PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT2865983

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
POWERWAVE TECHNOLOGIES, INC.	05/22/2013

RECEIVING PARTY DATA

Name:	P-WAVE HOLDINGS, LLC
Street Address:	10877 WILSHIRE BOULEVARD
Internal Address:	18TH FLOOR
City:	LOS ANGELES
State/Country:	CALIFORNIA
Postal Code:	90024

PROPERTY NUMBERS Total: 4

Property Type	Number
Application Number:	13454984
Application Number:	13454951
Application Number:	13715449
Application Number:	13715634

CORRESPONDENCE DATA

Fax Number: (207)253-4531

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ATTORNEY DOCKET NUMBER:	PWH_ASSIGN
NAME OF SUBMITTER:	CHRIS A. CASEIRO
SIGNATURE:	/Chris A. Caseiro/
DATE SIGNED:	05/21/2014

Total Attachments: 26
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ASSIGNMENT OF PATENTS

This Assignment of Patents (this "Assignment") is made as of May 22, 2013, by and between POWERWAVE TECHNOLOGIES, INC., a Delaware corporation ("Assignor"), and P-WAVE HOLDINGS, LLC, a Delaware limited liability company ("Assignee"). Capitalized terms used herein but not otherwise defined herein shall have the meanings ascribed to them in that certain Asset Purchase Agreement, dated as of May 13, 2013, by and among Seller and Purchaser (the "Asset Purchase Agreement").

WHEREAS, the Assignor is the owner of all right, title and interest in and to the Patents including those listed on the attached Schedule A, and one or more inventions described in the Patent applications listed on the attached Schedule A (collectively, the "Patents and Patent Applications");

WHEREAS, Assignor and Assignee have entered into that certain Asset Purchase Agreement, dated as of May 13, 2013, (the "Asset Purchase Agreement"); and

WHEREAS, pursuant to the Asset Purchase Agreement, Assignor has agreed to sell, transfer, assign and convey to Assignee, and Assignee has agreed to purchase and acquire from Assignor, the Patents and Patent Applications.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which hereby are acknowledged:

1. Assignor hereby sells, assigns and transfers to Assignee its entire right, title and interest in and to the Patent and Patent Applications, including but not limited to worldwide patent rights, any and all registrations and applications relating thereto, and any renewals, reissues, extensions, continuations and divisionals thereof, and in and to all income, royalties, damages, claims and payments now or hereafter due or payable with respect thereto, the underlying inventions claimed therein, and all priority rights, convention rights and other benefits accruing or to accrue with respect to the filing of applications for patents or the issuance of patents in all countries in respect of the Patent and Patent Applications, and in and to all causes of action, either in law or in equity for past, present or future infringement, and in and to all rights corresponding to the foregoing throughout the world.

2. Assignor agrees to execute all documents and assist in all proceedings (at the sole cost and expense of Assignee) to perfect, register or record the rights of the Assignee to the Patent and Patent Applications as Assignee may reasonably deem necessary or appropriate. If Assignor does not, within fifteen (15) days of presentment, return the requested executed documents, then Assignee is hereby granted a limited power of attorney to execute all such documents on behalf of Assignor. This power of attorney is coupled with an interest and is irrevocable.

3. Assignor hereby authorizes and requests the Director of the United States Patent and Trademark Office, and the corresponding entities or agencies in any applicable countries outside the United States, to record this Assignment and issue such letters patent as shall be

granted upon the Patent and Patent Applications, or applications based thereon, to Assignee, its successors and assigns.

4. This Assignment shall be governed by, construed and enforced in accordance with the laws of the State of New York without regard to any applicable conflicts of law rules or principles.

6. This Assignment may be executed (including by facsimile or other electronic transmission (e.g., portable data format)) with counterpart signature pages or in multiple counterparts, all of which shall be considered one and the same agreement.

[SIGNATURES APPEAR ON FOLLOWING PAGE]

IN WITNESS WHEREOF, Assignor and Assignee have caused this Assignment to be executed by its duly authorized representatives on the day and year first above written.

ASSIGNOR:

POWERWAVE TECHNOLOGIES, INC.

By:_____
Name: Bradley Dietz
Title: Chief Restructuring Officer

ASSIGNEE:

P-WAVE HOLDINGS, LLC

By:_____
Name:
Title:

IN WITNESS WHEREOF, Assignor and Assignee have caused this Assignment to be executed by its duly authorized representatives on the day and year first above written.

ASSIGNOR:

POWERWAVE TECHNOLOGIES, INC.

By:_____
Name: Bradley Dietz
Title: Chief Restructuring Officer

ASSIGNEE:

P-WAVE HOLDINGS, LLC

By: Craig Brooks
Name: Craig Brooks
Title: Vice President

[Signature Page to Assignment of Patents]

Schedule A

Patents and Patent Applications

See attached.

Patent #	Application #	Status	Public. #(US PTO)	Country / Region	Issue Date	Filing Date	Publication Date	Title of the Patent
6018319	-352918	Granted	US6018319	United States of America	1/25/2000	1/23/1998	1/25/2000	Antenna element
1334649	741564	Granted	WO0235902	Sweden	8/13/2003	10/27/2000	5/2/2002	Shielded housing
519892	1007341	Granted	SE0004658	Sweden	4/22/2003	12/15/2000	6/16/2002	Method for tuning a radio filter and a system for tuning a radio filter
1352470	1270954.9	Granted	EP1352470	European Patent Convention	2/11/2009	12/12/2001	10/15/2003	Method for tuning a radio filter and a system for tuning a radio filter
	1270954.9	Allowed	EP1352470	France		12/12/2001	10/15/2003	Method for tuning a radio filter and a system for tuning a radio filter
	1270954.9	Allowed	EP1352470	Germany		12/12/2001	10/15/2003	Method for tuning a radio filter and a system for tuning a radio filter
1352470	1270954.9	Granted	EP1352470	United Kingdom	3/25/2009	12/12/2001	10/15/2003	Method for tuning a radio filter and a system for tuning a radio filter
ZL01817989.4	1817989.4	Granted		China (Peoples Republic)	11/23/2005	4/25/2003		Shielded housing
CN1244199C	1820539.9	Granted	1481614	China (Peoples Republic)	3/1/2006	12/12/2001	3/10/2004	Method for tuning a radio filter and a system for tuning a radio filter
1334649	1965808.7	Granted	EP1334649	European Patent Convention	12/17/2008	9/12/2001	8/13/2003	Shielded housing
1334649	1965808.7	Granted	EP1334649	France	12/17/2008	9/12/2001	8/13/2003	Shielded housing
60137072.4	1965808.7	Granted	EP1334649	Germany	12/9/2008	9/12/2001	8/13/2003	Shielded housing
	1965808.7	Allowed	EP1334649	Sweden		9/12/2001	8/13/2003	Shielded housing
1334649	1965808.7	Granted	EP1334649	United Kingdom	3/25/2009	9/12/2001	8/13/2003	Shielded housing
	4102678.1	Pending		Hong Kong		4/15/2004		Method for tuning a radio filter and a system for tuning a radio filter
HK1060472	4103395.1	Granted		Hong Kong	3/17/2006	5/14/2004	6/8/2004	Shielded housing
5374905	08/087,764	Granted		United States of America	12/20/1994	7/9/1993		Phase Locked Loop Motor Control Circuit for Tuning Cavity Resonator
5809398	08/648,027	Granted		United States of America	9/15/1998	5/14/1996		Channel-selective repeater
5821811	08/724,759	Granted		United States of America	10/13/1998	10/3/1996		Bypass device in an amplifier unit
5949303	08/750,714	Granted		United States of America	9/7/1999	12/17/1996		Movable dielectric body for controlling propagation velocity in a feed line
6009324	08/796,691	Granted		United States of America	12/28/1999	3/4/1997		Method and device for monitoring a mobile telephone repeater
6008763	08/854,660	Granted		United States of America	12/28/1999	5/12/1997		Flat antenna
6020861	08/865,068	Granted		United States of America	2/1/2000	5/29/1997		Elongated antenna
5987304	08/865,940	Granted		United States of America	11/16/1999	5/30/1997		Repeater with variable bandwidth
6002311	08/956,786	Granted		United States of America	12/14/1999	10/23/1997		Dielectric TM mode resonator for RF filters
6246727	09/109,746	Granted		United States of America	6/12/2001	7/6/1998		Method and system for tuning resonance modules
6283425	09/260,016	Granted		United States of America	9/4/2001	3/2/1999		Mounting bracket
6198908	09/261,173	Granted		United States of America	3/6/2001	3/1/1999		SYSTEM AND A METHOD FOR TRANSFER OF A DIGITAL INFORMATION CARRYING SIGNAL
6005522	09/285,071	Granted		United States of America	12/21/1999	4/2/1999		An antenna device with two radiating elements having an adjustable phase difference between the radiating elements
6222428	09/332,976	Granted		United States of America	4/24/2001	6/15/1999		Tuning assembly for a dielectrical resonator in a cavity
6278341	09/334,919	Granted		United States of America	8/21/2001	6/17/1999		Microstrip filter device
6295028	09/336,744	Granted		United States of America	9/25/2001	6/21/1999		Dual band antenna
6255922	09/424,859	Granted		United States of America	7/3/2001	1/12/2000		Microwave resonator with dielectric tuning body resiliently secured to a movable rod by spring means
6208299	09/525,521	Granted		United States of America	3/27/2001	3/15/2000		Dual band antenna arrangement
6320483	09/539,435	Granted		United States of America	11/20/2001	3/30/2000		Multi surface coupled coaxial resonator
6745007	09/542,951	Granted		United States of America	6/1/2004	4/4/2000		Method and apparatus for stability margin determination in a repeater
6496089	09/719,542	Granted	WO99/66585	United States of America	12/17/2002	2/5/2001	12/23/1999	Device for tuning of a dielectric resonator
6396366	09/774,179	Granted		United States of America	5/28/2002	4/16/2001		Coaxial cavity resonator
6593832	09/820,624	Granted	2001-0026202	United States of America	7/15/2003	3/20/2001	10/4/2001	Coaxial cavity resonator, filter and use of resonator component in a filter
6600393	09/926,695	Granted		United States of America	7/29/2003	2/26/2002		Temperature-compensated rod resonator
6636126	10/069,108	Granted		United States of America	10/21/2003	2/27/2002		Four port hybrid
7227434	10/332,373	Granted	2004-0028501	United States of America	6/5/2007	9/9/2003	2/12/2004	TUNING SCREW ASSEMBLY
6787696	10/399,789	Granted	2004-0036388	United States of America	9/7/2004	9/8/2003	2/26/2004	Shielded housing
6906666	10/399,861	Granted	2004-0041740	United States of America	6/14/2005	8/25/2003	3/4/2004	Beam adjusting device
6831608	10/416,162	Granted	2004-0027290	United States of America	12/14/2004	5/15/2003	2/12/2004	Microwave antenna with patch mounting device
6859177	10/432,617	Granted	2004-0061571	United States of America	2/22/2005	6/5/2003	4/1/2004	Four port hybrid microstrip circuit of Lange type
6864743	10/432,618	Granted	2004-0056710	United States of America	3/8/2005	6/5/2003	3/25/2004	Microwave amplifier with bypass segment
6816043	10/433,476	Granted	2004-0070467	United States of America	11/9/2004	6/11/2003	4/15/2004	Wave-guide and a connector therefor
6987427	10/433,607	Granted	2004-0097203	United States of America	1/17/2006	6/16/2003	5/20/2004	Method for tuning a radio filter and a system for tuning a radio filter
7092685	10/451,142	Granted	2004-0097203	United States of America	8/15/2006	6/27/2003	5/20/2004	Method for tuning a radio filter and a system for tuning a radio filter
7008265	10/473,138	Granted	2004-0171301	United States of America	3/7/2006	10/7/2003	9/2/2004	CIRCUIT BOARD CONNECTOR
7023293	11/066,397	Granted	2005-0151598	United States of America	4/4/2006	2/28/2005	7/14/2005	Method for tuning a radio filter and a system for tuning a radio filter
D378,592	D/043,409	Granted		United States of America	3/25/1997	9/1/1995		Antenna Device
D429,703	D/099,480	Granted		United States of America	8/22/2000	1/22/1999		Enclosure for active ellectronics circuits
D433,390	D/118,472	Granted		United States of America	11/7/2000	2/9/2000		Enclosure for active electronic circuits with an outer cover
	PCT/SE01/02758	Published	WO0249213	Patent Cooperation Treaty		12/12/2001	6/20/2002	Method for tuning a radio filter and a system for tuning a radio filter
5304968	07/971530	Granted		United States of America	4/19/1994	10/28/1992		Temperature Compensated Resonator
6329889	09/327,704	Granted		United States of America	12/11/2001	6/12/1998		COUPLING ELEMENT AND HIGH-FREQUENCY FILTER
6366184	09/517,925	Granted		United States of America	4/2/2002	3/3/1999		Coupling element and manufacturing method for it and high-frequency filter
6570472	09/605,908	Granted		United States of America	5/27/2003	6/29/1999		Low-pass filter
6710684	09/902,852	Granted	2002-0005768	United States of America	3/23/2004	7/17/2000	1/17/2002	Method for attaching a resonator part and a resonator
6566984	09/956,647	Granted		United States of America	5/20/2003	9/22/2000		High-frequency filter
7482897	10/599,809	Granted	2007-0273459	United States of America	1/27/2009	4/29/2005	11/29/2007	Bandstop filter
6927646	10/617,898	Granted	2004-0008094	United States of America	8/9/2005	7/12/2002	1/15/2004	Bypass arrangement for low-noise amplifier

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Patent #	Application #	Status	Public #(US PTO)	Country / Region	Issue Date	Filing Date	Publication Date	Title of the Patent
7180391	11/132,688	Granted	2005-0212623	United States of America	2/20/2007	3/17/2004	9/29/2005	Resonator filter
7236069	11/264,479	Granted	2006-0071737	United States of America	6/26/2007	5/18/2005	4/6/2006	Adjustable resonator filter
8125296	11/718,537	Granted	2009-0058556	United States of America	2/28/2012	11/7/2005	3/5/2009	Filtering arrangement of antenna end
	13/163,530	Published	2012-0007697	United States of America		6/17/2011	1/12/2012	Resonator coupling tuning arrangement
7471172	10/555,015	Granted	2007-0053129	United States of America	12/30/2008	4/30/2004	3/8/2007	Microwave transmission unit including lightning protection
113353	1676	Granted	FI20001676	Finland	4/15/2004	7/17/2000	1/18/2002	Method for attaching a resonator part and a resonator
114251	2091	Granted	FI20002091	Finland	9/15/2004	9/22/2000	3/23/2002	Resonator filter
1191626	1660172.6	Granted	EP1191626	European Patent Convention	5/11/2008	9/22/2000	2/7/2003	Resonator filter
	3396067.5	Published	EP1381162	European Patent Convention		12/7/2002	1/14/2004	Bypass arrangement for low-noise amplifier
1604425	4721210.5	Granted	EP1604425	European Patent Convention	6/13/2012	3/17/2004	12/14/2005	Resonator filter
	5717316.3	Published	EP1728295	European Patent Convention		3/4/2005	6/12/2006	Input arrangement for a low-noise amplifier pair
	5738049.5	Published	EP1756907	European Patent Convention		4/29/2005	11/17/2005	Bandstop filter
1754276	5742054.9	Granted	EP1754276	European Patent Convention	7/22/2010	5/18/2005	12/22/2005	Adjustable resonator filter
	5803809.2	Published	EP1817846	European Patent Convention		11/7/2005	8/15/2007	Filtering arrangement of antenna end
	6725956.4	Allowed	EP1886380	European Patent Convention		5/18/2006	2/13/2008	Arrangement for steering radiation lobe of antenna
	6725961.4	Published	EP1889373	European Patent Convention		5/22/2006	12/14/2006	By-pass arrangement of a low noise amplifier
	6764415.3	Published	EP2006000211	European Patent Convention		6/12/2006	2/3/2006	A new antenna structure and a method for its manufacture
	7704849.4	Allowed	EP1989754	European Patent Convention		2/14/2007	7/9/2007	Directional Coupler
115808	20021373	Granted	FI115808	Finland	7/15/2005	7/12/2002	1/13/2004	Bypass arrangement for low-noise amplifier
119207	20030402	Granted	FI20030402	Finland	8/29/2008	3/18/2003	9/19/2004	Resonator filter
119402	20040432	Granted	FI20040432	Finland	10/31/2008	3/22/2004	9/23/2005	Arrangement for dividing a filter output signal
	20040433	Published	FI20040433	Finland		3/22/2004	9/23/2005	Input arrangement for a low-noise amplifier pair
	20040450	Published	FI20040450	Finland		3/25/2004	9/26/2005	Directional coupler
	20040672	Published	FI20040672	Finland		5/12/2004	11/13/2005	Bandstop filter
	20040786	Published	FI20040786	Finland		6/8/2004	12/9/2005	Adjustable resonator filter
117684	20041560	Granted	FI20041560	Finland	1/15/2007	12/2/2004	6/3/2006	Filtering arrangement of antenna end
	20055285	Published	FI20055285	Finland		6/3/2005	12/4/2006	Arrangement for steering radiation lobe of antenna
117777	20055292	Granted	FI20055292	Finland	2/15/2007	6/7/2005	12/8/2006	By-pass arrangement of a low noise amplifier
	20055511	Published	FI20055511	Finland		9/27/2005	3/28/2007	TRANSMISSION LINE STRUCTURE
	20055597	Published	FI20055597	Finland		11/9/2005	5/10/2007	Arbitrary-length linear movement sliding-dielectric (loaded line) phase shifter system for beam-tilt antenna array
	20060211	Published	FI20060211	Finland		3/2/2006	9/3/2007	A new antenna structure and a method for its manufacture
	20065144	Published	FI20065144	Finland		2/28/2006	8/29/2007	Directional Coulpler
	20065272	Allowed	FI20065272	Finland		4/27/2006	10/28/2007	Rezoelectric element for resonator tuning
	20065317	Published	FI20065317	Finland		5/12/2006	11/13/2007	DIRECTIONAL COUPLER (Suuntakytkin ripustetulla liuskajohtimella)
118750	20065493	Granted	FI118750	Finland	2/29/2008	7/12/2006	2/29/2008	MHA structure arrangement
118663	20065547	Granted	FI118663	Finland	1/31/2008	9/1/2006	1/31/2008	MHA signal arrangement
119208	20065576	Granted	FI119208	Finland	8/29/2008	9/20/2006	8/29/2008	Intelligent Resonator and Filter Element
78198	870005142	Granted		Finland	2/28/1989	11/20/1987		A TRANSMISSION LINE RESONATOR
915156	910005156	Granted		Finland	5/1/1993	10/31/1991		Temperature Compensated Resonato
106584	970000525	Granted	FI970525	Finland	2/28/2001	2/7/1997	8/8/1998	High-frequency filter
113575	980001362	Granted	FI981362	Finland	5/14/2004	6/12/1998	12/13/1999	COUPLING ELEMENT AND HIGH-FREQUENCY FILTER
113578	990000462	Granted	FI990462	Finland	5/14/2004	3/3/1999	9/4/2000	Coupling element and manufacturing method for it and high-frequency filter
113577	990001476	Granted	FI991476	Finland	5/14/2004	6/29/1999	12/30/2000	Low-pass filter
	18070079280	Pending		Brazil		5/18/2006		Arrangement for steering radiation lobe of antenna
	18070079831	Pending		Brazil		5/22/2006		By-pass arrangement of a low noise amplifier
	18080051244	Pending		Brazil		2/14/2007		MCbulpler and tuning method for the directivity
	20058000284	Published	CN1774832	China (Peoples Republic)		3/3/2005	5/17/2006	Arrangement for dividing a filter output signal
	2.0048E+11	Published	CN1717838	China (Peoples Republic)		3/17/2004	1/4/2006	Resonator filter
	2.0058E+11	Allowed	CN1820390	China (Peoples Republic)		5/18/2005	8/16/2006	Adjustable resonator filter
	2.0058E+11	Published	CN1938898	China (Peoples Republic)		3/4/2005	3/28/2007	Input arrangement for a low-noise amplifier pair
	2.0058E+11	Published	CN1950971	China (Peoples Republic)		4/29/2005	4/18/2007	Bandstop filter
	2.0068E+11	Published	CN101189758	China (Peoples Republic)		5/18/2006	5/28/2008	Arrangement for steering radiation lobe of antenna
	2.0068E+11	Published	CN101194431	China (Peoples Republic)		5/22/2006	6/4/2008	By-pass arrangement of a low noise amplifier
	2.0078E+11	Pending		China (Peoples Republic)		2/14/2007		MCbulpler and tuning method for the directivity
5047739	07/377,854	Granted		United States of America	9/10/1991	10/7/1988		A TRANSMISSION LINE RESONATOR
6566984	09/956,647	Granted	2002-0036551	United States of America	5/20/2003	9/22/2000	3/28/2002	Resonator filter
7526263	11/469,725	Granted	2007-0132528	United States of America	4/28/2009	3/3/2005	6/14/2007	Arrangement for dividing a filter output signal
	1896/DELNP/2005	Pending		India		3/17/2004		Resonator filter
	2004PI06416	Published	BR0406416	Brazil		3/17/2004	10/4/2005	Resonator filter
FI6737	20050000040U	Granted		Finland	7/19/2005	2/4/2005		Integrated cross coupling
	200580041668.x	Published	CN101076948	China (Peoples Republic)		11/7/2005	11/21/2007	Filtering arrangement of antenna end
	3772/DELNP/2007	Pending		India		11/7/2005		Filtering arrangement of antenna end
227074	5157/DELNP/2005	Granted		India	1/1/2009	5/18/2005		Adjustable resonator filter
233683	5481/DELNP/2006	Granted		India	4/1/2009	3/3/2005		Arrangement for dividing a filter output signal

