PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Richard W. Nichols	12/04/2008
James S. Mason	01/05/2009
Gilbert M. Shows	08/19/2008
Joel C. Roper	08/20/2008
Raymond D. Eppich	08/20/2008
Gustavo A. Burnum	09/02/2008
Ike Chang	12/03/2008

RECEIVING PARTY DATA

Name:	Raytheon Company
Street Address:	870 Winter Street
City:	Waltham
State/Country:	MASSACHUSETTS
Postal Code:	02451

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	12288635

CORRESPONDENCE DATA

 Fax Number:
 (781)522-6465

 Phone:
 781-522-3051

Email: kate_e_emerson@raytheon.com

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

via US Mail.

Correspondent Name: Kate Emerson c/o Raytheon Company

Address Line 1: 870 Winter Street

Address Line 4: Waltham, MASSACHUSETTS 02451

ATTORNEY DOCKET NUMBER: 07E018-US-NP

501762000 REEL: 027416 FRAME: 0240

12288635

NAME OF SUBMITTER:	Robert P. Hayter
Total Attachments: 8 source=07E018 Assignment#page1.tif source=07E018 Assignment#page2.tif source=07E018 Assignment#page3.tif source=07E018 Assignment#page4.tif source=07E018 Assignment#page5.tif source=07E018 Assignment#page6.tif source=07E018 Assignment#page7.tif source=07E018 Assignment#page8.tif	

ASSIGNMENT

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Attorney Docket No: PD-07E018

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)

ACTIVE ELECTRONICALLY SCANNED ARRAY ANTENNA FOR SATELLITE COMMUNICATIONS

for which application for Letters Patent of the United	States has been	executed by	me, or	(if the following
is completed) was filed as Application No.	on	*************************	, and	

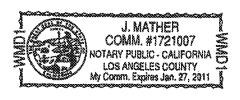
WHEREAS, RAYTHEON COMPANY (hereinafter referred to as RAYTHEON), a Delaware corporation, having its principal place of business in Waltham, Massachusetts, is desirous of acquiring the entire and exclusive right, title and interest in, to and under said invention, said application and any and all Letters Patent that may be granted therefore 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 therefore 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 Director of the United States Patent and Trademark Office 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.

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IN WITNESS WHEREOF, I have executed this instrument

FULL NAME OF SOLE OR JOINT INVENTOR Richard W. Nichols	WENTOR'S SIGNATORE	12/4/08
RESIDENCE (CITY AND STATE) Manhattan Beach, CA		INVENTION AGREEMENT DATE
STATE OF CALIFORNIA COUNTY OF US OWY !!	\$ SS:	
Notacy Public nersonally appeared	efore me. J. Mather Liciand W. Niclusts actory evidence to be the person whose	a
to the within instrument and acknowled capacity, and that by his signature on	iged to me that he executed the same the instrument the person or the entity	in his authorized
the person acted, executed the instrum	ent.	
I certify under PENALTY OF PERJURY paragraph is true and correct.	under the laws of the State of Californ	ia that the foregoing
WITNESS my hand and official seal.	Notary Public Type Natary	Mame Name
[seal]	· , spa , ed ray,	



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IN WITNESS WHEREOF, I have executed this instrument.

	· · · · · · · · · · · · · · · · · · ·
FULL NAME OF SOLE OR JOINT INVENTOR'S SIGNATURE// NVENTOR James S. Mason Wick	1/S/2009
RESIDENCE (CITY AND STATE) Richardson, TX	INVENTION AGREEMENT DATE
STATE OF TEXAS) ss:	
On JANUALY 5+++ Zoes before me JEMES MISON, a Notary F	oublic, personally
ppeared, who prove	ed to me on the basis
of satisfactory evidence to be the person whose name is subscribed to the within inc	strument and
icknowledged to me that he executed the same in his authorized capacity, and that	by his signature on
he instrument the person or the entity upon behalf of which the person acted, exec	uted the instrument.
certify under PENALTY OF PERJURY under the laws of the State of TEXAS Notary Public STATE OF TEXAS Notary Public STATE OF TEXAS Notary Public STATE OF TEXAS Notary 7, 2009	that the

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IN WITNESS WHEREOF, I have executed this instrument.

FULL NAME OF SOLE OR JOINT	INVENTOR'S SIGNATURE	DATE SIGNED
INVENTOR Gilbert M. Shows	Silvet M Shows	8/19/08
RESIDENCE (CITY AND STATE) Plano, TX		INVENTION AGREEMENT DATE
STATE OF TEXAS COUNTY OF COLLINI	} ss:	
On August 19, 2008 2008 before appeared Cilbert M. Shows of satisfactory evidence to be the person was acknowledged to me that he executed the the instrument the person or the entity upo	who prove whose name is subscribed to the within instance in his authorized capacity, and that	ed to me on the basis strument and by his signature on
I certify under PENALTY OF PERJURY un foregoing paragraph is true and correct.	der the laws of the State of <u>TEXAS</u>	that the
(seal) VICKY L. BOWEN Notary Public, State of Tex. My Commission Exp. 08-19-2		S. Bowln

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IN WITNESS WHEREOF, I have executed this instrument.

