, rights, benefits and privileges hereinafter recited:

Now, therefore, for valuable consideration furnished by Assignee to me, receipt and sufficiency of which I hereby acknowledge, I hereby, without reservation:

- 1. Assign, transfer and convey to Assignee the entire right, title and interest in and to said inventions and discoveries, said United States patent application, any and all other patent applications on said inventions and discoveries in whatsoever countries, including all utility, divisional, renewal, substitute, continuation, reissue and Convention applications based in whole or in part upon said inventions or discoveries, said United States patent application or upon said applications, and any and all Letters Patent, reissues, reexaminations, and extensions of Letters Patent granted for said inventions and discoveries or upon said applications, and every priority right that is or may be predicated upon or arise from said inventions, said discoveries, said applications and said Letters Patent;
- 2. Authorize Assignee to file patent applications in any or all countries on any or all of said inventions and discoveries in my name or in the name of Assignee or otherwise as Assignee may deem advisable, under the International Convention or otherwise;
- 3. Authorize and request the Commissioner of Patents and Trademarks of the United States of America and the empowered officials of all other governments to issue or transfer all said Letters Patent to Assignee, as assignee of the entire right, title and interest therein or otherwise as Assignee may direct;

PATENT

Attorney Docket No.: RTN-145PUS

Raytheon Case No.: 00E172

4. Warrant that I have not knowingly conveyed to others any right in said inventions, discoveries, applications or patents or any license to use the same or to make, use or sell anything embodying or utilizing any of said inventions or discoveries; and that I have good right to assign the same to Assignee without encumbrance;

5. Bind my heirs, legal representatives and assigns, as well as myself, to do, upon Assignee's request and at Assignee's expense, but without additional consideration to me or them, all acts reasonably serving to assure that the said inventions and discoveries, the said patent applications and the said Letters Patent shall be held and enjoyed by Assignee as fully and entirely as the same could have been held and enjoyed by me, my heirs, legal representatives and assigns if this assignment had not been made; and particularly to execute and deliver to Assignee all lawful application documents including petitions, specifications, and oaths, and all assignments, disclaimers, and lawful affidavits in form and substance as may be requested by Assignee; to communicate to Assignee all facts known to me relating to said inventions and discoveries or the history thereof; and to furnish Assignee with any and all documents, photographs, models, samples and other physical exhibits in my control or in the control of my heirs, legal representatives or assigns which may be useful for establishing the facts of my conceptions, disclosures, and reduction to practice of said inventions and discoveries.

In testimony of which we have executed this Assignment as an instrument under seal on the dates indicated next to my name.

State or Commonwealth of Massachusetts	
County Middle sex	
Dated 9/4/51	Walter God W- 52
	Walter Gordon Woodington

On this <u>Uble</u> day of <u>September</u>, 2001, before me appeared Walter Gordon Woodington, to me known and known to me as the person described in and who executed the foregoing instrument, and he/she acknowledged the same to be his/her free act and deed.

Notary Public

Attorney Docket No.: RTN-145PUS

Raytheon Case No.: 00E172

State or Commonwealth of Massac has ells	
County Millesex	
Dated	Massile
	Michael Joseph Delcheccolo
On this day of day of Delcheccolo, to me known and known to me as the foregoing instrument, and he/she acknowledged the	•
State or Commonwealth of Massachusetts	
County Mildle sex	
Dated 7/4/c j	Joseph S. Pleva
On this 4th day of Sentential	2001 before me appeared Joseph S. Pleya
to me known and known to me as the person descrinstrument, and he/she acknowledged the same to	ibed in and who executed the foregoing
	bed in and who executed the foregoing be his/her free act and deed.
instrument, and he/she acknowledged the same to	bed in and who executed the foregoing be his/her free act and deed.
State or Commonwealth of Massachusetts County Middlesex	bed in and who executed the foregoing be his/her free act and deed.
instrument, and he/she acknowledged the same to state or Commonwealth of Massachus efts	bed in and who executed the foregoing be his/her free act and deed.
State or Commonwealth of Massachus etts County Middlesex Dated 9/7/01	Notary Public Mark E. Russell
State or Commonwealth of Massachus etts County Middlesex Dated 9/7/01 On this 7th day of September to me known and known to me as the person description.	ibed in and who executed the foregoing be his/her free act and deed. Notary Public Mark E. Russell

PATENT

Attorney Docket No.: RTN-145PUS

Raytheon Case No.: 00E172

	J 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
State or Commonwealth of Massachusetts	S .
County Millesex	ŧ
Dated 9/4/01	HIMA
	H. Barteld Van Rees
On this 4th day of Scythanher. Rees, to me known and known to me as the person instrument, and he/she acknowledged the same to be	
	Notary Public
State or Commonwealth of Massachuse Hs County Millesex	
Dated 9/7/01	James T. Hanson
	James T. Hanson
On this 7th day of September Hanson, to me known and known to me as the personnegoing instrument, and he/she acknowledged the	on described in and who executed the same to be his/her free act and deed.
	Peto Durcheros
	Notary Public
COSEDVED OF TENT EILES of 145 pur (00E172 Page) Generator	Nrtn-145nus assignment doc

.1

PATENT REEL: 012511 FRAME: 0929

RECORDED: 01/18/2002