PATENT
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Patent #	Application #	Status	Public. #(US PTO)	Country / Region	Issue Date	Filing Date	Publication Date	Title of the Patent
	5481/DELNP/2006	Pending		India		3/4/2005		Input arrangement for a low-noise amplifier pair
	6442/DELNP/2006	Pending		India		4/29/2005		Bandstop filter
	9277/DELNP/2007	Pending		India		5/22/2006		By-pass arrangement of a low noise amplifier
	II/DELNP/2008	Pending		India		5/18/2006		Arrangement for steering radiation lobe of antenna
	PCT/FI2004/000152	Published	WO2004084340	Patent Cooperation Treaty		3/17/2004	9/30/2004	Resonator filter
	PCT/FI2005/050060	Published	WO2005/091426	Patent Cooperation Treaty		3/3/2005	9/29/2005	Arrangement for dividing a filter output signal
	PCT/FI2005/050062	Published	WO2005091428	Patent Cooperation Treaty		3/4/2005	9/29/2005	Input arrangement for a low-noise amplifier pair
	PCT/FI2005/050140	Published	WO2005109565	Patent Cooperation Treaty		4/29/2005	11/17/2005	Bandstop filter
	PCT/FI2005/050170	Published	WO2005122323	Patent Cooperation Treaty		5/18/2005	12/22/2005	Adjustable resonator filter
	PCT/FI2005/050400	Published	WO2006058964	Patent Cooperation Treaty		11/7/2005	6/8/2006	Filtering arrangement of antenna end
	PCT/FI2006/000189	Published	WO2007099194	Patent Cooperation Treaty		6/12/2006	9/7/2007	A new antenna structure and a method for its manufacture
	PCT/FI2006/050199	Published	WO2006128962	Patent Cooperation Treaty		5/18/2006	12/7/2006	Arrangement for steering radiation lobe of antenna
	PCT/FI2006/050204	Published	WO2006131595	Patent Cooperation Treaty		5/22/2006	12/14/2006	By-pass arrangement of a low noise amplifier
	PCT/FI2006/050411	Published	WO2007036607	Patent Cooperation Treaty		9/26/2006	4/5/2007	TRANSMISSION LINE STRUCTURE
	PCT/FI2007/050079	Published	WO2007099202	Patent Cooperation Treaty		2/14/2007	9/7/2007	MCoulpler and tuning method for the directivity
	PCT/FI2007/050198	Published	WO2007125161	Patent Cooperation Treaty		4/17/2007	11/8/2007	Piezoelectric element for resonator tuning
	PCT/FI2007/050216	Published	WO2007132061	Patent Cooperation Treaty		4/23/2007	11/22/2007	DIRECTIONAL COUPLER
	PCT/FI88/00163	Published	WO 89/05046	Patent Cooperation Treaty		10/7/1988	6/1/1989	A TRANSMISSION LINE RESONATOR
	PI0504405-7	Published	PI0504405-7	Brazil		5/18/2005	10/24/2006	Adjustable resonator filter
	PI0504770-6	Published	PI0504770-6	Brazil		3/3/2005	10/24/2006	Arrangement for dividing a filter output signal
	PI0508116-5	Published	PI0508116	Brazil		3/4/2005	7/17/2007	Input arrangement for a low-noise amplifier pair
	PI0509428-3	Published	PI0509428-3	Brazil		4/29/2005	9/4/2007	Bandstop filter
	PI0517114-8	Published	BRPI0517114	Brazil		11/7/2005	9/30/2008	Filtering arrangement of antenna end
	PI0621217-4	Pending		Brazil		6/12/2006		A new antenna structure and a method for its manufacture
	WO2005FI50066	Published	WO2005093896	Patent Cooperation Treaty		3/7/2005	10/6/2005	Directional coupler
		Published		India		2/14/2007		MCoulpler and tuning method for the directivity
		Published		China (Peoples Republic)		6/12/2006		A new antenna structure and a method for its manufacture
6.02004E+11	4721210.5	Granted	EP1604425	Germany	6/20/2012	3/17/2004	12/14/2005	Resonator filter
602005023299.0-08	5742054.9	Granted	EP1754276	Germany	9/1/2010	5/18/2005	12/22/2005	Adjustable resonator filter
602006016268.5-08	6725956.4	Granted	EP1886380	Germany	8/18/2010	5/18/2006	2/13/2008	Arrangement for steering radiation lobe of antenna
6.02007E+11	7704849.4	Granted	EP1989754	Germany	10/1/2012	2/14/2007	7/9/2007	Directional Coupler
1989754	7704849.4	Granted	EP1989754	Sweden	8/16/2012	2/14/2007	7/9/2007	Directional Coupler
	7730703.1	Published	EP2022130	European Patent Convention		4/23/2007	2/11/2009	DIRECTIONAL COUPLER
	8736851	Published	EP2151065	European Patent Convention		4/18/2008	11/13/2008	Masthead Amplifier Unit
	11187668.6	Published	EP2453518	European Patent Convention		11/3/2011	5/16/2012	Adaptable resonator filter
	20075309	Pending		Finland		5/3/2007		Masthead Amplifier
	20105772	Pending		Finland		7/7/2010		Resonator coupling tuning arrangement
	20106189	Pending		Finland		11/12/2010		Adaptable resonator filter
	20115557	Pending		Finland		6/8/2011		Wide band adjustable coaxial resonator
	20125682	Pending		Finland		6/20/2012		An improved resonator structure for a cavity filter arrangement
	2.0078E+11	Published	101438457	China (Peoples Republic)		4/17/2007	5/20/2009	Piezoelectric element for resonator tuning
	2.0078E+11	Allowed	101443951	China (Peoples Republic)		4/23/2007	5/27/2009	DIRECTIONAL COUPLER
7466970	11/264,478	Granted	2006-0252400	United States of America	12/16/2008	10/31/2005	11/9/2006	Arrangement for dividing a filter output signal
8130874	11/945,363	Granted	2008-0107216	United States of America	3/6/2012	5/22/2006	5/8/2008	By-pass arrangement of a low noise amplifier
7864111	11/946,600	Granted	2008-0070507	United States of America	1/4/2011	5/18/2006	3/20/2008	Arrangement for steering radiation lobe of antenna
8188934	12/194,745	Granted	2009-0015502	United States of America	5/29/2012	6/12/2006	1/15/2009	Antenna structure and a method for its manufacture
7567146	12/198,170	Granted	2009-0045887	United States of America	7/28/2009	2/14/2007	2/19/2009	MCoulpler and tuning method for the directivity
8149074	12/296,636	Granted	2010-0007442	United States of America	4/3/2012	4/17/2007	1/4/2010	Piezoelectric element for resonator tuning
7821354	12/300,316	Granted	2009-0146758	United States of America	10/26/2010	4/23/2007	6/11/2009	DIRECTIONAL COUPLER
8150353	12/434,512	Granted	2009-027298	United States of America	4/3/2012	5/1/2009	11/5/2009	Masthead amplifier unit
	12/594,259	Published	2010-0149066	United States of America		4/18/2008	6/17/2010	Masthead Amplifier Unit
	13/293,831	Published	2012-0119851	United States of America		11/10/2011	5/17/2012	Adaptable resonator filter
	61/663,962	Pending		United States of America		6/25/2012		An improved resonator structure for a cavity filter arrangement
	PCT/FI2008/050202	Published	WO2008/135630	Patent Cooperation Treaty		4/18/2008	11/13/2008	Masthead Amplifier Unit
	11170340.1	Published	EP2405531	European Patent Convention		6/17/2011	1/11/2012	Resonator coupling tuning arrangement
	11187667.8	Published	EP2453517	European Patent Convention		11/3/2011	5/16/2012	Adjustable resonator filter
	12169907.8	Pending		European Patent Convention		5/30/2012		Adjustable Resonator
	12171289.7	Pending		European Patent Convention		6/8/2012		Tunable inductive coupling between resonators
	20115721	Pending		Finland		7/6/2011		Tunable resonator filter and method for tuning coupling between resonator cavities
	201006188	Pending		Finland		11/12/2010		Adaptable resonator filter
	13/293,817	Published	2012-0119850	United States of America		11/10/2011	5/17/2012	Adaptable resonator filter
	13/478,018	Published	US-2012-0313735-A1	United States of America		5/22/2012	12/13/2012	Wide band adjustable coaxial resonator
6560116	-651294	Granted	2002-0080594	United States of America	5/6/2003	12/18/2001	6/27/2002	Electronics Apparatus with Wall Support Structure
7157967	-614745	Granted	2005-0200409	United States of America	1/2/2007	12/21/2004	9/15/2005	System and Method for Control of Loop Alignment in Adaptive Feed Forward Amplifiers

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6556076	-569481	Granted		United States of America	4/29/2003	12/17/2001		Embodiment II Feed Forward Amplifier with Amplifier Stage Failure Detection using Pilot Tones
6677817	-568386	Granted	2003-0112066	United States of America	1/13/2004	12/17/2001	6/19/2003	Embodiment I- Feed Forward Amplifier with Amplifier Stage Failure Detection using Pilot Tones
	-481041	Published	2011-0188205	United States of America		1/24/2011	8/4/2011	Active Antenna Heatsink
8068783	-450000	Granted	2008-0176513	United States of America	11/29/2011	1/22/2008	7/24/2008	Adaptive Echo Cancellation For An On-Frequency RF Repeater Using A Weighted Power Spectrum
6072824	-417947	Granted		United States of America	6/6/2000	1/23/1998		Circuit arrangement for reducing intermodulation in a bandpass filter system
5977835	-384337	Granted		United States of America	11/2/1999	2/6/1998		Method and circuit arrangement for reducing passband ripple of a bandpass filter
6069586	-382877	Granted		United States of America	5/30/2000	2/4/1998		Antenna operating with two isolated channels
507076	-372485	Granted	SE9700208	Sweden	3/23/1998	1/24/1997	3/23/1998	Antenna element
5929704	-355841	Granted		United States of America	7/27/1999	2/20/1998		Control of RF error extraction using auto-calibrating RF correlator
503722	-288420	Granted	SE9501830	Sweden	8/12/1996	5/16/1995	8/12/1996	An antenna device with two radiating elements having an adjustable phase difference between the radiating elements
520203	-276306	Granted	SE0001143	Sweden	6/10/2003	3/30/2000	10/1/2001	Coaxial cavity resonator, filter and use of resonator component in a filter
504568	-5782	Granted	SE9502604	Sweden	3/10/1997	7/14/1995	1/15/1997	Amplifier for antenna and using integrated dual duplex filters
HK1022994	102021.9	Granted		Hong Kong	2/27/2004	4/5/2000		Antenna device with improved channel isolation
HK1024787	104031.3	Granted		Hong Kong	6/18/2004	7/4/2000		Antenna operating with two isolated channels
ZL00118373.7	118373.7	Granted	1277469	China (Peoples Republic)	3/22/2006	6/15/2000	12/20/2000	Tuning assembly for a dielectrical resonator in a cavity
2375667	220803.1	Granted	GB2375667	United Kingdom	9/8/2004	2/8/2001	11/20/2002	Power Booster Method and Apparatus For Improving The Performance of Radio Frequency Linear Power Amplifiers
516862	279625	Granted	SE0002665	Sweden	3/12/2002	7/14/2000	1/15/2002	TUNING SCREW ASSEMBLY
986833	347134	Granted	EP0986833	Sweden	12/29/2004	6/6/1997	3/22/2000	Microwave resonator with dielectric tuning body resiliently secured to a movable rod by spring means
	408192.3	Pending		United Kingdom		4/13/2004		Microwave Dielectric Ceramic
	501259	Pending		United Kingdom		1/21/2005		Microwave Dielectric Ceramic
GB2413127	501259.6	Granted	GB2413127	United Kingdom	1/3/2007	4/13/2005	10/19/2005	Microwave Dielectric Ceramic
2413127	507459.6	Granted	GB2413127	United Kingdom	4/2/2008	5/18/2005	10/19/2005	'Microwave Dielectric Ceramic
519118	569201	Granted	SE9702786	Sweden	1/14/2003	7/23/1997	1/24/1999	Antenna device with improved channel isolation
2440047	713582.5	Granted	GB24400047	United Kingdom	3/26/2008	7/12/2007	1/16/2008	Microwave Dielectric Ceramic
2440048	713583.3	Granted	GB24400048	United Kingdom	3/26/2008	7/12/2007	1/16/2008	Microwave Dielectric Ceramic
519751	741260	Granted	SE0003929	Sweden	4/8/2003	10/27/2000	4/28/2002	Beam adjusting device
ZL00805060.0	805060	Granted	1343382	China (Peoples Republic)	10/27/2004	3/10/2000	4/3/2002	Dual band antenna arrangement
CN1193458C	808413	Granted	1353875	China (Peoples Republic)	3/16/2005	4/26/2000	6/12/2002	Temperature-compensated rod resonator
ZL00808556.0	808556	Granted		China (Peoples Republic)	2/9/2005	5/18/2000		Method and apparatus for stability margin determination in a repeater
CN1179445C	812081.1	Granted	1371535	China (Peoples Republic)	12/8/2004	8/23/2000	9/25/2002	Four port hybrid
1061602	850087.8	Granted	EP1061602	European Patent Convention	12/26/2007	5/17/2000	12/20/2000	Tuning assembly for a dielectrical resonator in a cavity
1061602	850087.8	Granted	EP1061602	Finland	12/26/2007	5/17/2000	12/20/2000	Tuning assembly for a dielectrical resonator in a cavity
1061602	850087.8	Granted	EP1061602	France	12/26/2007	5/17/2000	12/20/2000	Tuning assembly for a dielectrical resonator in a cavity
60037555.2	850087.8	Granted	EP1061602	Germany	1/8/2009	5/17/2000	12/20/2000	Tuning assembly for a dielectrical resonator in a cavity
1061602	850087.8	Granted	EP1061602	United Kingdom	12/26/2007	5/17/2000	12/20/2000	Tuning assembly for a dielectrical resonator in a cavity
512413	861487	Granted	SE9703586	Sweden	3/13/2000	10/1/1997	4/2/1999	Method of producing an antenna element assembly
890218	890218	Granted		Italy		3/14/1997		Adaptive compensation of RF amplifier distortion by injecting predistortion signal derived from respectively different function
518237	896488	Granted	SE0004354	Sweden	9/10/2002	11/27/2000	5/28/2002	Microwave antenna with patch mounting device
1161777	917561.3	Granted	EP1161777	European Patent Convention	6/11/2008	3/10/2000	12/12/2001	Dual band antenna arrangement
1161777	917561.3	Granted	EP1161777	France	6/11/2007	3/10/2000	12/12/2001	Dual band antenna arrangement
60039158.2	917561.3	Granted	EP1161777	Germany	3/25/2008	3/10/2000	12/12/2001	Dual band antenna arrangement
1161777	917561.3	Granted	EP1161777	Italy	6/11/2008	3/10/2000	12/12/2001	Dual band antenna arrangement
2308973	917561.3	Granted	EP1161777	Spain	9/10/2008	3/10/2000	12/12/2001	Dual band antenna arrangement
1161777	917561.3	Granted	EP1161777	United Kingdom	12/2/2008	3/10/2000	12/12/2001	Dual band antenna arrangement
1181738	928066	Granted	EP1181738	European Patent Convention	10/10/2007	4/26/2000	12/14/2000	Temperature-compensated rod resonator
1181738	928066	Allowed	EP1181738	France	10/10/2007	4/26/2000	12/14/2000	Temperature-compensated rod resonator
60036701	928066	Granted	EP1181738	Germany	10/10/2007	4/26/2000	12/14/2000	Temperature-compensated rod resonator
1181738	928066	Allowed	EP1181738	United Kingdom	10/10/2007	4/26/2000	12/14/2000	Temperature-compensated rod resonator
1186112	944474.6	Granted	EP1186112	European Patent Convention	5/13/2009	5/18/2000	3/13/2002	Method and apparatus for stability margin determination in a repeater
1186112	944474.6	Granted	EP1186112	United Kingdom	3/25/2009	5/18/2000	3/13/2002	Method and apparatus for stability margin determination in a repeater
1208615	957206.6	Granted	EP1208615	European Patent Convention	11/5/2008	8/23/2000	5/29/2002	Four port hybrid
1208615	957206.6	Granted	EP1208615	Germany	11/5/2008	8/23/2000	5/29/2002	Four port hybrid
109838	972116	Granted	FI972116	Finland	10/15/2002	11/15/1995	5/16/1997	Measuring line for a coaxial conductor for determining energy throughflow and standing wave ratios
1224731	984554.6	Granted	EP1224731	European Patent Convention	3/1/2006	10/19/2000	7/24/2002	Improved Predistortion Compensation for a Power Amplifier
1224731	984554.6	Granted	EP1224731	France	3/1/2006	10/19/2000	7/24/2002	Improved Predistortion Compensation for a Power Amplifier
1224731	984554.6	Granted	EP1224731	Germany	3/1/2006	10/19/2000	7/24/2002	Improved Predistortion Compensation for a Power Amplifier
1224731	984554.6	Granted	EP1224731	Sweden	3/1/2006	10/19/2000	7/24/2002	Improved Predistortion Compensation for a Power Amplifier
1224731	984554.6	Granted	EP1224731	United Kingdom	3/1/2006	10/19/2000	7/24/2002	Improved Predistortion Compensation for a Power Amplifier
519752	1071836	Granted	SE0004834	Sweden	4/8/2003	12/22/2000	6/23/2002	Microwave amplifier with bypass segment
520792	1072109	Granted	SE0004835	Sweden	8/26/2003	12/22/2000	6/23/2002	Four port hybrid microstrip circuit of Lange type
520112	1082397	Granted	SE0004863	Sweden	5/27/2003	12/27/2000	6/28/2002	Method for tuning a radio filter and a system for tuning a radio filter
HK1033210	1103784.3	Granted		Hong Kong	2/18/2005	6/1/2001		Dual band antenna
515092	1124309	Granted	SE515092	Sweden	6/11/2001	3/15/1999	6/11/2001	Dual band antenna arrangement
	1166533.1	Pending		European Patent Convention		4/1/2011		Reduced Size Cavity Filters for Pico Base Stations