FULL NAME OF SOLE OR JOINT	INVENTOR'S SIGNATURE	DATE SIGNED
INVENTOR Joel C. Roper	Jell Rope	8/20/08
RESIDENCE (CITY AND STATE) Plano, TX		INVENTION AGREEMENT DATE
STATE OF TEXAS COUNTY OF COLLIN) } SS:	
appeared Joyl C. Roper of satisfactory evidence to be the person acknowledged to me that he executed the	whose name is subscribed to the within in same in his authorized capacity, and the on behalf of which the person acted, exec	red to me on the basis nstrument and at by his signature on
I certify under PENALTY OF PERJURY of foregoing paragraph is true and correct.	under the laws of the State of TEXAS	that the
VICKY L. BOWEN Notary Public, State of Texas My Commission Exp. 05-19-2012	Notary Public <u>) LC Ko j</u> Type Notary N	Hy Bowln

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IN WITNESS WHEREOF, I have executed this instrument.

FULL NAME OF SOLE OR JOINT	INVENTOR'S SIGNATURE	DATE SIGNED
INVENTOR	. 0 3 .	8/20/08
Raymond D. Eppich	Kaymer O. Fried	0120100
RESIDENCE (CITY AND STATE) Plano, TX	00000000000000000000000000000000000000	INVENTION AGREEMENT DATE
STATE OF TRXSS COUNTY OF OG 1/95) SS:	
On August 70, 2008 bef appeared Raymond Deas Exof satisfactory evidence to be the person vacknowledged to me that he executed the the instrument the person or the entity upon	who provents who provents are subscribed to the within it same in his authorized capacity, and the	ved to me on the basis enstrument and at by his signature on
I certify under PENALTY OF PERJURY un foregoing paragraph is true and correct.	nder the laws of the State of <u>Texaz</u>	that the
WITNESS my hand and official seal.	Notary Public <u>The Loc</u> Type Notary (explinites
Stat with the	Type notary (DY WINTERS B Many Public B E OF TEXAS L Dp. 05/29/2009	yenne .

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IN WITNESS WHEREOF, I have executed this instrument.

	OR'S SIGNATURE	DATE SIGNED
INVENTOR Gustavo A. Burnum	74/1	- 2 Sept 2000
Gustavo A. Bulliulli	for how I want from	- 2 square
RESIDENCE (CITY AND STATE)	nnnnsvvvii000000000000000000000000000000	INVENTION AGREEMEN
Athens, GA		DATE
STATE OF GEORGIA) 	
COUNTY OF ATHEMS- CLARKE) SS:	
COUNTY OF NINEWS- CLARKE	· · · · · · · · · · · · · · · · · · ·	
On 2 SEPTEMBER, 2008 before me, EL	<u>rza вети 6. моктой</u> , a Notary I	Public, personally
appeared Gustavo Abolfo Buahlua	who prove	ed to me on the basis
of satisfactory evidence to be the person whose name	ne is subscribed to the within in	strument and
acknowledged to me that he executed the same in h	is authorized capacity, and tha	t by his signature on
the instrument the person or the entity upon behalf of		
I certify under PENALTY OF PERJURY under the la	ws of the State of George	that the
foregoing paragraph is true and correct.		
WITNESS my hand and official seal.		,
	Notary Public <u></u> 点见tts	125
	Type Notary Na	ame
[seal]		
	Elizaseth G. M Notory Pub	
	Oconee Con State of Geo	uniy
	My Commission Expire	· · · · · · · · · · · · · · · · · · ·
	Street	SECTION OF THE PROPERTY OF THE

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IN WITNESS WHEREOF, I have executed this instrument.

FULL NAME OF SOLE OR JOINT	INVENTOR'S SIGNATURE	DATE SIGNED
INVENTOR Ike Chang		12/3/08
inc Oneing	de le	14/5/08
RESIDENCE (CITY AND STATE)		INVENTION AGREEMENT
Santa Monica, CA		DATE
	vacessaaaev********************************	THE THE PROPERTY OF THE PROPER
STATE OF CALIFORNIA) ss:	
COUNTY OF LDS PINERES		
	SINE	TES
On <u>DECEMBER 340</u> , 2008 before me, ANDREW STEVEN, a Notary Public, personally		
appeared <u>IKE CHANE</u> , who proved to me on the basis		
of satisfactory evidence to be the person whose name is subscribed to the within instrument and		
acknowledged to me that he executed the same in his authorized capacity, and that by his signature on		
the instrument the person or the entity upon behalf of which the person acted, executed the instrument.		
I certify under PENALTY OF PERJURY under the laws of the State of CALIOPNIA that the		
foregoing paragraph is true and correct.		
WITNESS my hand and official seal.	· · · · · · · · · · · · · · · · · · ·	,
	Notary Public	The state of the s
	Type Notary N	
[seal]	u. nr m	STEVEN SIFVENTES
Jackson Control Contro	and a	
ANDREW STEVEN SIFUE COMM. #1765516		
NOTARY PUBLIC - CALIFOR LOS ANGELES COUNTY	NIA &	
My Comm. Expires Sept. 2, 2011		

PATENT REEL: 027416 FRAME: 0249

RECORDED: 12/20/2011