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	1225026	Pending		European Community		1/4/2012		QUAD BAND UNIT ENCLOSURE
511064	1247183	Granted	SE9704642	Sweden	7/26/1999	12/12/1997	6/13/1999	Dual band antenna
1342285	1270919.2	Granted	EP1342285	European Patent Convention	7/16/2008	12/10/2001	9/10/2003	Wave-guide and a connector therefor
1342285	1270919.2	Granted	EP1342285	France	7/16/2008	12/10/2001	9/10/2003	Wave-guide and a connector therefor
60134890	1270919.2	Granted	EP1342285	Germany	7/16/2008	12/10/2001	9/10/2003	Wave-guide and a connector therefor
1346430	1272437.3	Granted	EP1346430	European Patent Convention	10/13/2009	12/21/2001	9/24/2003	Method for tuning a radio filter and a system for tuning a radio filter
532279	1291346	Granted	SE532279	Sweden	12/1/2009	4/11/2008	12/1/2009	Improved Antenna Isolation I
514247	1555264	Granted	SE9902094	Sweden	1/29/2001	6/4/1999	12/5/2000	Temperature-compensated rod resonator
516753	1598303	Granted	SE9902212	Sweden	2/26/2002	6/11/1999	12/12/2000	Method and apparatus for stability margin determination in a repeater
ZL01807189.9	1807189.9	Granted	1419719	China (Peoples Republic)	10/12/2005	3/20/2001	5/21/2003	Coaxial cavity resonator, filter and use of resonator component in a filter
ZL01807838.9	1807838.9	Granted	1422454	China (Peoples Republic)	10/15/2008	2/8/2001	6/4/2003	Power Booster Method and Apparatus For Improving The Performance of Radio Frequency Linear Power Amplifiers
ZL01808283.1	1808283.1	Granted	1425242	China (Peoples Republic)	11/8/2006	2/28/2001	6/18/2003	System and Method for Peak Power Reduction in Spread Spectrum Communications Systems
	1811241	Published	CN1436397	China (Peoples Republic)		4/6/2001	8/13/2003	Method and apparatus for optimum biasing of cascaded MOSFET radio-frequency devices
ZL01811910.7	1811910.7	Granted	1441879	China (Peoples Republic)	7/9/2008	7/9/2001	9/10/2003	TUNING SCREW ASSEMBLY
ZL01814336.9	1814336.9	Granted	1448011	China (Peoples Republic)	8/5/2009	6/19/2001	10/8/2003	System and Method for Peak Power Reduction in Multiple Carrier Communications Systems
ZL01818180.5	1818180.5	Granted	CN1471748	China (Peoples Republic)	6/28/2006	9/12/2001	1/28/2004	Beam adjusting device
ZL01819390.0	1819390	Granted	1476649	China (Peoples Republic)	7/19/2006	12/10/2001	2/18/2004	Wave-guide and a connector therefor
ZL01821153.4	1821153.4	Granted	1483240	China (Peoples Republic)	5/24/2006	11/9/2001	3/17/2004	Microwave amplifier with bypass segment
514767	1901454	Granted	SE9903042	Sweden	4/23/2001	8/27/1999	2/28/2001	Four port hybrid
1245077	1901814.2	Granted	EP1245077	European Patent Convention	8/24/2011	1/8/2001	10/2/2002	Carrier-blanking mechanism for sweeping detector used to measure and correct RF power amplifier distortion
1262017	1912738	Granted	EP1262017	European Patent Convention	6/26/2009	7/8/2002	12/4/2002	Spectral distortion monitor for controlling pre-distortion and feed-forward linearization of RF power amplifier
	1913130.9	Published	EP1281262	European Patent Convention		2/28/2001	2/5/2003	System and Method for Peak Power Reduction in Spread Spectrum Communications Systems
1269563	1916015.9	Granted	EP1269563	European Patent Convention	5/6/2009	3/20/2001	1/2/2003	Coaxial cavity resonator, filter and use of resonator component in a filter
1269563	1916015.9	Granted	EP1269563	United Kingdom	3/25/2009	3/20/2001	1/2/2003	Coaxial cavity resonator, filter and use of resonator component in a filter
1293039	1937515.3	Granted	EP1293039	European Patent Convention	8/10/2008	5/18/2001	3/19/2003	High linearity multicarrier RF amplifier
1293039	1937515.3	Granted	EP1293039	Finland	8/10/2008	5/18/2001	3/19/2003	High linearity multicarrier RF amplifier
1293039	1937515.3	Granted	EP1293039	France	8/10/2008	5/18/2001	3/19/2003	High linearity multicarrier RF amplifier
60136066	1937515.3	Granted	EP1293039	Germany	8/10/2008	5/18/2001	3/19/2003	High linearity multicarrier RF amplifier
1293039	1937515.3	Granted	EP1293039	Sweden	8/10/2008	5/18/2001	3/19/2003	High linearity multicarrier RF amplifier
1293039	1937515.3	Granted	EP1293039	United Kingdom	8/10/2008	5/18/2001	3/19/2003	High linearity multicarrier RF amplifier
	1948184.5	Published	EP1311770	European Patent Convention		7/9/2001	5/21/2003	TUNING SCREW ASSEMBLY
1348244	1967873.9	Granted	EP1348244	European Patent Convention	11/21/2007	9/12/2001	10/1/2003	Beam adjusting device
1348244	1967873.9	Granted	EP1348244	France	11/21/2007	9/12/2001	10/1/2003	Beam adjusting device
60131566.9	1967873.9	Granted	EP1348244	Germany	11/21/2007	9/12/2001	10/1/2003	Beam adjusting device
1348244	1967873.9	Granted	EP1348244	United Kingdom	11/21/2007	9/12/2001	10/1/2003	Beam adjusting device
	1971284	Pending		European Community		1/4/2012		BASE UNIT ENCLOSURE
1340287	1979182.1	Granted	EP1340287	European Patent Convention	12/12/2007	10/26/2001	9/3/2003	Microwave antenna with patch mounting device
1340287	1979182.1	Granted	EP1340287	France	12/12/2007	10/26/2001	9/3/2003	Microwave antenna with patch mounting device
60131887	1979182.1	Granted	EP1340287	Germany	12/12/2007	10/26/2001	9/3/2003	Microwave antenna with patch mounting device
1346432	1983025.6	Granted	EP1346432	European Patent Convention	5/26/2010	5/15/2003	9/24/2003	Four port hybrid microstrip circuit of Lange type
1344313	1983026.4	Granted	EP1344313	European Patent Convention	1/2/2008	5/15/2003	9/17/2003	Microwave amplifier with bypass segment
1344313	1983026.4	Granted	EP1344313	France	1/2/2008	5/15/2003	9/17/2003	Microwave amplifier with bypass segment
60132244.4	1983026.4	Granted	EP1344313	Germany	12/28/2007	5/15/2003	9/17/2003	Microwave amplifier with bypass segment
1346472	1991348.2	Granted	EP1346472	European Patent Convention		12/21/2001	9/24/2003	Closed loop active cancellation technique (ACT)-based RF power amplifier linearization architecture
1346472	1991348.2	Granted	EP1346472	France	2/11/2009	12/21/2001	9/24/2003	Closed loop active cancellation technique (ACT)-based RF power amplifier linearization architecture
60137643	1991348.2	Granted	EP1346472	Germany	2/11/2009	12/21/2001	9/24/2003	Closed loop active cancellation technique (ACT)-based RF power amplifier linearization architecture
1346472	1991348.2	Granted	EP1346472	Sweden	2/11/2009	12/21/2001	9/24/2003	Closed loop active cancellation technique (ACT)-based RF power amplifier linearization architecture
JP3911027	2011635	Allowed		Japan	2/2/2007	8/31/1998		Method and device for monitoring a mobile telephone repeater
3990735	2085810	Granted	JP2001509341	Japan	10/17/2007	7/22/1999	7/10/2001	Antenna element
526492	2201683	Granted	SE0401144	Sweden	9/27/2005	5/3/2004	9/27/2005	Aperture antenna element
2226783	2226783	Granted	CA2226783	Canada	4/8/2008	7/12/1996	2/6/1997	Antenna amplifier
2244873	2244873	Granted	CA2244873	Canada	10/18/2005	2/19/1997	9/12/1997	Method and device for monitoring a mobile telephone repeater
2256330	2256330	Granted	CA2256330	Canada	1/27/2004	5/28/1997	12/4/1997	Repeater with variable bandwidth
	2286531	Allowed	CA2286531	Canada		10/18/1999	4/19/2000	Feed Forward Amplification System Having Mask Detection Compensation
2286536	2286536	Granted	CA2286536	Canada	9/28/2004	10/18/1999	4/19/2000	Multi-Channel Amplification System Using Mask Detection
	2286542	Published	CA2286542	Canada		10/18/1999	4/19/2000	Amplification System Having Mask Detection
	2286544	Published	CA2286544	Canada		10/18/1999	4/19/2000	Amplification System having Mask Detection and Bias Compensation
2289396	2289396	Granted	CA2289396	Canada	10/7/2003	11/12/1999	5/13/2000	Feed Forward Compensation Using Phase and Time Modulation
2293241	2293241	Granted	CA2293241	Canada	8/6/2002	4/7/1999	10/14/1999	Adaptive Biasing in a Power Amplifier
2293337	2293337	Granted	CA2293337	Canada	10/26/2004	4/7/1999	10/14/1999	Dynamic Predistortion Compensation for a Power Amplifier
2336332	2336332	Granted	CA2336332	Canada	5/23/2006	7/1/1999	1/13/2000	Switchable Combiner/Splitter
2339793	2339793	Granted	CA2339793	Canada	10/27/2009	8/12/1999	2/24/2000	Coaxial cavity resonator
	2352335	Published	CA2352335	Canada		11/24/1999	6/8/2000	Microstrip filter device
516789	2386313	Granted	SE9904369	Sweden	3/5/2002	12/1/1999	6/2/2001	Mounting of an antenna assembly including a printed circuit board secured to a rigid metal reflector possibly by adhesive tape

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516788	2386617	Granted	SE9904370	Sweden	3/5/2002	12/1/1999	6/2/2001	Mounting of an antenna assembly including a printed circuit board secured to a rigid metal reflector possibly by adhesive tape
2388512	2388512	Granted	CA2388512	Canada	4/20/2004	10/19/2000	5/3/2001	Improved Predistortion Compensation for a Power Amplifier
2406757	2406757	Granted	CA2406757	Canada	3/23/2004	2/28/2001	11/1/2001	System and Method for Peak Power Reduction in Spread Spectrum Communications Systems
2413282	2413282	Granted	CA2413282	Canada	5/25/2004	6/19/2001	12/27/2001	System and Method for Peak Power Reduction in Multiple Carrier Communications Systems
2450378	2450378	Granted	CA2450378	Canada	10/21/2008	6/28/2002	1/16/2003	System and Method for Post Filtering Peak Power Reduction in Communications Systems
2452349	2452349	Granted	CA2452349	Canada	9/23/2008	7/30/2002	2/13/2003	System and Method for Post Filtering Peak Power Reduction in Communications Systems
	2476246	Published	CA2476246	Canada		2/12/2003	8/21/2003	Feed Forward RF Power Amplifier with High Efficiency Main Amplifier and Highly Linear Error Amplifier
	2479684	Published	CA2479684	Canada		3/18/2003	10/2/2003	System and Method for Eliminating Signal Zero Crossings in Single and Multiple Channel Communications Systems
2483107	2483107	Granted	CA2483107	Canada	9/21/2010	4/22/2003	11/6/2003	Bias Circuit Topologies for Minimization of RF Amplifier Memory Effects
	2495528	Published	CA2495528	Canada		8/19/2003	3/4/2004	Enhanced Efficiency LDMOS Based Feed Forward Amplifier
2505189	2505189	Granted	CA2505189	Canada	9/25/2012	11/20/2003	6/10/2004	Systems and Methods of Dynamic Bias Switching for Radio Frequency Power Amplifiers
	2515689	Published	CA2515689	Canada		2/11/2004	9/2/2004	Enhanced Efficiency Feed Forward Power Amplifier Utilizing Reduced Cancellation Bandwidth and Small Error Amplifier
	2540127	Published	CA2540127	Canada		9/10/2004	4/14/2005	Method for Aligning Feed Forward Loops
2555988	2555988	Granted	CA2555988	Canada	4/26/2011	2/24/2005	9/15/2005	Digital predistortion system and method for linearizing an RF power amplifier with nonlinear gain characteristics and memory ef
	2556359	Allowed	CA2556359	Canada		2/14/2005	10/6/2005	System and Method for Control of loop alignment for feed forward amplifiers
	2557334	Published	CA2557334	Canada		2/23/2005	10/6/2005	Digital predistortion system and method for high efficiency transmitters
527798	2705473	Granted	SE0402523	Sweden	6/7/2006	10/19/2004	4/20/2006	A DC-extracting arrangement
1378025	2711605.2	Granted	EP1378025	European Patent Convention	8/18/2009	2/13/2002	1/7/2004	CIRCUIT BOARD CONNECTOR
	2744685.5	Published	EP1405427	European Patent Convention		6/28/2002	4/7/2004	System and Method for Post Filtering Peak Power Reduction in Communications Systems
	2748266	Published	EP1415448	European Patent Convention		7/30/2002	5/6/2004	System and Method for Post Filtering Peak Power Reduction in Communications Systems
ZL02808097.1	2808097.1	Granted	1502148	China (Peoples Republic)	11/15/2006	2/13/2002	6/2/2004	CIRCUIT BOARD CONNECTOR
	2814927	Published	1640081	China (Peoples Republic)		7/30/2002	7/13/2005	System and Method for Post Filtering Peak Power Reduction in Communications Systems
528015	2835380	Granted	SE0402879	Sweden	8/8/2006	11/26/2004	6/27/2006	Antenna control system
528018	2835989	Granted	SE0402880	Sweden	8/8/2006	11/26/2004	6/27/2006	Antenna control system
528084	2848588	Granted	SE0402915	Sweden	8/29/2006	11/30/2004	6/27/2006	DUAL BAND ANTENNA
1576724	3726376.1	Granted	EP1576724	European Patent Convention	7/29/2011	4/22/2003	9/21/2005	Bias Circuit Topologies for Minimization of RF Amplifier Memory Effects
1502362	3745111.9	Granted	EP1502362	European Patent Convention	6/22/2011	3/18/2003	2/2/2005	System and Method for Eliminating Signal Zero Crossings in Single and Multiple Channel Communications Systems
1529421	3784786	Granted	EP1529421	European Patent Convention	9/28/2010	7/18/2003	5/11/2005	INSTALLATION SITES FOR HOUSING ELECTRONIC EQUIPMENT
1563600	3787071.4	Granted	EP1563600	European Patent Convention	10/30/2008	11/20/2003	8/17/2005	Systems and Methods of Dynamic Bias Switching for Radio Frequency Power Amplifiers
1563600	3787071.4	Granted	EP1563600	Finland	10/30/2008	11/20/2003	8/17/2005	Systems and Methods of Dynamic Bias Switching for Radio Frequency Power Amplifiers
1563600	3787071.4	Granted	EP1563600	France	10/30/2008	11/20/2003	8/17/2005	Systems and Methods of Dynamic Bias Switching for Radio Frequency Power Amplifiers
60324451.3	3787071.4	Granted	EP1563600	Germany	10/30/2008	11/20/2003	8/17/2005	Systems and Methods of Dynamic Bias Switching for Radio Frequency Power Amplifiers
1563600	3787071.4	Granted	EP1563600	Sweden	10/30/2008	11/20/2003	8/17/2005	Systems and Methods of Dynamic Bias Switching for Radio Frequency Power Amplifiers
1563600	3787071.4	Granted	EP1563600	United Kingdom	10/30/2008	11/20/2003	8/17/2005	Systems and Methods of Dynamic Bias Switching for Radio Frequency Power Amplifiers
1573900	3790473.7	Granted	EP1573900	European Patent Convention	2/11/2011	12/11/2003	9/14/2005	Feed Forward Amplifier System Using Penalties and Floors for Optimal Control
1573907	3790474.5	Granted	EP1573907	European Patent Convention	9/20/2010	12/11/2003	9/14/2005	Delay Mismatched Feed Forward Amplifier System Using Penalties and Floors for Control
	3793135.9	Published	EP1552602	European Patent Convention		8/19/2003	7/13/2005	Enhanced Efficiency LDMOS Based Feed Forward Amplifier
ZL03808303.5	3808303.5	Granted	1647369	China (Peoples Republic)	11/4/2009	2/12/2003	7/27/2005	Feed Forward RF Power Amplifier with High Efficiency Main Amplifier and Highly Linear Error Amplifier
ZL03820261.1	3820261.1	Granted	1679232	China (Peoples Republic)	6/23/2010	8/19/2003	10/5/2005	Enhanced Efficiency LDMOS Based Feed Forward Amplifier
HK1061471	4101972.6	Granted		Hong Kong	8/1/2008	12/22/2000		Microwave amplifier with bypass segment
	4102209.9	Pending		Hong Kong		3/24/2004		Four port hybrid microstrip circuit of Lange type
1061309	4104336.1	Granted	HK1061309	Hong Kong	10/13/2006	9/12/2001	9/10/2004	Beam adjusting device
HK1066103	4108875.9	Granted	1066103A	Hong Kong	4/13/2007	2/13/2002	3/11/2005	CIRCUIT BOARD CONNECTOR
1590893	4704477.1	Granted	EP1590893	European Patent Convention	1/21/2009	1/22/2004	11/2/2005	Feed Forward Amplifier System Employing Self-Generating Alignment Lists and Adaptive Controller
1590893	4704477.1	Granted	EP1590893	France	1/21/2009	1/22/2004	11/2/2005	Feed Forward Amplifier System Employing Self-Generating Alignment Lists and Adaptive Controller
6.02004E+11	4704477.1	Granted	EP1590893	Germany	1/21/2009	1/22/2004	11/2/2005	Feed Forward Amplifier System Employing Self-Generating Alignment Lists and Adaptive Controller
1609238	4710155.5	Granted	EP1609238	European Patent Convention	7/11/2011	2/11/2004	12/28/2005	Enhanced Efficiency Feed Forward Power Amplifier Utilizing Reduced Cancellation Bandwidth and Small Error Amplifier
1620918	4730486	Granted	EP1620918	European Patent Convention	8/13/2008	4/30/2004	11/11/2004	Microwave transmission unit including lightning protection
1620918	4730486	Granted	EP1620918	Finland	11/14/2008	4/30/2004	11/11/2004	Microwave transmission unit including lightning protection
1620918	4730486	Granted	EP1620918	France	8/13/2008	4/30/2004	11/11/2004	Microwave transmission unit including lightning protection
6.02004E+11	4730486	Granted	EP1620918	Germany	8/8/2008	4/30/2004	11/11/2004	Microwave transmission unit including lightning protection
1620918	4730486	Granted	EP1620918	United Kingdom	12/2/2008	4/30/2004	11/11/2004	Microwave transmission unit including lightning protection
1620918	4730486	Granted	EP1620918	Sweden	8/13/2008	4/30/2004		Microwave transmission unit including lightning protection
	4756534.6	Published	EP1645094	European Patent Convention		7/1/2004	4/12/2006	Digital Predistortion System and Method for Correcting Memory Effects within an RF Power Amplifier
	4759204.3	Published	EP1614244	European Patent Convention		4/7/2004	1/11/2006	Combiner Alignment by Adjusting the Digital Input of Transmitter Modules Based on Anti-Phase Pilot Signals
	4759806.5	Published	EP1614224	European Patent Convention		4/7/2004	1/1/2006	Additive Digital Predistortion System Employing Parallel Path Coordinate Conversion
	4760873.2	Published	EP1620942	European Patent Convention		5/4/2004	2/1/2006	RF Amplifier Employing Active Load Linearization
1695438	4798914	Granted	EP1695438	European Patent Convention	7/4/2011	11/20/2004	6/2/2005	Amplifier Linearization Using Nonlinear Predistortion
	5713403.3	Published	WO2005091802	European Patent Convention		2/14/2005	6/10/2005	System and method for control of loop alignment in adaptive feed forward amplifiers
	5713947.9	Allowed	EP1749359	European Patent Convention		2/23/2005	6/10/2005	Digital predistortion system and method for high efficiency transmitters
	5722448.7	Published	EP1738511	European Patent Convention		1/18/2005	4/8/2005	Wideband Enhanced Digital Injection Predistortion System and Method
	5723756.2	Published	EP1723725	European Patent Convention		2/24/2005	11/22/2006	Digital predistortion system and method for linearizing an RF power amplifier with nonlinear gain characteristics and memory ef
	5728245.1	Published	EP1736042	European Patent Convention		3/9/2005	9/29/2005	Rf-power amplifier assembly with heat pipe enhanced pallet
	5749908.9	Published	EP1743397	European Patent Convention		5/3/2005	10/11/2005	Aperture antenna element

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	5760621.2	Published	WO2006016964	European Patent Convention		6/14/2005	2/16/2006	Digital Transmitter System Employing Self-Generating Predistortion Parameter Lists and Adaptive Controller
	5772396.7	Published	WO2006017115	European Patent Convention		7/7/2005	2/16/2006	System and Method for Differential IQ Delay Compensation in a Communications System Utilizing Adaptive AGM Compensation
	5792467.2	Published	WO2006043880	European Patent Convention		10/14/2005	4/27/2006	A DC-extracting arrangement
	5804666.5	Allowed	EP1815557	European Patent Convention		11/25/2005	8/8/2007	Antenna control system
1810433	5812850.5	Granted	WO2006052377	European Patent Convention	11/28/2012	10/12/2005	5/18/2006	System and Method for Forward Path Gain Control in a Digital Predistortion Linearized Transmitter
	6720451.1	Published	EP1849207	European Patent Convention		2/8/2006	10/31/2007	Dual Mode Ceramic Filter
1869762	6739069	Granted	EP1869762	European Patent Convention	11/21/2012	3/20/2006	12/26/2007	RF Power Amplifier System Employing An Analog Predistortion Module Using Zero Crossings
1915798	6747834.7	Granted	EP1886381	European Patent Convention	4/28/2011	5/31/2006	2/13/2008	Improved AEDT
1915798	6747834.7	Granted	EP1915798	European Patent Convention	8/24/2011	5/31/2006	12/7/2006	Phase Shifter
1872472	6749797.4	Granted	EP1872472	European Patent Convention	11/2/2011	11/15/2007	1/2/2008	Adaptive Predistortion Linearized Amplifier System Employing Selective Sampling
1872472	6749797.4	Granted	EP1872472	Finland	11/2/2011	11/15/2007	1/2/2008	Adaptive Predistortion Linearized Amplifier System Employing Selective Sampling
1872472	6749797.4	Granted	EP1872472	France	11/2/2011	11/15/2007	1/2/2008	Adaptive Predistortion Linearized Amplifier System Employing Selective Sampling
6.02006E+11	6749797.4	Granted	EP1872472	Germany	12/30/2011	11/15/2007	1/2/2008	Adaptive Predistortion Linearized Amplifier System Employing Selective Sampling
1872472	6749797.4	Granted	EP1872472	Sweden	11/2/2011	11/15/2007	1/2/2008	Adaptive Predistortion Linearized Amplifier System Employing Selective Sampling
	6758086	Published	WO2007/011295	European Patent Convention		7/21/2006	1/25/2007	INTERLEAVED MULTIPLE BAND ANTENNA
1867120	6758256.9	Granted	EP1867120	European Patent Convention	10/13/2011	4/3/2006	10/19/2006	System and Method for Using the Pilot Frequency from a Positive Feedback Pilot Generation and Detection Circuit to Improve Seco
6.02006E+11	6758256.9	Granted	EP1867120	Germany	10/13/2011	4/3/2006	10/19/2006	System and Method for Using the Pilot Frequency from a Positive Feedback Pilot Generation and Detection Circuit to Improve Seco
	6790120.7	Published	EP1929846	European Patent Convention		8/31/2006	3/8/2007	System and Method for Shielded Coaxial Cable Attachment
	6803235.8	Published	EP1929804	European Patent Convention		9/8/2006	3/15/2007	Distributed Antenna System Using Signal Precursors
	6803510.4	Published	EP1932308	European Patent Convention		9/13/2006	3/29/2007	Amplifier System Employing Analog Polynomial Predistortion with Sub-Nyquist Digital Predistortion
1952479	6820900.6	Granted	EP1952479	European Patent Convention	11/23/2011	11/16/2006	8/6/2008	Smart Pole
6.02006E+11	6820900.6	Granted	EP1952479	Germany	11/23/2011	11/16/2006	8/6/2008	Smart Pole
ES2386296	6820900.6	Granted	EP1952479	Spain	11/23/2011	11/16/2006	8/6/2008	Smart Pole
	7023027.1	Published	EP1992598	European Patent Convention		11/28/2007	11/19/2008	MICROWAVE DIELECTRIC CERAMIC
	7751869.4	Allowed	EP1997186	European Patent Convention		3/2/2007	9/13/2007	Broadband single vertical polarized base station antenna
	7754157.1	Published	EP2005522	European Patent Convention		3/29/2007	11/8/2007	Broadband Dual Polarized Base Station Antenna
	7775931.4	Published	EP2011246	European Patent Convention		4/20/2007	11/1/2007	System and Method for Estimation and Compensation of Radiated Feedback Coupling in a High Gain Repeater
	7794123.5	Published	EP2054986	European Patent Convention		8/22/2007	5/6/2009	Active Lighting Protection
	7808782.2	Published	EP2062355	European Patent Convention		8/31/2007	3/20/2008	Filter with external Coupling pin
	7867699.6	Published	EP2103002	European Patent Convention		12/11/2007	9/23/2009	Time division duplex forward-to-reverse transition signal generator
	8713113.2	Published	EP2122904	European Patent Convention		1/11/2008	11/25/2009	An improved digital radio head system and method
	8713187.6	Published	EP2119028	European Patent Convention		1/22/2008	11/18/2009	Adaptive Echo Cancellation For An On-Frequency RF Repeater Using A Weighted Power Spectrum
	8726390.1	Published	EP2135323	European Patent Convention		3/4/2008	9/12/2008	Single Pole Vertically Polarized Variable Azimuth Beam Width Antenna for Wireless Network
2135325	8726673	Granted	EP2135325	European Patent Convention	7/26/2012	3/7/2008	9/12/2008	Dual staggered vertically polarized variable azimuth beam width antenna for wireless network
2135325	8726673	Granted	EP2135325	France	7/26/2012	3/7/2008	9/12/2008	Dual staggered vertically polarized variable azimuth beam width antenna for wireless network
6.02008E+11	8726673	Granted	EP2135325	Germany	6/6/2012	3/7/2008	9/12/2008	Dual staggered vertically polarized variable azimuth beam width antenna for wireless network
	8767748	Published	EP2158639	European Patent Convention		5/16/2008	11/27/2008	Remote Antenna Positioning Data Acquisition
	8767833	Published	EP2158711	European Patent Convention		5/20/2008	12/4/2008	ON FREQUENCY REPEATER WITH AGC STABILITY DETERMIANTION
	8768385	Published	WO2008156633	European Patent Convention		6/11/2008	12/24/2008	Triple Stagger Offsettable Azimuth Beam Width Controlled Antenna for Wireless Network
	8847232.9	Allowed	EP2218119	European Patent Convention		11/6/2008	8/18/2010	Variable Stagger Reflector for Azimuth Beam Width Controlled Antenna
	8853735.2	Published	EP2232632	European Patent Convention		11/25/2008	9/29/2010	Linear Array with Azimuth Beam Augmentation by Axial Rotation
	8854666.8	Published	EP2232633	European Patent Convention		11/25/2008	9/29/2010	Single Drive Variable Azimuth and Beam Tilt Antenna for Wireless Network
69716935	9760169.7	Granted	DE69716935T	Germany	12/4/2003	8/7/1997	7/3/2003	Adaptive digital predistortion linearization and feed-forward correction of RF-power amplifier
	9819998.7	Published	EP2335365	European Patent Convention		10/9/2009	4/15/2010	Crest Factor Reduction (CFR) For Downlink LTE by Transmitting Phase Shifted Resource Blocks
	10786645.1	Published	EP2441120	European Patent Convention		6/7/2010	12/16/2010	Multi element amplitude and phase compensated antenna array with adaptive pre-distortion for Wireless Network
2372903	11154332.8	Granted	EP2372903	European Patent Convention	7/4/2012	9/10/2004	10/5/2011	Method for Aligning Feed Forward Loops
6.02004E+11	11154332.8	Granted	EP2372903	Germany	7/4/2012	9/10/2004	10/5/2011	Method for Aligning Feed Forward Loops
	11763468.3	Pending		European Patent Convention		3/31/2011		System and Method for performance enhancement in heterogeneous wireless access network
	12173565.8	Pending		European Patent Convention		6/26/2012		45 Deg Dual Broad Band Base Station Antenna
	18021146.1	Published	CN1483242	China (Peoples Republic)		12/22/2001	3/17/2004	Feed forward amplifier loop control utilizing IF signal processing
315677	19984034	Granted	NO984034	Norway	10/6/2003	9/2/1998	10/29/1998	Method and device for monitoring a mobile telephone repeater
316050	19985514	Granted	NO985514	Norway	12/1/2003	11/26/1998	11/26/1998	Repeater with variable bandwidth
118934	19992509	Granted	FI992509	Finland	5/15/2008	11/24/1999	6/1/2000	Microstrip filter device
	20125681	Pending		Finland		6/20/2012		Arrangement and method for coupling between adjustable resonators
29512952	29512952.2	Granted		Germany	10/19/1995	8/11/1995		An antenna device with two radiating elements having an adjustable phase difference between the radiating elements
69714975	69714975.7	Granted		Germany	8/28/2002	8/27/1998		Method and device for monitoring a mobile telephone repeater
98293	85105778	Granted		Taiwan	9/21/1998	5/16/1996		Movable dielectric body for controlling propagation velocity in a feed line
124051	87103453	Granted	HK1033210	Taiwan	4/23/2001	3/10/1998	2/18/2005	Dual band antenna
548910	91103539	Granted		Taiwan	8/21/2003	2/27/2002		Intelligent multiplexers in an antenna line management system
792464	95937291.3	Granted	EP0792464	European Patent Convention	8/18/2004	11/15/1995	5/30/1996	Measuring line for a coaxial conductor for determining energy throughflow and standing wave ratios
792464	95937291.3	Granted	EP0792464	France	8/18/2004	11/15/1995	5/30/1996	Measuring line for a coaxial conductor for determining energy throughflow and standing wave ratios
792464	95937291.3	Granted	EP0792464	Italy	8/18/2004	11/15/1995	5/30/1996	Measuring line for a coaxial conductor for determining energy throughflow and standing wave ratios
792464	95937291.3	Granted	EP0792464	United Kingdom	8/18/2004	11/15/1995	5/30/1996	Measuring line for a coaxial conductor for determining energy throughflow and standing wave ratios
ZL96193925.7	96193925.7	Granted	1184562	China (Peoples Republic)	12/25/2002	5/24/1996	6/10/1998	Movable dielectric body for controlling propagation velocity in a feed line

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ZL96193941.9	96193941.9	Granted	1184563	China (Peoples Republic)	11/13/2002	5/14/1996	6/10/1998	An antenna device with two radiating elements having an adjustable phase difference between the radiating elements
826250	96914514.3	Granted	EP0826250	France	3/27/2002	5/14/1996	11/21/1996	An antenna device with two radiating elements having an adjustable phase difference between the radiating elements
826250	96914514.3	Granted	EP0826250	United Kingdom	3/27/2002	5/14/1996	11/21/1996	An antenna device with two radiating elements having an adjustable phase difference between the radiating elements
832508	96920089.8	Granted	EP0832508	European Patent Convention	12/5/2001	5/24/1996	11/28/1996	Movable dielectric body for controlling propagation velocity in a feed line
832508	96920089.8	Granted	EP0832508	France	12/5/2001	5/24/1996	11/28/1996	Movable dielectric body for controlling propagation velocity in a feed line
69617681	96920089.8	Granted	EP0832508	Germany	12/5/2001	5/24/1996	11/28/1996	Movable dielectric body for controlling propagation velocity in a feed line
832508	96920089.8	Granted	EP0832508	Italy	12/5/2001	5/24/1996	11/28/1996	Movable dielectric body for controlling propagation velocity in a feed line
832508	96920089.8	Granted	EP0832508	United Kingdom	12/5/2001	5/24/1996	11/28/1996	Movable dielectric body for controlling propagation velocity in a feed line
872024	96924235.3	Granted	EP0872024	Denmark	2/17/2003	7/12/1996	6/2/1997	Amplifier for antenna and using integrated dual duplex filters
872024	96924235.3	Granted	EP0872024	European Patent Convention	10/16/2002	7/12/1996	6/2/1997	Amplifier for antenna and using integrated dual duplex filters
872024	96924235.3	Granted	EP0872024	Finland	10/16/2002	7/12/1996	6/2/1997	Amplifier for antenna and using integrated dual duplex filters
69624377	96924235.3	Granted	EP0872024	Germany	7/10/2003	7/12/1996	6/2/1997	Amplifier for antenna and using integrated dual duplex filters
872024	96924235.3	Granted	EP0872024	Italy	10/16/2002	7/12/1996	6/2/1997	Amplifier for antenna and using integrated dual duplex filters
2185786	96924235.3	Granted	EP0872024	Spain	10/16/2002	7/12/1996	6/2/1997	Amplifier for antenna and using integrated dual duplex filters
872024	96924235.3	Granted	EP0872024	United Kingdom	10/16/2002	7/12/1996	6/2/1997	Amplifier for antenna and using integrated dual duplex filters
ZL97192826.6	97192826.6	Granted	1212797	China (Peoples Republic)	10/20/2004	2/19/1997	3/31/1999	Method and device for monitoring a mobile telephone repeater
ZL97194636.1	97194636.1	Granted	1218583	China (Peoples Republic)	12/10/2003	11/13/1998	6/2/1999	Flat antenna
ZL97196271.5	97196271.5	Granted	1225206	China (Peoples Republic)	6/18/2003	6/23/1997	8/4/1999	Method and system for tuning resonance modules
803974	97302845.9	Granted	EP0803974	European Patent Convention	2/4/2004	4/24/1997	10/29/1997	Broadband Amplifier with Quadrature Pilot
803974	97302845.9	Granted	EP0803974	United Kingdom	2/4/2004	4/24/1997	10/29/1997	Broadband Amplifier with Quadrature Pilot
885491	97907503.3	Granted	EP0885491	European Patent Convention	8/28/2002	8/27/1998	12/23/1998	Method and device for monitoring a mobile telephone repeater
885491	97907503.3	Granted	EP0885491	France	8/28/2002	8/27/1998	12/23/1998	Method and device for monitoring a mobile telephone repeater
885491	97907503.3	Granted	EP0885491	Italy	8/28/2002	8/27/1998	12/23/1998	Method and device for monitoring a mobile telephone repeater
885491	97907503.3	Granted	EP0885491	Spain	8/28/2002	8/27/1998	12/23/1998	Method and device for monitoring a mobile telephone repeater
885491	97907503.3	Granted	EP0885491	United Kingdom	8/28/2002	8/27/1998	12/23/1998	Method and device for monitoring a mobile telephone repeater
EP0890218	97915092.7	Granted	EP0890218	European Patent Convention	1/8/2003	8/11/1998	1/13/1999	Adaptive compensation of RF amplifier distortion by injecting predistortion signal derived from respectively different function
890218	97915092.7	Granted	EP0890218	France	1/8/2003	8/11/1998	1/13/1999	Adaptive compensation of RF amplifier distortion by injecting predistortion signal derived from respectively different function
69718304.1	97915092.7	Granted	EP0890218	Germany	1/8/2003	8/11/1998	1/13/1999	Adaptive compensation of RF amplifier distortion by injecting predistortion signal derived from respectively different function
890218	97915092.7	Granted	EP0890218	Sweden	1/8/2003	8/11/1998	1/13/1999	Adaptive compensation of RF amplifier distortion by injecting predistortion signal derived from respectively different function
890218	97915092.7	Granted	EP0890218	United Kingdom	1/8/2003	8/11/1998	1/13/1999	Adaptive compensation of RF amplifier distortion by injecting predistortion signal derived from respectively different function
894372	97922263.5	Granted	EP0894372	Denmark	3/17/2003	5/2/1997	11/13/1997	Channel selective repeater
894372	97922263.5	Granted	EP0894372	European Patent Convention	11/27/2002	5/2/1997	11/13/1997	Channel selective repeater
894372	97922263.5	Granted	EP0894372	Finland	11/27/2002	5/2/1997	11/13/1997	Channel selective repeater
69717430	97922263.5	Granted	EP0894372	Germany	4/15/2004	5/2/1997	11/13/1997	Channel selective repeater
894372	97922263.5	Granted	EP0894372	Italy	11/27/2002	5/2/1997	11/13/1997	Channel selective repeater
894372	97922263.5	Granted	EP0894372	Spain	11/27/2002	5/2/1997	11/13/1997	Channel selective repeater
894372	97922263.5	Granted	EP0894372	United Kingdom	11/27/2002	5/2/1997	11/13/1997	Channel selective repeater
939975	97923376.4	Granted	EP0939975	France	10/29/2003	5/12/1997	9/8/1999	Flat antenna
69725874	97923376.4	Granted	EP0939975	Germany	10/29/2003	5/12/1997	9/8/1999	Flat antenna
939975	97923376.4	Granted	EP0939975	United Kingdom	10/29/2003	5/12/1997	9/8/1999	Flat antenna
939975	97923376.4	Granted	EP0939975	European Patent Convention	10/29/2003	11/16/1998	9/8/1999	Flat antenna
894373	97926327.4	Granted	EP0894373	Austria	8/8/2001	5/28/1997	2/3/1999	Repeater with variable bandwidth
894373	97926327.4	Granted	EP0894373	Belgium	8/8/2001	5/28/1997	2/3/1999	Repeater with variable bandwidth
894373	97926327.4	Granted	EP0894373	France	8/8/2001	5/28/1997	2/3/1999	Repeater with variable bandwidth
69706044	97926327.4	Granted	EP0894373	Germany	8/8/2001	5/28/1997	2/3/1999	Repeater with variable bandwidth
894373	97926327.4	Granted	EP0894373	Italy	8/8/2001	5/28/1997	2/3/1999	Repeater with variable bandwidth
894373	97926327.4	Granted	EP0894373	Spain	8/8/2001	5/28/1997	2/3/1999	Repeater with variable bandwidth
894373	97926327.4	Granted	EP0894373	Switzerland	8/8/2001	5/28/1997	2/3/1999	Repeater with variable bandwidth
894373	97926327.4	Granted	EP0894373	United Kingdom	8/8/2001	5/28/1997	2/3/1999	Repeater with variable bandwidth
913031	97932068.6	Granted	EP0913031	Denmark	3/8/2004	6/23/1997	1/15/1998	Method and system for tuning resonance modules
913031	97932068.6	Granted	EP0913031	European Patent Convention	11/19/2003	6/23/1997	1/15/1998	Method and system for tuning resonance modules
913031	97932068.6	Granted	EP0913031	Finland	11/19/2003	6/23/1997	1/15/1998	Method and system for tuning resonance modules
913031	97932068.6	Granted	EP0913031	United Kingdom	11/19/2003	6/23/1997	1/15/1998	Method and system for tuning resonance modules
928515	97937169.7	Granted	EP0928515	European Patent Convention	9/10/2003	8/7/1997	7/14/1999	Adaptive digital predistortion linearization and feed-forward correction of RF power amplifier
928515	97937169.7	Granted	EP0928515	France	9/10/2003	8/7/1997	7/14/1999	Adaptive digital predistortion linearization and feed-forward correction of RF power amplifier
928515	97937169.7	Granted	EP0928515	Italy	9/10/2003	8/7/1997	7/14/1999	Adaptive digital predistortion linearization and feed-forward correction of RF power amplifier
928515	97937169.7	Granted	EP0928515	Sweden	9/10/2003	8/7/1997	7/14/1999	Adaptive digital predistortion linearization and feed-forward correction of RF power amplifier
990274	98093134.9	Granted	EP0990274	European Patent Convention	1/22/2003	6/17/1998	4/5/2000	Temperature compensation structure for resonator cavity
990274	98093134.9	Granted	EP0990274	Finland	1/22/2003	6/17/1998	4/5/2000	Temperature compensation structure for resonator cavity
69810927.9	98093134.9	Granted	EP0990274	Germany	1/22/2003	6/17/1998	4/5/2000	Temperature compensation structure for resonator cavity
990274	98093134.9	Granted	EP0990274	Italy	1/22/2003	6/17/1998	4/5/2000	Temperature compensation structure for resonator cavity
990274	98093134.9	Granted	EP0990274	United Kingdom	1/22/2003	6/17/1998	4/5/2000	Temperature compensation structure for resonator cavity
859422	98300900.2	Granted	EP0859422	European Patent Convention	5/19/2004	2/6/1998	8/19/1998	High-frequency filter
ZL98801045.3	98801045.3	Granted	1234915	China (Peoples Republic)	11/5/2003	7/8/1998	11/10/1999	Antenna device with improved channel isolation

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ZL98802015.7	98802015.7	Granted	1244297	China (Peoples Republic)	10/29/2003	1/16/1998	2/9/2000	Antenna element
ZL98802037.8	98802037.8	Granted	1244299	China (Peoples Republic)	10/15/2003	1/30/1998	2/9/2000	Antenna operating with two isolated channels
CN1133231C	98805852.9	Granted	1259231	China (Peoples Republic)	12/31/2003	5/18/1998	7/5/2000	Microwave resonator with dielectric tuning body resiliently secured to a movable rod by spring means
CN1135649C	98809706	Granted	1272967	China (Peoples Republic)	1/21/2004	8/26/1998	11/8/2000	Multi surface coupled coaxial resonator
954886	98901630.8	Granted	EP0954886	France	11/10/2004	1/16/1998	11/10/1999	Antenna element
69827471.7	98901630.8	Granted	EP0954886	Germany	11/10/2004	1/16/1998	11/10/1999	Antenna element
954886	98901630.8	Granted	EP0954886	Italy	11/10/2004	1/16/1998	11/10/1999	Antenna element
954886	98901630.8	Granted	EP0954886	United Kingdom	11/10/2004	1/16/1998	11/10/1999	Antenna element
954886	98901630.8	Granted	EP0954886	European Patent Convention	11/10/2004	6/30/1999	11/10/1999	Antenna element
958636	98903324.6	Granted	EP0958636	European Patent Convention	4/5/2006	1/30/1998	8/6/1998	Antenna operating with two isolated channels
958636	98903324.6	Granted	EP0958636	France	4/5/2006	1/30/1998	8/6/1998	Antenna operating with two isolated channels
69834102.3	98903324.6	Granted	EP0958636	Germany	3/23/2006	1/30/1998	8/6/1998	Antenna operating with two isolated channels
958636	98903324.6	Granted	EP0958636	Italy	4/5/2006	1/30/1998	8/6/1998	Antenna operating with two isolated channels
958636	98903324.6	Granted	EP0958636	United Kingdom	4/5/2006	1/30/1998	8/6/1998	Antenna operating with two isolated channels
986833	98928695	Granted	EP0986833	Finland	12/29/2004	5/18/1998	10/12/1998	Microwave resonator with dielectric tuning body resiliently secured to a movable rod by spring means
69828395	98928695	Granted	EP0986833	Germany	12/8/2005	5/18/1998	10/12/1998	Microwave resonator with dielectric tuning body resiliently secured to a movable rod by spring means
986833	98928695	Granted	EP0986833	United Kingdom	12/29/2004	5/18/1998	10/12/1998	Microwave resonator with dielectric tuning body resiliently secured to a movable rod by spring means
927439	98934067.4	Granted	WO9905754	European Patent Convention	2/16/2005	7/8/1998	2/4/1999	Antenna device with improved channel isolation
927439	98934067.4	Granted	WO9905754	France	2/16/2005	7/8/1998	2/4/1999	Antenna device with improved channel isolation
69829037.2	98934067.4	Granted	WO9905754	Germany	2/16/2005	7/8/1998	2/4/1999	Antenna device with improved channel isolation
927439	98934067.4	Granted	WO9905754	United Kingdom	2/16/2005	7/8/1998	2/4/1999	Antenna device with improved channel isolation
1034576	98949970.2	Granted	EP1034576	European Patent Convention	4/24/2002	8/26/1998	8/4/1999	Multi surface coupled coaxial resonator
69805095	98949970.2	Granted	EP1034576	Germany	4/24/2002	8/26/1998	8/4/1999	Multi surface coupled coaxial resonator
1034576	98949970.2	Granted	EP1034576	Sweden	4/24/2002	8/26/1998	4/8/1999	Multi surface coupled coaxial resonator
1034576	98949970.2	Granted	EP1034576	United Kingdom	4/24/2002	8/26/1998	4/8/1999	Multi surface coupled coaxial resonator
1038332	98962782.3	Granted	EP1038332	European Patent Convention	4/8/2008	12/7/1998	9/27/2000	Dual band antenna
1038332	98962782.3	Granted	EP1038332	France	4/8/2008	12/7/1998	9/27/2000	Dual band antenna
69839348.1	98962782.3	Granted	EP1038332	Germany	7/17/2008	12/7/1998	9/27/2000	Dual band antenna
1038332	98962782.3	Granted	EP1038332	Italy	4/8/2008	12/7/1998	9/27/2000	Dual band antenna
2301218	98962782.3	Granted	EP1038332	Spain	4/8/2008	12/7/1998	9/27/2000	Dual band antenna
1038332	98962782.3	Granted	EP1038332	United Kingdom	4/8/2008	12/7/1998	9/27/2000	Dual band antenna
998026	99308179.3	Granted	EP0998026	European Patent Convention	2/23/2006	10/18/1999	5/3/2000	Multi-Channel Amplification System Using Mask Detection
998026	99308179.3	Granted	EP0998026	France	2/23/2006	10/18/1999	5/3/2000	Multi-Channel Amplification System Using Mask Detection
998026	99308179.3	Granted	EP0998026	Sweden	2/23/2006	10/18/1999	5/3/2000	Multi-Channel Amplification System Using Mask Detection
998026	99308179.3	Granted	EP0998026	United Kingdom	2/23/2006	10/18/1999	5/3/2000	Multi-Channel Amplification System Using Mask Detection
996222	99308184.3	Granted	EP0996222	France	1/2/2004	10/18/1999	4/26/2000	Feed Forward Amplification System Having Mask Detection Compensation
996222	99308184.3	Granted	EP0996222	United Kingdom	1/2/2004	10/18/1999	4/26/2000	Feed Forward Amplification System Having Mask Detection Compensation
996222	99308184.3	Granted	EP0996222	Sweden	1/2/2004	10/18/1999	4/26/2000	Feed Forward Amplification System Having Mask Detection Compensation
996223	99308185	Granted	EP0996223	European Patent Convention	12/28/2005	10/18/1999	4/26/2000	Amplification System Having Mask Detection
996223	99308185	Granted	EP0996223	France	12/28/2005	10/18/1999	4/26/2000	Amplification System Having Mask Detection
996223	99308185	Granted	EP0996223	Sweden	12/28/2005	10/18/1999	4/26/2000	Amplification System Having Mask Detection
996223	99308185	Granted	EP0996223	United Kingdom	12/28/2005	10/18/1999	4/26/2000	Amplification System Having Mask Detection
996224	99308207.2	Granted	EP0996224	European Patent Convention	3/3/2004	10/18/1999	4/26/2000	Amplification System having Mask Detection and Bias Compensation
996224	99308207.2	Granted	EP0996224	United Kingdom	4/21/2004	10/18/1999	4/26/2000	Amplification System having Mask Detection and Bias Compensation
1001525	99309010.9	Granted	EP1001525	European Patent Convention	8/17/2005	11/12/1999	5/17/2000	Feed Forward Compensation Using Phase and Time Modulation
1001525	99309010.9	Granted	EP1001525	Sweden	8/17/2005	11/12/1999	5/17/2000	Feed Forward Compensation Using Phase and Time Modulation
1001525	99309010.9	Granted	EP1001525	United Kingdom	8/17/2005	11/12/1999	5/17/2000	Feed Forward Compensation Using Phase and Time Modulation
CN1214488C	99801502.4	Granted	1286816	China (Peoples Republic)	8/10/2005	6/9/1999	3/7/2001	Dual band antenna
1032691	99802359	Granted		Hong Kong	10/29/2003	1/19/1999		Circuit arrangement for reducing intermodulation in a bandpass filter system
CN1152451C	99807397	Granted	1305650	China (Peoples Republic)	6/2/2004	6/18/1999	7/25/2001	Device for tuning of a dielectric resonator
ZL99809270.3	99809270.3	Granted	1311906	China (Peoples Republic)	4/7/2004	8/12/1999	9/5/2001	Coaxial cavity resonator
EP1051808	99903156	Granted	EP1051808	European Patent Convention	7/17/2002	1/19/1999	11/15/2000	Circuit arrangement for reducing intermodulation in a bandpass filter system
988694	99916474.2	Granted	EP0988694	European Patent Convention	6/22/2005	4/7/1999	3/29/2000	Dynamic Predistortion Compensation for a Power Amplifier
988694	99916474.2	Granted	EP0988694	Finland	6/22/2005	4/7/1999	3/29/2000	Dynamic Predistortion Compensation for a Power Amplifier
988694	99916474.2	Granted	EP0988694	Sweden	6/22/2005	4/7/1999	3/29/2000	Dynamic Predistortion Compensation for a Power Amplifier
988694	99916474.2	Granted	EP0988694	United Kingdom	6/22/2005	4/7/1999	3/29/2000	Dynamic Predistortion Compensation for a Power Amplifier
995261	99917362.8	Granted	EP0995261	European Patent Convention	2/22/2006	4/7/1999	4/26/2000	Adaptive Biasing in a Power Amplifier
EP0995261	99917362.8	Granted	EP0995261	Finland	2/22/2006	4/7/1999	4/26/2000	Adaptive Biasing in a Power Amplifier
995261	99917362.8	Granted	EP0995261	France	2/22/2006	4/7/1999	4/26/2000	Adaptive Biasing in a Power Amplifier
69929964T	99917362.8	Granted	EP0995261	Germany	2/22/2006	4/7/1999	4/26/2000	Adaptive Biasing in a Power Amplifier
995261	99917362.8	Granted	EP0995261	Sweden	2/22/2006	4/7/1999	4/26/2000	Adaptive Biasing in a Power Amplifier
995261	99917362.8	Granted	EP0995261	United Kingdom	2/22/2006	4/7/1999	4/26/2000	Adaptive Biasing in a Power Amplifier
1088362	99931732.4	Allowed	EP1088362	European Patent Convention	11/15/2006	6/18/1999	4/4/2001	Device for tuning of a dielectric resonator
1088362	99931732.4	Granted	EP1088362	Finland	11/15/2006	6/18/1999	4/4/2001	Device for tuning of a dielectric resonator

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1088362	99931732.4	Allowed	EP1088362	France	11/15/2006	6/18/1999	4/4/2001	Device for tuning of a dielectric resonator
69934005.5	99931732.4	Granted	EP1088362	Germany	11/15/2006	6/18/1999	4/4/2001	Device for tuning of a dielectric resonator
1088362	99931732.4	Allowed	EP1088362	United Kingdom	11/15/2006	6/18/1999	4/4/2001	Device for tuning of a dielectric resonator
1088362	99931732.4	Granted	EP1088362	Denmark	11/15/2006	6/18/1999	4/4/2001	Device for tuning of a dielectric resonator
1072065	99935211.5	Granted	EP1072065	European Patent Convention	3/13/2002	6/9/1999	1/31/2001	Dual band antenna
1072065	99935211.5	Granted	EP1072065	France	3/13/2002	6/9/1999	1/31/2001	Dual band antenna
69901026.8	99935211.5	Granted	DE69901026D	Germany	8/22/2002	6/9/1999	4/18/2002	Dual band antenna
1072065	99935211.5	Granted	EP1072065	Greece	3/13/2002	6/9/1999	1/31/2001	Dual band antenna
2153342	99935211.5	Granted	ES1072065	Spain	3/13/2002	6/9/1999	1/31/2001	Dual band antenna
1072065	99935211.5	Granted	EP1072065	United Kingdom	3/13/2002	6/9/1999	1/31/2001	Dual band antenna
EP1092302	99938714.5	Granted	EP1092302	European Patent Convention	2/25/2004	7/1/1999	4/18/2001	Switchable Combiner/Splitter
1092302	99938714.5	Granted	EP1092302	United Kingdom	2/25/2004	7/1/1999	1/13/2000	Switchable Combiner/Splitter
1118134	99943573.8	Granted	EP1118134	Belgium	4/30/2008	8/12/1999	7/25/2001	Coaxial cavity resonator
1118134	99943573.8	Granted	EP1118134	Cyprus, Republic of	2/2/2009	8/12/1999	7/25/2001	Coaxial cavity resonator
1118134	99943573.8	Granted	EP1118134	European Patent Convention	2/2/2009	8/12/1999	7/25/2001	Coaxial cavity resonator
69938626.8	99943573.8	Granted	EP1118134	Germany	6/10/2009	8/12/1999	7/25/2001	Coaxial cavity resonator
1118134	99943573.8	Granted	EP1118134	Ireland	2/2/2009	8/12/1999	7/25/2001	Coaxial cavity resonator
1118134	99943573.8	Granted	EP1118134	Italy	4/30/2008	8/12/1999	7/25/2001	Coaxial cavity resonator
ES2302387	99943573.8	Granted	EP1118134	Spain	7/1/2008	8/12/1999	7/25/2001	Coaxial cavity resonator
1135826	99963753.1	Granted	EP1135826	European Patent Convention	3/12/2008	11/24/1999	9/26/2001	Microstrip filter device
1135826	99963753.1	Granted	EP1135826	France	3/12/2008	11/24/1999	9/26/2001	Microstrip filter device
69938361.7	99963753.1	Granted	EP1135826	Germany	2/26/2008	11/24/1999	9/26/2001	Microstrip filter device
1135826	99963753.1	Granted	EP1135826	United Kingdom	3/12/2008	11/24/1999	9/26/2001	Microstrip filter device
176005	200300665	Granted	DK176005	Denmark	11/21/2005	5/2/2003	11/3/2004	Microwave transmission unit including lightning protection
826250	960914514.3	Granted	EP0826250	European Patent Convention	3/27/2002	5/14/1996	11/21/1996	An antenna device with two radiating elements having an adjustable phase difference between the radiating elements
990274	980931349.9	Granted	EP0990274	Sweden	1/22/2003	6/17/1998	4/5/2000	Temperature compensation structure for resonator cavity
1121080C	988006882.6	Granted	CN1261987	China (Peoples Republic)	9/10/2003	6/17/1998	8/2/2000	Temperature compensation structure for resonator cavity
EP0996222	990308184.3	Granted	EP0996222	European Patent Convention	1/2/2004	10/18/1999	4/26/2000	Feed Forward Amplification System Having Mask Detection Compensation
2002315007	2002315007	Granted	2002315007	Australia	12/20/2007	6/6/2002	1/2/2003	Dual-mode resonator
	2011153357	Pending		Russian Federation		7/6/2010		Multi element amplitude and phase compensated antenna array with adaptive pre-distortion for Wireless Network
1034576	9970003842	Granted	FI973842	Finland	3/31/1999	9/30/1997	3/31/1999	Multi surface coupled coaxial resonator
	19990008402	Published	BR9908402	Brazil		3/1/1999	12/19/2000	Mounting bracket
	19990027553	Published	AU2755399	Australia		3/1/1999	9/20/1999	SYSTEM AND A METHOD FOR TRANSFER OF A DIGITAL INFORMATION CARRYING SIGNAL
	19998002626	Published	CN1289396	China (Peoples Republic)		3/1/1999	3/28/2001	Mounting bracket
TW174832	20010132096	Granted	TW525344B	Taiwan		12/21/2001	3/21/2003	Feed forward amplifier loop control utilizing IF signal processing
	20020025803	Published	GB2377569	United Kingdom		4/6/2001	1/15/2003	Method and apparatus for optimum biasing of cascaded MOSFET radio-frequency devices
ZL200580006624.3	20050006624	Granted	1969459	China (Peoples Republic)	11/11/2009	2/24/2005	5/23/2007	Digital predistortion system and method for linearizing an RF power amplifier with nonlinear gain characteristics and memory ef
ZL20058000600.1	20058000600	Granted	101040502	China (Peoples Republic)	3/9/2011	1/18/2005	9/19/2007	Wideband enhanced digital injection predistortion for high efficiency transmitters
ZL200380106210.9	2.0038E+11	Granted	1726637	China (Peoples Republic)	8/19/2009	12/11/2003	1/25/2006	Delay Mismatched Feed Forward Amplifier System Using Penalties and Floors for Control
ZL200380106213.2	2.0038E+11	Granted	1726636	China (Peoples Republic)	8/19/2009	12/11/2003	1/25/2006	Feed Forward System Penalties and Floors for Optimal Control
2.0048E+11	2.0048E+11	Granted	1742442	China (Peoples Republic)	8/6/2008	1/22/2004	3/1/2006	Combined Use of Self-Generating Alignment Lists and Adaptive Controllers to Align a Feed Forward System
	2.0048E+11	Published	1751434	China (Peoples Republic)		2/11/2004	3/22/2006	Enhanced Efficiency Feed Forward Power Amplifier Utilizing Reduced Cancellation Bandwidth and Small Error Amplifier
ZL200480011847.1	2.0048E+11	Granted		China (Peoples Republic)	5/5/2010	11/2/2005		Microwave transmission unit including lightning protection
	2.0048E+11	Published	1886891	China (Peoples Republic)		9/10/2004	12/27/2006	Method for Aligning Feed Forward Loops
ZL200480040603.9	2.0048E+11	Granted	1957526	China (Peoples Republic)	12/2/2009	11/20/2004	5/2/2007	Amplifier Linearization Using Nonlinear Predistortion
ZL200580006627.7	2.0058E+11	Granted		China (Peoples Republic)	9/1/2010	2/23/2005		Digital predistortion system and method for high efficiency transmitters
	2.0058E+11	Published	101142459	China (Peoples Republic)		3/9/2005	3/12/2008	RF power amplifier assembly with heat pipe enhanced pallet
ZL200580007830.6	2.0058E+11	Granted	1998134	China (Peoples Republic)	9/9/2009	2/14/2005	7/11/2007	System and Method for Control of loop alignment for feed forward amplifiers
	2.0058E+11	Published	CN1947303A	China (Peoples Republic)		5/3/2005	4/11/2007	Aperture antenna element
	2.0058E+11	Published	CN1985404	China (Peoples Republic)		7/25/2005	6/20/2007	Reflector assembly
	2.0058E+11	Published		China (Peoples Republic)		7/7/2005	8/29/2007	System and Method for Differential IQ Delay Compensation in a Communications System Utilizing Adaptive ACM Compensation
ZL200580033865.7	2.0058E+11	Granted	CN101073178	China (Peoples Republic)	12/9/2009	10/14/2005	11/30/2007	DC Extract filter device
	2.0058E+11	Published	2.0058E+11	China (Peoples Republic)		10/14/2005	2/6/2008	A DC-extracting arrangement
ZL200580038428.4	2.0058E+11	Granted	CN101057367	China (Peoples Republic)	5/11/2011	11/25/2005	10/17/2007	Antenna control system
ZL200580038443.9	2.0058E+11	Granted		China (Peoples Republic)	10/10/2012	10/12/2005	10/17/2007	System and Method for Forward Path Gain Control in a Digital Predistortion Linearized Transmitter
	2.0058E+11	Published	CN101057368	China (Peoples Republic)		11/25/2005	10/17/2007	Antenna control system
	2.0061E+11	Published	1874330	China (Peoples Republic)		6/19/2001	12/6/2006	System and method for peak power reduction in multiple carrier communications systems
ZL200680011163.3	2.0068E+11	Granted	CN101199112	China (Peoples Republic)	11/10/2010	4/3/2006	6/11/2007	System and Method for Using the Pilot Frequency from a Positive Feedback Pilot Generation and Detection Circuit to Improve Seco
	2.0068E+11	Pending		China (Peoples Republic)		5/31/2006		Improved AEDT
ZL200680019456.6	2.0068E+11	Granted	CN101189760A	China (Peoples Republic)	7/4/2012	5/31/2006	5/28/2008	Phase Shifter
	2.0068E+11	Pending		China (Peoples Republic)		7/21/2006		INTERLEAVED MULTIPLE BAND ANTENNA
	2.0108E+11	Pending		China (Peoples Republic)		7/6/2010		Multi element amplitude and phase compensated antenna array with adaptive pre-distortion for Wireless Network
	2.0058E+12	Published	101023614	China (Peoples Republic)		7/8/2005	8/22/2007	System and Method for Digital Timing Error Correction in a Communications Systems Utilizing Adaptive Predistortion
518507	0004569-0	Granted	WO0249140	Sweden	10/15/2002	12/11/2000	6/20/2002	Wave-guide and a connector therefor

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519389	0100675-8	Granted	SE0100675-8	Sweden	2/25/2003	2/28/2001	8/29/2002	Repeater
520321	0101303-6	Granted	SE0101303	Sweden	6/24/2003	4/11/2001	10/12/2002	CIRCUIT BOARD CONNECTOR
520207	0104182-1	Granted	SE0104182	Sweden	6/10/2003	4/28/2000	12/12/2001	Tuning assembly for a dielectrical resonator in a cavity
CN1242512C	01819589.X	Granted	1478314	China (Peoples Republic)	2/15/2006	10/26/2001	2/25/2004	Microwave antenna with patch mounting device
ZL01820757.X	01820757.X	Granted	CN1481594	China (Peoples Republic)	8/21/2008	12/21/2001	3/10/2004	Method for tuning a radio filter and a system for tuning a radio filter
ZL02813477.X	02813477.X	Granted	1522502	China (Peoples Republic)	12/26/2007	6/28/2002	8/18/2004	System and Method for Post Filtering Peak Power Reduction in Communications Systems
	02823/CHE2007	Pending		India		11/30/2007		MICROWAVE DIELECTRIC CERAMIC
03811058.X	03811058.X	Granted	1653703	China (Peoples Republic)	9/17/2008	3/18/2003	8/10/2005	System and Method for Eliminating Signal Zero Crossings in Single and Multiple Channel Communications Systems
527757	0401941-0	Granted	SE0401941	Sweden	5/30/2006	7/28/2004	1/29/2006	Reflector assembly
528358	0500979-0	Granted	SE528358	Sweden	10/24/2006	10/19/2004	4/29/2005	DC Extract filter device
528903	0501235-6	Granted	SE0501235-6	Sweden	3/13/2007	5/31/2005	11/30/2006	Improved AEDT
528903	0501235-6	Granted	SE0501235	Sweden	3/13/2007	5/31/2005	12/1/2006	Phase Shifter
	0501723-1	Pending		Sweden		7/22/2005		INTERLEAVED MULTIPLE BAND ANTENNA
530248	0601738-8	Granted	SE530248	Sweden	4/8/2008	8/25/2006		Active Lighting Protection
530361	0601890-7	Granted	SE530361	Sweden	5/13/2008	9/14/2006	3/15/2008	Filter with external Coupling pin
5304959	07/961,995	Granted		United States of America	4/19/1994	10/16/1992		Planar Microstrip Balun
5329156	07/994,745	Granted		United States of America	7/12/1994	12/22/1992		Feed Bus for RF Power Transistors
5338974	08/032,227	Granted		United States of America	8/16/1994	3/17/1993		RF Power Transistor Package
5825088	08/037,508	Granted		United States of America	10/20/1998	3/24/1993		Low thermal resistance spring biased RF semiconductor package and mounting structure
5414296	08/236,312	Granted		United States of America	5/9/1995	5/12/1994		Venetian blind cell layout for RF power transistor
5528196	08/369,546	Granted		United States of America	6/18/1996	1/6/1995		Linear RF amplifier having reduced intermodulation distortion
5644268	08/412,479	Granted		United States of America	7/1/1997	3/28/1995		Feed Forward RF amplifier for combined signal and error amplification
5570063	08/444,183	Granted		United States of America	10/29/1996	1/18/1995		RF power amplifier with signal predistortion for improved linearity
5742201	08/594,089	Granted		United States of America	4/21/1998	1/30/1996		Polar envelope correction mechanism for enhancing linearity of RF/Microwave power amplifier
5892397	08/626,239	Granted		United States of America	4/6/1999	3/29/1996		Adaptive compensation of RF amplifier distortion by injecting predistortion signal derived from respectively different function
5796304	08/639,264	Granted		United States of America	8/18/1998	4/24/1996		Broadband Amplifier with Quadrature Pilot
5789927	08/672,576	Granted		United States of America	8/4/1998	6/28/1996		Baseband measurement of RF power amplifier distortion
5799247	08/678,764	Granted		United States of America	8/25/1998	7/11/1996		Filter
5760646	08/685,222	Granted		United States of America	6/2/1998	7/23/1996		Feed forward correction loop with adaptive predistortion injection for linearization of RF power amplifier
5898338	08/717,500	Granted		United States of America	4/27/1999	9/20/1996		Adaptive digital predistortion linearization and feed-forward correction of RF power amplifier
5825089	08/722,698	Granted		United States of America	10/20/1998	9/30/1996		Low thermal resistance spring biased RF semiconductor package mounting structure
5850104	08/779,816	Granted		United States of America	12/15/1998	1/6/1997		Integral lid/clamp for high power transistor
5894250	08/821,246	Granted		United States of America	4/13/1999	3/20/1997		Cavity resonator filter structure having improved cavity arrangement
5905419	08/878,495	Granted		United States of America	5/18/1999	6/18/1997		Temperature compensation structure for resonator cavity
5969584	08/886,990	Granted		United States of America	10/19/1999	7/2/1997		Resonating structure providing notch and bandpass filtering
6041083	08/890,215	Granted		United States of America	3/21/2000	7/9/1997		Method and system for tuning resonance modules
531442	0800434-3	Granted	SE531442	Sweden	4/7/2009	2/25/2008	4/7/2009	Transverse phase shifter
532035	0800435-0	Granted	SE532035	Sweden	10/6/2009	2/25/2008	10/6/2009	Improved Antenna Isolation II
	0801210-6	Pending		Sweden		5/23/2008		Lighting Protection
6078216	09/053,529	Granted		United States of America	6/20/2000	3/31/1998		Aliased wide band performance monitor for adjusting predistortion and vector modulator control parameters of RF amplifier
6046635	09/057,332	Granted		United States of America	4/4/2000	4/8/1998		Dynamic Predistortion Compensation for a Power Amplifier
6028477	09/057,380	Granted		United States of America	2/22/2000	4/8/1999		Adaptive Biasing in a Power Amplifier
6081160	09/082,651	Granted		United States of America	6/27/2000	5/20/1998		Method and Apparatus for Increasing the Bandwidth, and Reducing the Size, of the DC Feed Network for Wideband RF Amplifiers usi
5949283	09/106,167	Granted		United States of America	9/7/1999	6/29/1998		Adaptive digital predistortion linearization and feed-forward correction of RF power amplifier
6252871	09/108734	Granted		United States of America	6/26/2001	7/1/1998		Switchable Combiner/Splitter
6104348	09/120,885	Granted		United States of America	8/15/2000	7/23/1998		Antenna device with improved channel isolation
6137444	09/161,391	Granted		United States of America	10/24/2000	9/28/1998		Method of producing an antenna element assembly
6118339	09/174,641	Granted		United States of America	9/12/2000	10/19/1998		Amplification System Using Baseband Mixer
6140874	09/174,691	Granted		United States of America	10/31/2000	10/19/1998		Amplification System having Mask Detection and Bias Compensation
6493543	09/174,705	Granted		United States of America	12/10/2002	10/19/1998		Multi-Channel Amplification System Using Mask Detection
6147555	09/174,715	Granted		United States of America	11/14/2000	10/19/1998		Amplification System Having Mask Detection
6144255	09/174640	Granted		United States of America	11/7/2000	10/19/1998		Feed Forward Amplification System Having Mask Detection Compensation
6531918	09/189,642	Granted		United States of America	3/11/2003	11/10/1999		Low Cost, Pilotless, Feed Forward Compensation for a Power Amplifier
6169450	09/192,112	Granted		United States of America	1/2/2001	11/13/1998		Feed Forward Compensation Using Phase and Time Modulation
6111462	09/195,536	Granted		United States of America	8/29/2000	11/18/1998		RF power amplifier linearization using parallel RF power amplifiers having intermod-complementing predistortion paths
6054953	09/208,577	Granted		United States of America	4/25/2000	12/10/1998		Dual band antenna
6198363	09/211,260	Granted		United States of America	3/6/2001	12/14/1998		Filter and tuning element
6243038	09/213,980	Granted		United States of America	6/5/2001	12/17/1998		System and method providing amplification of narrow band signals with multi-channel amplifiers
6232851	09/247,380	Granted		United States of America	5/15/2001	2/10/1999		Coupling structure for cavity resonators
6029285	09/273,855	Granted		United States of America	2/29/2000	3/22/1999	6/2/1998	Adaptive compensation of RF amplifier distortion by injecting predistortion signal derived from respectively different function
6104241	09/356,166	Granted		United States of America	8/15/2000	7/16/1999		High efficiency feed-forward RF power amplifier with predistoration enhancement
6211733	09/425,346	Granted		United States of America	4/3/2001	10/22/1999		Improved Predistortion Compensation for a Power Amplifier
6191652	09/425424	Granted		United States of America	2/20/2001	10/22/1999		Amplifier Distortion Correction Using Cross-Modulation

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6366473	09/435,953	Granted		United States of America	4/2/2002	11/9/1999		Method for Supporting a Wall
6466113	09/489,505	Granted		United States of America	10/15/2002	1/21/2000		Multi-layer RF-printed circuit architecture with low-inductance interconnection and low thermal resistance for wide-lead power
6275106	09/511,877	Granted		United States of America	8/14/2001	2/25/2000		Spectral distortion monitor for controlling pre-distortion and feed-forward linearization of RF power amplifier
RE37,407	09/553,005	Granted		United States of America	10/16/2001	4/19/2000		Polar envelope correction mechanism for enhancing linearity of RF microwave power amplifier
6442046	09/560,799	Granted		United States of America	8/27/2002	4/28/2000		Electronic Equipment with Cavity Isolator
6473314	09/632,151	Granted		United States of America	10/29/2002	8/3/2000		RF power amplifier assembly employing multi-layer RF blocking filter
6359508	09/641,090	Granted		United States of America	3/19/2002	8/17/2000		Distortion detection apparatus for controlling predistortion, carrier cancellation and feed-forward cancellation in linear RF p
6296048	09/658,159	Granted		United States of America	10/2/2001	9/8/2000		Heat Sink Assembly
6421253	09/658,398	Granted		United States of America	7/16/2002	9/8/2000		Durable Laminated Electronics Assembly using Epoxy Preform (Paseo Nuevo Platform)
6411523	09/718,819	Granted		United States of America	6/25/2002	11/22/2000		RF Electronics Assembly with Shielded Interconnect
6614331	09/725,435	Granted		United States of America	9/2/2003	11/29/2000		Method of manufacturing inner conductor of resonator, and inner conductor of resonator
6501349	09/727,936	Granted		United States of America	12/31/2002	12/1/2000		Method and arrangement for fastening inner conductor of resonator structure
6309245	09/739,947	Granted		United States of America	10/30/2001	12/18/2000		RF Amplifier Assembly with Reliable RF Pallet Ground
6396350	09/745,718	Granted	2001-0052817	United States of America	5/28/2002	12/21/2000	12/20/2001	Power Booster Method and Apparatus For Improving The Performance of Radio Frequency Linear Power Amplifiers
6449302	09/746,167	Granted	2002-0006157	United States of America	9/10/2002	12/22/2000	1/17/2002	System and Method for Peak Power Reduction in Spread Spectrum Communications Systems
6522197	09/746,440	Granted	2002-0005755	United States of America	2/18/2003	12/21/2000	1/17/2002	Method and apparatus for optimum biasing of cascaded MOSFET radio-frequency devices
6525603	09/756,038	Granted		United States of America	2/25/2003	1/5/2001		Feedforward amplifier linearization adapting off modulation
6587014	09/769,709	Granted		United States of America	7/1/2003	1/25/2001		Switch assembly with a multi-pole switch for combining amplified RF signals to a single RF signal
6504428	09/859,720	Granted	2002-0008577	United States of America	1/7/2003	5/16/2001	1/24/2002	High linearity multicarrier RF amplifier
6621368	09/875,322	Granted	2003-0020558	United States of America	9/16/2003	6/6/2001	1/30/2003	Dynamic range extension for an electronic circuit
6650208	09/876,590	Granted	2003-0043000	United States of America	11/18/2003	6/7/2001	3/6/2003	Dual-mode resonator
6449303	09/884,302	Granted	2002-0006169	United States of America	9/10/2002	6/19/2001	1/17/2002	System and Method for Peak Power Reduction in Multiple Carried Communications Systems
6664873	09/922,542	Granted	2003-0025569	United States of America	12/16/2003	8/3/2001	2/6/2003	Tunable resonator
6390182	09/925,854	Granted	2002-0029867	United States of America	5/21/2002	8/9/2001	3/14/2002	Method for Assembling an Electronics Assembly Incorporating a Heat Sink
6384681	09/927,814	Granted		United States of America	5/7/2002	8/10/2001		Swept performance monitor for measuring and correcting RF power amplifier distortion
6407635	09/928,127	Granted		United States of America	6/18/2002	1/8/2001		Carrier-blanking mechanism for sweeping detector used to measure and correct RF power amplifier distortion
6817092	09/972,697	Granted	2002-0016096	United States of America	11/16/2004	10/4/2001	2/7/2002	Method of Assembling a Circuit Board Apparatus with Pin Connectors
6452446	10/034,016	Granted		United States of America	9/17/2002	12/20/2001		Closed loop active cancellation technique (ACT)-based RF power amplifier linearization architecture
6794954	10/045,837	Granted	2003-0132816	United States of America	9/21/2004	1/11/2002	7/17/2003	Microstrip Coupler
7231191	10/052,801	Granted	2003-0064738	United States of America	6/12/2007	10/29/2001	4/3/2003	Spurious Ratio Control Circuit for Use with Feed-Forward Linear Amplifiers
7466990	10/085,340	Granted	2002-0132644	United States of America	12/16/2008	2/27/2002	9/19/2002	Intelligent multiplexers in an antenna line management system
7170952	10/102,493	Granted	2003-0012292	United States of America	1/30/2007	3/20/2002	1/16/2003	System and Method for Post Filtering Peak Power Reduction in Communications Systems
6949992	10/103,277	Granted	2003-0179055	United States of America	9/27/2005	3/20/2002	9/25/2003	System and Method of Providing Highly Isolated Radio Frequency Interconnections
6681483	10/125,221	Granted	2002-0113673	United States of America	1/27/2004	4/18/2002	8/22/2002	Multi-layer RF-printed circuit architecture with low-inductance interconnection and low thermal resistance for wide-lead power
7095798	10/127,164	Granted	2003-0026351	United States of America	8/22/2006	4/22/2002	2/6/2003	System And Method For Post Filtering Peak Power Reduction in Multi-Carrier Communications Systems
6856215	10/151,835	Granted	2003-0042979	United States of America	2/15/2005	5/20/2002	3/6/2003	System and Method for Adjusting Group Delay
6734726	10/187,177	Granted	2003-0001669	United States of America	5/11/2004	6/27/2002	1/2/2003	BALANCED DISTORTION REDUCTION CIRCUIT
7194039	10/200,240	Granted	2002-0191709	United States of America	3/20/2007	7/22/2002	12/19/2002	Method for peak power reduction in multiple carrier communications systems
7003017	10/200,399	Granted	2002-0196839	United States of America	2/21/2006	7/22/2002	12/26/2002	Method for Peak Power Reduction In Spread Spectrum Communication Systems
6818477	10/217,726	Granted	2003-0100197	United States of America	11/16/2004	8/13/2002	5/29/2003	Method of Mounting a Component in an Edge-Plated Hole Formed in a Printed Circuit Board
7109830	10/227,687	Granted	2004-0037062	United States of America	9/19/2006	8/26/2002	2/26/2004	Highly Isolated RF Coupler
	10/355,992	Published	2004-0029617	United States of America		1/31/2003	2/12/2004	INSTALLATION SITES FOR HOUSING ELECTRONIC EQUIPMENT
6897723	10/362,755	Granted	2003-0181191	United States of America	5/24/2005	12/21/2001	9/25/2003	Feed forward amplifier loop control utilizing IF signal processing
6794933	10/365,111	Granted	2005-0151457	United States of America	9/21/2004	2/12/2003	8/14/2003	Feed Forward RF Power Amplifier with High Efficiency Main Amplifier and Highly Linear Error Amplifier
6937094	10/386,013	Granted	2004-0100323	United States of America	8/30/2005	3/11/2003	5/27/2004	Systems and Methods of Dynamic Bias Switching for Radio Frequency Power Amplifiers
6931240	10/391,168	Granted	2004-0198414	United States of America	8/16/2005	3/18/2003	10/7/2004	System and Method for Eliminating Signal Zero Crossings in Single and Multiple Channel Communications Systems
6801105	10/404,929	Granted	2003-0193378	United States of America	10/5/2004	4/1/2003	10/16/2003	Resonator of radio-frequency filter
7034620	10/410,457	Granted	2003-0227330	United States of America	4/25/2006	4/8/2003	12/11/2003	RF Amplifier Employing Bias Circuit Topologies for Minimization of RF Amplifier Memory Effects
7158386	10/431,688	Granted	2004-0222848	United States of America	1/2/2007	5/8/2003	11/11/2004	Balanced Radio Frequency Power Amplifier with Temperature Compensation
7693497	10/442,608	Granted	2003-0199257	United States of America	3/17/2010	5/21/2003	10/23/2003	Spurious Energy Correlation for Control of Linear Power Amplifiers
7096565	10/600,151	Granted	2004-0257177	United States of America	8/29/2006	6/19/2003	12/23/2004	Flanged inner conductor coaxial resonators
6819176	10/617,463	Granted		United States of America	11/16/2004	7/11/2003		High power, wide bandwidth operational amplifier
6850115	10/633,984	Granted	2004-0036532	United States of America	2/1/2005	8/4/2003	2/26/2004	Enhanced Efficiency LDMOS Based Feed Forward Amplfier
7126421	10/668,912	Granted	2005-0062532	United States of America	10/24/2006	9/23/2003	3/24/2005	Method for Aligning Feed Forward Loops
6946906	10/723,094	Granted	2005-0110567	United States of America	9/20/2005	11/25/2003	5/26/2005	System and Method of Pilot Tone Reuse in a Feedforward Amplifier
6958647	10/723,801	Granted	2005-0110563	United States of America	10/25/2005	11/25/2003	5/26/2005	Dual Loop Feedforward Power Amplifier
7173484	10/723,802	Granted	2005-0113052	United States of America	2/6/2007	11/23/2003	5/26/2005	System and Method of Carrier Reinjection in a Feedforward Amplifier
6998916	10/733,087	Granted	2004-0119535	United States of America	2/14/2006	12/11/2003	6/24/2004	Feed Forward System Penalties and Floors for Optimal Control
7002407	10/733,498	Granted	20040124920	United States of America	2/21/2006	12/11/2003	7/1/2004	Delay mismatched feed forward amplifier system using penalties and floors for control
6952147	10/738,276	Granted	2005-0001695	United States of America	10/4/2005	12/16/2003	1/6/2005	Microstrip Coupler
6985706	10/761,788	Granted	2004-0152433	United States of America	1/10/2006	1/21/2004	8/5/2004	Feed Forward Amplifier System Employing Self-Generating Alignment Lists and Adaptive Controller
7398053	10/769,764	Granted	2004-0209568	United States of America	7/8/2008	2/3/2004	10/21/2004	Method and apparatus for stability margin determination in a repeater
7038540	10/775,799	Granted	2004-0160274	United States of America	5/2/2006	2/10/2004	8/19/2004	Enhanced Efficiency Feed Forward Power Amplifier Utilizing Reduced Cancellation Bandwidth and Small Error Amplifier
7049907	10/805,634	Granted	2004-0239446	United States of America	5/23/2006	3/19/2004	12/2/2004	System and Method for Adjusting Group Delay

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6897724	10/805,666	Granted	2004-0178848	United States of America	3/24/2005	3/19/2004	9/16/2004	System and Method for Adjusting Group Delay
7110739	10/818,546	Granted	2004-0204100	United States of America	9/19/2006	4/5/2004	10/14/2004	Multi-Transmitter Communication System Employing Anti-Phase Pilot Signals
7349490	10/818,547	Granted	2004-0208259	United States of America	3/25/2008	4/5/2004	10/21/2004	Additive Digital Predistortion System Employing Parallel Path Coordinate Conversion
7038539	10/837,838	Granted	2004-0222847	United States of America	5/2/2006	5/3/2004	11/11/2004	RF Amplifier Employing Active Load Linearization
7123086	10/838,985	Granted	2004-0251961	United States of America	10/17/2006	5/5/2004	12/16/2004	Feed Forward Amplifier Employing Positive Feedback Pilot Generation
6954987	10/849,478	Granted	2004-0231884	United States of America	10/18/2005	5/19/2004	11/25/2004	Circuit Board Assembly Employing Solder Vent Hole
7513385	10/880,417	Granted	2005-0145631	United States of America	4/7/2009	6/28/2004	7/7/2005	Air lock cover vent for telecommunications equipment
8275417	10/880,423	Granted	2005-0130621	United States of America	9/25/2012	6/28/2004	6/16/2005	Flood evacuation system for subterranean telecommunications vault
7149257	10/881,476	Granted	2005-0001684	United States of America	12/12/2006	6/30/2004	1/6/2005	Digital Predistortion System and Method for Correcting Memory Effects within an RF Power Amplifier
7289773	10/889,636	Granted	2005-0009479	United States of America	10/30/2007	7/12/2004	1/13/2005	Digital Transmitter System Employing Self-Generating Predistortion Parameter Lists and Adaptive Controller
KR10-0326285	10-1997-0015229	Granted	10-1997-0072644	Korea, Republic of	2/15/2002	4/23/1997	11/7/1997	Broadband Amplifier with Quadrature Pilot
10-0282999	10-1997-0708122	Granted	10-1999-0014779	Korea, Republic of	12/4/2000	5/24/1996	2/25/1999	Movable dielectric body for controlling propagation velocity in a feed line
10-0427885	10-1998-0706972	Granted	10-1999-0087537	Korea, Republic of	4/8/2004	9/4/1998	12/27/1999	Method and device for monitoring a mobile telephone repeater
10-0313486	10-1998-0709762	Granted	10-2000-0016194	Korea, Republic of	10/22/2001	11/30/1998	3/25/2000	Repeater with variable bandwidth
KR10-0429962	10-1999-0045110	Granted	10-2000-0029151	Korea, Republic of	4/21/2004	10/18/1999	5/25/2000	Amplification System having Mask Detection and Bias Compensation
KR10-0382772	10-1999-0045114	Granted	10-2000-0029152	Korea, Republic of	4/21/2003	10/18/1999	5/25/2000	Feed Forward Amplification System Having Mask Detection Compensation
KR10-0399691	10-1999-0050258	Granted	10-2000-0035457	Korea, Republic of	9/17/2003	11/12/1999	6/26/2000	Feed Forward Compensation Using Phase and Time Modulation
10-0338230	10-1999-7002350	Granted	10-2000-0048479	Korea, Republic of	5/14/2002	3/19/1999	7/25/2000	Adaptive digital predistortion linearization and feed-forward correction of RF power amplifier
KR10-0338230	10-1999-7002350	Granted	10-2000-0048479	Korea, Republic of	5/14/2002	3/19/1999	7/25/2000	Adaptive digital predistortion linearization and feed-forward correction of RF power amplifier
KR10-0345620	10-1999-7009374	Granted	10-2001-0006290	Korea, Republic of	7/10/2002	10/12/1999	1/26/2001	Control of RF error extraction using auto-calibrating RF correlator
KR10-0371083	10-1999-7011540	Granted	10-2001-0013533	Korea, Republic of	1/22/2003	4/7/1999	2/26/2001	Adaptive Biasing in a Power Amplifier
10-0631084	10-2000-7014245	Granted	10-2001-0052897	Korea, Republic of	9/26/2006	6/18/1999	6/25/2001	Device for tuning of a dielectric resonator
1855342	10-2000-7014970	Granted	10-2001-0071681	Korea, Republic of	11/21/2005	7/1/1999	7/31/2001	Switchable Combiner/Splitter
10-0611351	10-2001-7006851	Granted	10-2001-0089532	Korea, Republic of	8/3/2006	11/24/1999	10/6/2001	Microstrip filter device
10-0800381	10-2002-7010249	Granted	10-2003-0019311	Korea, Republic of	1/28/2008	8/8/2001	3/6/2003	Power Booster Method and Apparatus For Improving The Performance of Radio Frequency Linear Power Amplifiers
	10-2002-7013951	Pending		Korea, Republic of		10/17/2002		Method and apparatus for optimum biasing of cascaded MOSFET radio-frequency devices
KR10-0466057	10-2002-7014082	Granted	10-2002-0089512	Korea, Republic of	1/4/2005	2/28/2001	11/29/2002	System and Method for Peak Power Reduction in Spread Spectrum Communications Systems
10-0491194	10-2002-7017457	Granted	10-2003-0017555	Korea, Republic of	5/16/2005	12/20/2002	3/3/2003	System and Method for Peak Power Reduction in Multiple Carried Communications Systems
2789267	10-2004-7000033	Granted	10-2004-0010834	Korea, Republic of	12/28/2006	6/18/2002	1/31/2004	System and Method for Post Filtering Peak Power Reduction in Communications Systems
10-0647031	10-2004-7001631	Granted	10-2004-0015382	Korea, Republic of	11/10/2006	2/2/2004	2/18/2004	System and Method for Post Filtering Peak Power Reduction in Communications Systems
	10-2004-7012645	Published	10-2004-0105719	Korea, Republic of		2/12/2003	12/16/2004	Feed Forward RF Power Amplifier with High Efficiency Main Amplifier and Highly Linear Error Amplifier
1827218	10-2004-7014648	Granted	10-2004-0104522	Korea, Republic of	6/7/2007	3/18/2003	12/10/2004	System and Method for Eliminating Signal Zero Crossings in Single and Multiple Channel Communications Systems
10-0847237	10-2005-7003146	Granted	10-2005-0037588	Korea, Republic of	7/18/2008	8/19/2003	4/22/2005	Enhanced Efficiency LDMOS Based Feed Forward Amplfier
	10-2005-7011458	Published	10-2005-0085809	Korea, Republic of		12/11/2003	8/29/2005	Feed Forward System Penalties and Floors for Optimal Control
	10-2005-7013576	Published	10-2005-0094876	Korea, Republic of		1/22/2004	9/28/2005	Combined Use of Self-Generating Alignment Lists and Adaptive Controllers to Align a Feed Forward System
10-0847238	10-2005-7014838	Granted	10-2005-0101210	Korea, Republic of	7/14/2008	2/11/2004	10/20/2005	Enhanced Efficiency Feed Forward Power Amplifier Utilizing Reduced Cancellation Bandwidth and Small Error Amplifier
10-0800985	10-2005-7019242	Granted	10-2005-0119204	Korea, Republic of	1/29/2008	4/7/2004	12/20/2005	Combiner Alignment by Adjusting the Digital Input of Transmitter Modules Based on Anti-Phase Pilot Signals
10-0681727	10-2005-7019650	Granted	10-2005-0122261	Korea, Republic of	2/6/2007	4/7/2004	12/28/2005	Additive Digital Predistortion System Employing Parallel Path Coordinate Conversion
10-0734767	10-2005-7022065	Granted	10-2006-0012011	Korea, Republic of	6/27/2007	5/20/2004	2/6/2006	Circuit Board Assembly Employing Solder Vent Hole
10-0837743	10-2006-7000164	Granted	10-2006-0026480	Korea, Republic of	6/5/2006	7/1/2004	3/23/2006	Digital Predistortion System and Method for Correcting Memory Effects within an RF Power Amplifier
289913	10-2006-7016753	Granted	10-2006-0109997	Korea, Republic of	12/20/2007	1/18/2005	10/23/2006	Wideband Enhanced Digital Injection Predistortion System and Method
10-864196	10-2006-7020483	Granted		Korea, Republic of	10/13/2008	9/29/2006		Digital predistortion system and method for linearizing an RF power amplifier with nonlinear gain characteristics and memory ef
10-0802353	10-2006-7020665	Granted	10-2006-0116252	Korea, Republic of	2/1/2008	2/23/2005	11/14/2006	Digital predistortion system and method for high efficiency transmitters
10-0803648	10-2006-7021125	Granted		Korea, Republic of	2/5/2008	10/11/2006		System and Method for Control of loop alignment for feed forward amplifiers
	10-2006-7021191	Pending		Korea, Republic of		10/12/2006		RF power amplifier assembly with heat pipe enhanced pallet
	10-2007-7003366	Pending		Korea, Republic of		6/14/2005		Digital Transmitter System Employing Self-Generating Predistortion Parameter Lists and Adaptive Controller
486048	10-2007-7023628	Granted	10-2007-0106649	Korea, Republic of	8/25/2008	10/15/2007	11/2/2007	Combined Use of Self-Generating Alignment Lists and Adaptive Controllers to Align a Feed Forward System
227544	1030/DEL/1996	Granted		India	12/13/2009	5/16/1996		Movable dielectric body for controlling propagation velocity in a feed line
7366252	11/036,805	Granted	2005-0157814	United States of America	4/29/2008	1/14/2005	7/21/2005	Wideband Enhanced Digital Injection Predistortion For High Efficiency Transmitters
7336725	11/063,297	Granted	2005-0195919	United States of America	2/26/2008	2/22/2005	9/8/2005	Digital Predistortion System and Method for High Efficiency Transmitters
7577211	11/063,447	Granted	2005-0190857	United States of America	8/18/2009	2/23/2005	9/1/2005	Digital Predistortion System and Method for Linearizing an RF Power Amplifier with Nonlinear Gain Characteristics and Memory Ef
7342788	11/071,931	Granted	2005-0201061	United States of America	3/11/2008	3/4/2005	9/15/2005	RF Power Amplifier Assembly with Heat Pipe Enchanced Pallet
7339426	11/081,384	Granted	2005-0242875	United States of America	3/4/2008	3/16/2005	11/3/2005	High Efficiency Linear Amplifier Employing Dynamically Controlled Back Off
7440733	11/087,225	Granted	2005-0227644	United States of America	10/21/2008	3/23/2005	10/13/2005	Constant Gain Nonlinear Envelope Tracking High Efficiency Linear Amplifier
7197087	11/175,508	Granted	2006-0008030	United States of America	3/27/2007	7/6/2005	1/12/2006	System and Method for Differential IQ Delay Compensation in a Communications System Utilizing Adaptive AQM Compensation
7239671	11/175,509	Granted	2006-0008026	United States of America	7/3/2007	7/6/2005	1/12/2006	System and Method for Digital Timing Error Correction in a Communications System Utilizing Adaptive Predistortion
7590190	11/214,191	Granted	2006-0098758	United States of America	9/15/2009	8/29/2005	5/11/2006	System and Method for Forward Path Gain Control in a Digital Predistortion Linearized Transmitter
7400214	11/214,230	Granted	2006-0044075	United States of America	7/15/2008	8/29/2005	3/2/2006	Low Loss, High Power Air Dielectric Stripline Edge Coupling Structure
7126418	11/288,580	Granted	2006-0077006	United States of America	10/24/2006	11/29/2005	4/13/2006	Delay Mismatched Feed Forward Amplifier System Using Penalties and Floors for Optimal Control
7106134	11/295,926	Granted	2006-0087374	United States of America	9/12/2006	12/6/2005	4/27/2006	Feed Forward Amplifier Employing Bias Circuit Topologies for Minimization of RF Amplifier Memory Effects
7283022	11/349,463	Granted	2006-0176129	United States of America	10/16/2007	2/7/2006	8/10/2006	Dual Mode Ceramic Filter
7187232	11/369,529	Granted	2006-0176113	United States of America	3/6/2007	3/7/2006	8/10/2006	Feed Forward Amplifier Employing Positive Feedback Pilot Generation with automatic level control
7301397	11/372,513	Granted	2007-0018723	United States of America	11/27/2007	3/10/2006	1/25/2007	Enhanced Efficiency Feed Forward Power Amplifier with Delay Mismatched Error Cancellation Loop

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7288987	11/372,595	Granted	2006-0238245	United States of America	10/30/2007	3/10/2006	10/26/2006	RF amplifier employing active load linearization
7193462	11/377,023	Granted	2006-0217083	United States of America	3/20/2007	3/16/2006	9/28/2006	RF Power Amplifier System Employing An Analog Predistortion Module Using Zero Crossings
7756493	11/392,170	Granted	2006-0222104	United States of America	7/13/2010	3/29/2006	10/5/2006	System and Method for Using the Pilot Frequency from a Positive Feedback Pilot Generation and Detection Circuit to Improve Seco
7288988	11/401,530	Granted	2006-0232332	United States of America	10/30/2007	4/11/2006	10/19/2006	Adaptive Predistortion Linearized Amplifier System Employing Selective Sampling
7644486	11/487,092	Granted	2006-0254045	United States of America	1/12/2010	7/13/2006	11/16/2006	Flanged inner conductor coaxial resonators
7769103	11/520,216	Granted	2007-0063772	United States of America	8/3/2010	9/13/2006	3/22/2007	Amplifier System Employing Analog Polynomial Predistortion with Sub-Nyquist Digital Predistortion
7864874	11/521,028	Granted	2007-0058743	United States of America	1/4/2011	9/14/2006	3/15/2007	OFDM Communications Systems Employing Crest Factor Reduction with ISI Control
7742535	11/642,281	Granted	2007-0140367	United States of America	6/22/2010	12/19/2006	6/21/2007	Crest Factor Reduction (CFR) for OFDM Using Selective Sub-Carrier Degradation
	11/658,692	Published	2009-0066602	United States of America		11/17/2008	3/12/2009	REFLECTOR, AN ANTENNA USING A REFLECTOR AND A MANUFACTURING METHOD FOR A REFLECTOR
7734266	11/707,475	Granted	2007-0197179	United States of America	6/8/2010	2/15/2006	8/23/2007	Optimally adaptive receiver
7864130	11/713,351	Granted	2007-0205952	United States of America	1/4/2011	3/1/2007	9/6/2007	Broadband single vertical polarized base station antenna
7629939	11/729,647	Granted	2007-0229385	United States of America	12/8/2009	3/29/2007	10/4/2007	Broadband Dual Polarized Base Station Antenna
7715785	11/788,181	Granted	2007-0249283	United States of America	5/11/2010	4/19/2007	10/25/2007	System and Method for Estimation and Compensation of Radiated Feedback Coupling in a High Gain Repeater
7995976	11/820,203	Granted	2008-0019532	United States of America	8/9/2011	6/18/2007	1/24/2008	Using the pilot frequency from a positive feedback system to improve second loop convergence for a feedforward amplifier
7898489	11/920,885	Granted	2009-0278761	United States of America	3/1/2011	5/31/2006	11/12/2009	Phase Shifter
8150309	11/940,098	Granted	2008-0113617	United States of America	4/3/2012	11/14/2007	5/15/2008	Stability recovery for an on-frequency RF repeater with adaptive echo cancellation
7808443	11/989,080	Granted	2009-0135078	United States of America	10/5/2010	7/21/2006	5/28/2009	INTERLEAVED MULTIPLE BAND ANTENNA
JP 3958375	11-509724	Granted	2001-502877	Japan	5/18/2007	3/23/1999	2/27/2001	Antenna device with improved channel isolation
7710344	12/074,473	Granted	2008-0218425	United States of America	5/4/2010	3/4/2008	9/11/2008	Single Pole Vertically Polarized Variable Azimuth Beam Width Antenna for Wireless Network
7990329	12/074,980	Granted	2009-0015498	United States of America	8/2/2011	3/7/2008	1/15/2009	Dual staggered vertically polarized variable azimuth beam width antenna for wireless network
8330668	12/080,483	Granted	2008-0246681	United States of America	12/11/2012	4/3/2008	10/9/2008	Dual Stagger Offset-able Azimuth Beam Width Controlled Antenna for Wireless Network
8289224	12/085,334	Granted	2010-0033399	United States of America	10/16/2012	11/16/2006	2/11/2010	Smart Pole
7830327	12/152,726	Granted	2008-0284661	United States of America	11/9/2010	5/20/2008	11/20/2008	Novel Design of a Low Cost Antenna for Wireless Communications
7990325	12/152,728	Granted	2008-0284669	United States of America	8/2/2011	5/16/2008	11/20/2008	Remote Antenna Positioning Data Acquisition
8073387	12/154,179	Granted	2008-0293360	United States of America	12/6/2011	5/20/2008	11/27/2008	ON FREQUENCY REPEATER WITH AGC STABILITY DETERMIANTION
	12/157,646	Published	2008-0309568	United States of America		6/11/2008	2/20/2009	Triple Stagger Offsettable Azimuth Beam Width Controlled Antenna for Wireless Network
	12/175,425	Published	2009-0021437	United States of America		7/17/2008	1/22/2009	Center panel movable 3-Column Array Antenna for Wireless Network
8130164	12/212,533	Granted	2009-0079653	United States of America	3/6/2012	9/17/2008	3/26/2009	Broadband coplanar antenna element
7999745	12/221,634	Granted	2009-0046017	United States of America	8/16/2011	8/5/2008	2/19/2009	Dual polarization antenna element with dielectric bandwidth compensation and improved cross-coupling
8237619	12/252,324	Granted	2009-0096702	United States of America	8/6/2012	10/15/2008	4/16/2009	Dual Beam Sector Array using 3-column non-planar array with a simple 3-to-2 BFN
	12/266,517	Pending		United States of America		11/6/2008		Variable Stagger Reflector for Azimuth Beam Width Controlled Antenna
	12/284,123	Published	2009-0074109	United States of America		9/18/2008	3/19/2009	High Power, High Linearity, Digital Phase Shifter
8199064	12/287,661	Granted	2009-0096698	United States of America	6/12/2012	10/10/2008	4/16/2009	Omni Directional Broadband coplanar antenna element
8085211	12/323,401	Granted	2009-0135074	United States of America	12/27/2011	11/25/2008	5/28/2009	Single Drive Variable Azimuth and Beam Tilt Antenna for Wireless Network
	12/323,438	Published	2009-0135076	United States of America		11/25/2008	5/28/2009	Linear Array with Azimuth Beam Augmentation by Axial Rotation
	12/340,383	Published	2009-0180426	United States of America		12/19/2008	7/16/2009	Digital Distributed Antenna Systems
8165100	12/340,401	Granted	2009-0180407	United States of America	4/24/2012	12/19/2008	7/16/2009	TDD Digital Distributed Antenna Systems
	12/359,938	Published	2009-0189821	United States of America		1/26/2009	7/30/2009	Tri-Column Adjustable Azimuth Beam Width Antenna for Wireless Network.
	12/361,307	Published	2009-0195467	United States of America		1/28/2009	8/6/2009	Compound two-way antenna with installation compensator
8116254	12/363,591	Granted	2009-0196215	United States of America	2/14/2012	1/30/2009	8/6/2009	Wireless Repeater with Smart Uplink
7986280	12/365,767	Granted	2009-0195471	United States of America	7/26/2011	2/4/2009	6/8/2009	Multi Element Broadband Omni-Directional Antenna Array
8120536	12/422,165	Granted	2009-0256773	United States of America	2/21/2012	4/10/2009	10/15/2009	Improved Antenna Isolation I
	12/438,724	Published	2010-0290169	United States of America		8/27/2007	11/18/2010	Active Lighting Protection
8073385	12/468,710	Granted	2009-0291632	United States of America	12/6/2011	5/19/2009	11/26/2009	Adaptive Echo Cancellation for an On-Frequency RF Repeater with Digital Sub-band Filtering
8334810	12/490,212	Granted	2009-0322642	United States of America	12/18/2012	6/23/2009	12/31/2009	Resonant Cap Loaded High Gain Patch Antenna
	12/577,009	Published	2010-0098139	United States of America		10/9/2009	4/22/2010	Crest Factor Reduction (CFR) For Downlink LTE by Transmitting Phase Shifted Resource Blocks
	12/579,211	Published		United States of America		10/14/2009	5/6/2010	Low Power Multi-Beam Active Array for Cellular Communications
8228136	12/660,629	Granted	2010-0225415	United States of America	7/24/2012	3/2/2010	9/9/2010	Micro P-Coupler
	12/754,453	Published	2010-0283707	United States of America		4/5/2010	11/11/2010	Dual-Polarized Dual-Band Broad-beamwidth Directive Patch Antenna
	12/795,577	Published	2010-0311353	United States of America		6/7/2010	12/9/2010	Multi element amplitude and phase compensated antenna array with adaptive pre-distortion for Wireless Network
	12/888,295	Published	2011-0070824	United States of America		9/22/2010	3/24/2011	Co-Location of a Pico eNB and Macro Up-link Repeater
	12/950,770	Allowed	2011-0121897	United States of America		11/19/2010	5/26/2011	Measurement and Correction of Residual Nonlinearities in a Digitally Predistorted Power Amplifier
	13/047,590	Published	2011-0226505	United States of America		3/14/2011	9/22/2011	Walk-In MicroFlex outdoor enclosure
	13/077,556	Allowed	2011-0244853	United States of America		3/31/2011	10/6/2011	System and Method for performance enhancement in heterogeneous wireless access network
	13/078,585	Published	2011-0244892	United States of America		4/1/2011	10/6/2011	PICO Base Station Applications for use on Mobile Devices
	13/078,736	Published	2011-0241801	United States of America		4/1/2011	10/6/2011	Reduced Size Cavity Filters for Pico Base Stations
	13/079,558	Published	2011-0244914	United States of America		4/4/2011	10/6/2011	System and Method for performance enhancement in heterogeneous wireless access network employing distributed antenna system
	13/214,573	Published	2012-0052892	United States of America		8/22/2011	3/1/2012	Transmit Leakage Cancellation in a Wide Bandwidth Distribution Antenna System DAS
	13/324,599	Published	2012-0159279	United States of America		12/13/2011	6/21/2012	Improving Data Throughput for Cell-Edge Users in a LTE Network Using Up-link HARQ Relays
	13/324,599	Published	2012-0159279	United States of America		12/13/2011	6/21/2012	"DATA THROUGHPUT FOR CELL-EDGE USERS IN A LTE NETWORK USING DOWN-LINK REPEATERS AND UP-LINK HARQ RELAYS"
	13/368,125	Published	2012-0200355	United States of America		2/7/2012	8/9/2012	DIGITAL PREDISTORTION OF A POWER AMPLIFIER FOR SIGNALS COMPRISING WIDELY SPACED CARRIERS
	13/413,468	Pending		United States of America		3/6/2012		Two-stage Doherty
	13/426,257	Pending		United States of America		3/21/2012		Lightweight Cavity Filter Structure

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	13/439,658	Published	2012-0196611	United States of America		4/4/2012	8/2/2012	System and Method for performance enhancement in heterogeneous wireless access network employing distributed antenna system
	13/454,951	Published	2012-0280881	United States of America		4/24/2012	11/8/2012	Reflector and a multiband antenna
	13/454,984	Published	2012-0280880	United States of America		4/24/2012	11/8/2012	Antenna Array Arrangement and multi band antenna
	13/468,976	Published	US-2012-0286866-A1	United States of America		5/10/2012	11/15/2012	AMPLIFIER PERFORMANCE STABILIZATION THROUGH PREPARATORY PHASE
	13/470,064	Published	2012-0218168	United States of America		10/12/2007	8/30/2012	Omni Directional Broadband coplanar antenna element
	13/494,662	Pending		United States of America		7/12/2012		45 Deg Dual Broad Band Base Station Antenna
	13/523,623	Pending		United States of America		6/14/2012		Tunable inductive coupling between resonators
	13/533,756	Pending		United States of America		6/26/2012		Dual Beam Sector Array using 3-column non-planar array with a simple 3-to-2 BFN
	13/545,353	Pending		United States of America		7/10/2012		Modular frequency based Fiber Transport (FT) and Radio Transport (RT) repeater platform for diverse radio frequency (RF) config
	13/549,183	Pending		United States of America		7/13/2012		Combination of radio frequency (RF), high speed digital (communication), and direct current (DC Power) signals in a single prot
	13/556,126	Pending		United States of America		7/23/2012		Inter Cell Interference Coordination in Wireless Networks
	13/556,131	Pending		United States of America		7/23/2012		High Speed Handovers in a Wireless Network
	13/602,931	Pending		United States of America		9/4/2012		Open Circuit Common Junction Feed for Duplexer
	13/603,327	Pending		United States of America		9/4/2012		SMALL CELLS IMPLEMENTING MULTIPLE AIR INTERFACES
	13/603,330	Pending		United States of America		9/4/2012		SMALL CELLS IMPLEMENTING MULTIPLE AIR INTERFACES
	13/603,332	Pending		United States of America		9/4/2012		SMALL CELLS IMPLEMENTING MULTIPLE AIR INTERFACES
	13/603,338	Pending		United States of America		9/4/2012		SMALL CELLS IMPLEMENTING MULTIPLE AIR INTERFACES
	13/603,345	Pending		United States of America		9/4/2012		SMALL CELLS IMPLEMENTING MULTIPLE AIR INTERFACES
	13/603,349	Pending		United States of America		9/4/2012		SMALL CELLS IMPLEMENTING MULTIPLE AIR INTERFACES
	13/603,358	Pending		United States of America		9/4/2012		LOCATION PROCESSING IN SMALL CELLS IMPLEMENTING MULTIPLE AIR INTERFACES
	13/604,416	Pending		United States of America		9/5/2012		MULTIBAND ACTIVE-PASSIVE BASE STATION ANTENNA
	13/618,607	Pending		United States of America		9/14/2012		Filter DPD system and method
	13/626,700	Pending		United States of America		9/25/2012		Lightweight Cavity Filter Structure
	13/675,906	Pending		United States of America		11/13/2012		Single-Multi-Purpose Actuator for antenna systems
	1323/KOLNP/2007	Pending		India		11/25/2005		Antenna control system
	1324/KOLNP/2007	Pending		India		11/25/2005		Antenna control system
	162/CHENP/2012	Pending		India		6/7/2010		Multi element amplitude and phase compensated antenna array with adaptive pre-distortion for Wireless Network
	1650/KOLNP/2008	Pending		India		11/16/2006		Smart Pole
	1735/CHENP/2008	Pending		India		4/7/2008		Distributed Antenna System Using Signal Precursors
	1914/KOLNP/2007	Pending		India		11/15/2005		DUAL BAND ANTENNA
711591	19492/97	Granted	AU711591B	Australia	1/27/2000	8/14/1998	10/14/1999	Method and device for monitoring a mobile telephone repeater
116494B	1999/2240	Granted	FI992240	Finland	11/30/2005	10/18/1999	4/19/2000	Amplification System Having Mask Detection
116495B	1999/2242	Granted	FI992242	Finland	11/30/2005	10/18/1999	4/19/2000	Feed Forward Amplification System Having Mask Detection Compensation
116923	1999/2243	Granted		Finland	3/31/2006	10/18/1999		Multi-Channel Amplification System Using Mask Detection
116924	1999/2244	Granted	FI992244	Finland	3/31/2006	10/18/1999	4/19/2000	Amplification System having Mask Detection and Bias Compensation
	20011096108T	Pending		Germany		4/6/2001		Method and apparatus for optimum biasing of cascaded MOSFET radio-frequency devices
4707915	2001-552518	Granted		Japan	3/25/2011	1/8/2001		Carrier-blanking mechanism for sweeping detector used to measure and correct RF power amplifier distortion
	2002-562824	Pending		Japan		8/26/2002		Spectral distortion monitor for controlling pre-distortion and feed-forward linearization of RF power amplifier
	2004-80013988.X	Allowed	1792125	China (Peoples Republic)		5/20/2004	6/21/2006	Circuit Board Assembly Employing Solder Vent Hole
	2004800018834.X	Published	1833418	China (Peoples Republic)		7/1/2004	9/13/2006	Digital Predistortion System and Method for Correcting Memory Effects within an RF Power Amplifier
L200580041058.X	200580041058.X	Granted	CN101069324	China (Peoples Republic)	6/8/2011	11/15/2005	11/7/2007	DUAL BAND ANTENNA
	2006-7022846	Pending		Korea, Republic of		5/3/2005		Aperture antenna element
	2012-515024	Pending		Japan		12/7/2011		Multi element amplitude and phase compensated antenna array with adaptive pre-distortion for Wireless Network
252300	2495/CHENP/2007	Granted		India	5/8/2012	6/11/2007		System and Method for Forward Path Gain Control in a Digital Predistortion Linearized Transmitter
	2657/KOLNP/2006	Pending		India		5/3/2005		Aperture antenna element
222831	278DEL1998	Granted		India	8/26/2008	2/3/1998		Antenna operating with two isolated channels
D655,280	29/355,373	Granted		United States of America	3/6/2012	2/5/2010		Base Station Design Language
	29/359,261	Pending		United States of America		4/7/2010		PICO Base Station Applications for use on Mobile Devices
	29/398,135	Pending		United States of America		7/26/2011		RF UNIT ENCLOSURE
	29/398,136	Pending		United States of America		7/26/2011		QUAD BAND UNIT ENCLOSURE
D563,293	29/411,061	Granted		United States of America	7/10/2012	1/16/2012		Base Station Enclosure
720608	29191/97	Granted	AU720608B	Australia	9/21/2000	11/19/1998	6/8/2000	Flat antenna
722385	31116/97	Granted	AU722385	Australia	11/16/2000	12/30/1998	8/3/2000	Repeater with variable bandwidth
	3646/CHENP/2006	Pending		India		2/24/2005		Digital predistortion system and method for linearizing an RF power amplifier with nonlinear gain characteristics and memory ef
	3659/CHENP/2006	Pending		India		2/23/2005		Digital predistortion system and method for high efficiency transmitters
241669	3762/CHENP/2006	Granted		India	7/19/2010	10/11/2006		RF power amplifier assembly with heat pipe enhanced pallet
	3763/CHENP/2006	Pending		India		10/11/2006		System and method for Control of loop alignment for feed forward amplifiers
	4388/KOLNP/2007	Pending		India		5/31/2006		Improved AEDT
	4393/KOLNP/2007	Pending		India		5/31/2006		Phase Shifter
	4730/CHENP/2007	Pending		India		3/20/2006		RF Power Amplifier System Employing An Analog Predistortion Module Using Zero Crossings
	4971/CHENP/2007	Pending		India		4/3/2006		System and Method for Using the Pilot Frequency from a Positive Feedback Pilot Generation and Detection Circuit to Improve Seco
	5001/KOLNP/2007	Pending		India		7/21/2006		INTERLEAVED MULTIPLE BAND ANTENNA
3342018	506953/98	Granted		Japan	8/23/2002	7/10/1997		RF amplifier having adaptive predistortion circuit

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Patent #	Application #	Status	Public #(US PTO)	Country / Region	Issue Date	Filing Date	Publication Date	Title of the Patent
253125	5129/CHENP/2007	Granted		India	6/27/2012	4/12/2006		Adaptive Predistortion Linearized Amplifier System Employing Selective Sampling
3343260	527768/97	Granted		Japan	8/23/2002	1/30/1997		Polar envelope correction mechanism for enhancing linearity of RF/Microwave power amplifier
3342022	542545/99	Granted		Japan	8/23/2002	1/28/1999		Control of RF error extraction using auto-calibrating RF-correlator
245826	553/CHENP/2007	Granted		India	2/3/2011	7/8/2005		System and Method for Digital Timing Error Correction in a Communications Systems Utilizing Adaptive Predistortion
3393650	555283/97	Granted		Japan	1/31/2003	3/14/1997		Adaptive compensation of RF amplifier distortion by injecting predistortion signal derived from respectively different function
245925	562/CHENP/2007	Granted		India	2/7/2011	7/7/2005		System and Method for Differential IQ Delay Compensation in a Communications System Utilizing Adaptive AGM Compensation
707610	57853/96	Granted	AU707610B	Australia	10/28/1999	5/14/1996	7/15/1999	An antenna device with two radiating elements having an adjustable phase difference between the radiating elements
	5874/CHENP/2008	Pending		India		3/29/2007		Broadband Dual Polarized Base Station Antenna
	61/576,307	Pending		United States of America		12/15/2011		Multiband 40 deg Split Beam Antenna for Wirless Network
	61/576,815	Pending		United States of America		12/16/2011		Uni-Platform Relay
	61/577,455	Pending		United States of America		12/19/2011		Broad Band Diplexer Using Suspended Strip-Line Capacitor Technology
	61/586,641	Pending		United States of America		1/13/2012		Efficiency Enhanced feedforward Power Amplifier
	61/620,851	Pending		United States of America		4/5/2012		System and Method for OFDMA and SC-FDMA UL Timing Synchronization
	61/620,885	Pending		United States of America		4/5/2012		Implementation of a Digital Predistorter with Estimator for a Transmitter having a Nonlinear RF Power Amplifier
	61/644,336	Pending		United States of America		5/8/2012		A Combined Approach to Digital Predistortion and Crest Factor Reduction for the Linearization of a RF Power Amplifier
	61/644,348	Pending		United States of America		5/8/2012		Wide Dynamic Range Power Amplifier Protection System
	61/644,971	Pending		United States of America		5/9/2012		Telescoping mast system and method
	61/649,152	Pending		United States of America		5/18/2012		Intelligent Handover
	61/655,884	Pending		United States of America		6/5/2012		ENABLING eCSFB in HETNETs
	61/663,941	Pending		United States of America		6/25/2012		Arrangement and method for coupling between adjustable resonators
	61/673,004	Pending		United States of America		7/18/2012		BROADBAND AIRCRAFT WINGTIP ANTENNA SYSTEM
	61/707,687	Pending		United States of America		9/28/2012		Multi Resonator Non-Adjacent Coupling
	61/707,778	Pending		United States of America		9/28/2012		HYDRAULIC TELESCOPIC ANTENNA MAST SYSTEM AND METHOD FOR OPERATING THE SAME
	61/714,055	Pending		United States of America		10/15/2012		ANTENNA ELEMENT AND DEVICES THEREOF
	61/720,184	Pending		United States of America		10/30/2012		DUAL POLARIZED DIPOLE ANTENNA
	61/732,185	Pending		United States of America		11/30/2012		BUILT-IN PASSIVE INTERMODULATION TESTER FOR BASE STATION EQUIPMENT
69925887T	69925887.1-08	Granted	EP0988694	Germany	4/20/2006	4/7/1999	7/28/2005	Dynamic Predistortion Compensation for a Power Amplifier
	7598/DELNP/2006	Published	7598/DELNP/2006	India		7/25/2005	6/22/2007	Reflector assembly
253649	804/KOLNP/2007	Granted		India	8/8/2012	10/14/2005		DC Extract filter device
742330	80433/98	Granted	AU742330B	Australia	4/4/2002	12/2/1999	12/20/2001	Microwave resonator with dielectric tuning body resiliently secured to a movable rod by spring means
465054	8804374-0	Granted	SE8804374	Sweden	11/7/1991	12/2/1988	7/15/1991	Method and a device pertaining to an electro-mechanically controlled resonance module
470325	8903298-1	Granted	SE470325	Sweden	1/17/1994	10/6/1989	4/7/1991	Method and a device pertaining to an electro-mechanically controlled resonance module
	893/KOLNP/2007	Pending		India		10/14/2005		A DC-extracting arrangement
503922	9403985-6	Granted	SE9403985	Sweden	9/30/1996	11/17/1994	9/30/1996	Measuring line for a coaxial conductor for determining energy throughflow and standing wave ratios
504563	9501955-0	Granted	SE9501955	Sweden	3/3/1997	5/24/1995	11/25/1996	Movable dielectric body for controlling propagation velocity in a feed line
	95-0478	Pending		Sweden		3/7/1995		Antenna Device
506106	9600604-4	Granted	SE9600604	Sweden	11/10/1997	2/19/1996	8/20/1997	Amplifier for antenna and using integrated dual duplex filters
511385	9600842-0	Granted	SE9600842	Sweden	9/20/1999	3/4/1996	9/3/1997	Method and device for monitoring a mobile telephone repeater
506571	9601774-4	Granted	SE9601774	Sweden	1/12/1998	5/9/1996	11/10/1997	Channel selective repeater
506868	9602080-5	Granted	SE9602080	Sweden	2/23/1998	5/29/1996	11/30/1997	Elongated antenna
510569	9602161-3	Granted	SE9602161	Sweden	6/7/1999	5/31/1996	12/1/1997	Repeater with variable bandwidth
507698	9602740-4	Granted	SE9602740	Sweden	7/6/1998	7/10/1996	1/11/1998	Method and system for tuning resonance modules
509749	9703963-0	Granted	SE9703963	Sweden	3/1/1999	10/29/1997	11/14/1997	Flat antenna
513164	9800663-8	Granted	SE9800663	Sweden	7/17/2000	3/3/1998	9/4/1999	Mounting bracket
520621	9800683-6	Granted	SE9800683	Sweden	8/5/2003	3/4/1998	9/5/1999	SYSTEM AND A METHOD FOR TRANSFER OF A DIGITAL INFORMATION CARRYING SIGNAL
512078	9801727-0	Granted	SE9801727	Sweden	1/24/2000	5/15/1998	11/16/1999	Angular measurement
512513	9802191-8	Granted	SE9802191	Sweden	3/27/2000	6/18/1998	12/19/1999	Device for tuning of a dielectric resonator
512439	9802301-3	Granted	SE9802301	Sweden	3/20/2000	6/26/1998	12/27/1999	Dual band antenna
512320	9802530-7	Granted	SE9802530	Sweden	2/28/2000	1/30/1998	7/13/1998	Antenna operating with two isolated channels
513349	9802714-7	Granted	SE9802714	Sweden	8/28/2000	8/12/1998	2/13/2000	Coaxial cavity resonator
513359	9804153-6	Granted	SE9804153	Sweden	9/4/2000	12/1/1998	6/2/2000	Microstrip filter device
	98-1464	Pending		Sweden		7/22/1998		Enclosure for active ellectronics circuits
	98-1464	Pending		Sweden		7/22/1998		Enclosure for active electronic circuits with an outer cover
351930	98-705845	Granted		Korea, Republic of	8/26/2002	1/29/1998		Polar envelope correction mechanism for enhancing linearity of RF/Microwave power amplifier
	98-709167	Pending		Korea, Republic of		11/13/1998		Flat antenna
ZL98812131.X	98812131.X	Granted	1281590	China (Peoples Republic)	4/28/2004	7/12/1998	1/24/2001	Dual band antenna
309808	99-7000442	Granted		Korea, Republic of	9/11/2001	7/10/1997		RF amplifier having adaptive predistortion circuit
	AU199600647 44D	Published	AU6474496	Australia		7/12/1996	2/18/1997	Antenna amplifier
GB2429011	GB0516421.5	Granted		United Kingdom		8/10/2005		Microwave dielectric ceramic
	GB0700265.2	Pending		United Kingdom		1/8/2007		MICROWAVE DIELECTRIC CERAMIC
GB2394366	GB20040000190	Granted	WO03001683	United Kingdom	3/2/2005	6/6/2002	1/3/2003	Dual-mode resonator
	GR20050100576	Pending		Greece		11/22/2005		Smart Pole
	JP199805146 63T	Published	JP2001508954T	Japan		8/7/1997	7/3/2001	Adaptive digital predistortion linearization and feed-forward correction of RF-power amplifier
	MX/a/2011/0143156	Pending		Mexico		7/6/2010		Multi element amplitude and phase compensated antenna array with adaptive pre-distortion for Wireless Network

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222983	MX2000PA13012	Granted	MXPA00013012	Mexico	9/24/2004	7/1/1999	7/14/2003	Switchable Combiner/Splitter
ID0005890	P-961964	Granted		Indonesia	1/24/2001	7/9/1997		Movable dielectric body for controlling propagation velocity in a feed line
ID0006011	P-980066	Granted		Indonesia	2/27/2001	1/20/1998		Antenna element
	PCT/DK2004/000296	Published	WO2004097979	Patent Cooperation Treaty		4/30/2004	11/11/2004	Microwave transmission unit including lightning protection
	PCT/EP98/05410	Published	WO99/17394	Patent Cooperation Treaty		8/26/1998	4/8/1999	Multi surface coupled coaxial resonator
	PCT/GB2008/000023	Published	WO2008/084199	Patent Cooperation Treaty		1/7/2008	7/17/2008	MICROWAVE DIELECTRIC CERAMIC
	PCT/IB2006/003235	Published	WO2007/060513	Patent Cooperation Treaty		11/16/2006	5/31/2007	Smart Pole
	PCT/SE00/00481	Published	WO0055939	Patent Cooperation Treaty		3/10/2000	9/21/2000	Dual band antenna arrangement
	PCT/SE00/00999	Published	WO0077941	Patent Cooperation Treaty		5/18/2000	12/21/2000	Method and apparatus for stability margin determination in a repeater
	PCT/SE00/01621	Published	WO0117058	Patent Cooperation Treaty		8/23/2000	3/8/2001	Four port hybrid
	PCT/SE01/01768	Published	WO0215439	Patent Cooperation Treaty		8/17/2001	2/21/2002	Communication system with fiber optical link
	PCT/SE01/01951	Published	WO0235651	Patent Cooperation Treaty		9/12/2001	5/2/2002	Beam adjusting device
	PCT/SE01/01952	Published	WO0235902	Patent Cooperation Treaty		9/12/2001	5/2/2002	Shielded housing
	PCT/SE01/02357	Published	WO0243183	Patent Cooperation Treaty		10/26/2001	5/30/2002	Microwave antenna with patch mounting device
	PCT/SE01/02490	Published	WO0252722	Patent Cooperation Treaty		11/9/2001	7/4/2002	Microwave amplifier with bypass segment
	PCT/SE01/02888	Published	WO02052673	Patent Cooperation Treaty		12/21/2001	7/4/2002	Method for tuning a radio filter and a system for tuning a radio filter
	PCT/SE02/00244	Published	WO02084808	Patent Cooperation Treaty		2/13/2002	10/24/2002	CIRCUIT BOARD CONNECTOR
	PCT/SE05/000643	Published	WO2005107008	Patent Cooperation Treaty		5/3/2005	11/10/2005	Aperture antenna element
	PCT/SE05/001776	Published	WO2006057612	Patent Cooperation Treaty		11/25/2005	6/1/2006	Antenna control system
	PCT/SE2005/001538	Published	WO2006043880	Patent Cooperation Treaty		10/14/2005	4/27/2006	A DC-extracting arrangement
	PCT/SE2005/01178	Published	WO2006011844	Patent Cooperation Treaty		7/25/2005	2/2/2006	Reflector assembly
	PCT/SE2005/01535	Published	WO2006059937	Patent Cooperation Treaty		11/15/2005	6/8/2006	DUAL BAND ANTENNA
	PCT/SE2005/01537	Published	WO2006043879	Patent Cooperation Treaty		10/14/2005	4/27/2006	DC Extract filter device
	PCT/SE2005/01777	Published	WO2006057613	Patent Cooperation Treaty		11/25/2005	6/1/2006	Antenna control system
	PCT/SE2006/000640	Pending		Patent Cooperation Treaty		5/31/2006		Phase Shifter
	PCT/SE2006/000641	Pending		Patent Cooperation Treaty		5/31/2006		Improved AEDT
	PCT/SE2006/000904	Published	WO2007/011295	Patent Cooperation Treaty		7/21/2006	1/25/2007	INTERLEAVED MULTIPLE BAND ANTENNA
	PCT/SE2007/000739	Pending		Patent Cooperation Treaty		8/27/2007		Active Lighting Protection
	PCT/SE2007/00759	Pending		Patent Cooperation Treaty		8/31/2007		Filter with external Coupling pin
	PCT/SE2009/000009	Published	WO2009108097	Patent Cooperation Treaty		1/14/2009	9/3/2009	Improved Antenna Isolation II
	PCT/SE89/00705	Published	WO90/06627	Patent Cooperation Treaty		11/30/1989	6/14/1990	Method and a device pertaining to an electro-mechanically controlled resonance module
	PCT/SE95/01359	Published	WO9616337	Patent Cooperation Treaty		11/15/1995	5/30/1996	Measuring line for a coaxial conductor for determining energy throughflow and standing wave ratios
	PCT/SE96/00627	Published	WO9637009	Patent Cooperation Treaty		5/14/1996	11/21/1996	An antenna device with two radiating elements having an adjustable phase difference between the radiating elements
	PCT/SE96/00678	Published	WO9637922	Patent Cooperation Treaty		5/24/1996	11/28/1996	Movable dielectric body for controlling propagation velocity in a feed line
	PCT/SE96/00951	Published	WO9704534	Patent Cooperation Treaty		7/12/1996	2/6/1997	Antenna amplifier
	PCT/SE97/00277	Published	WO9733381	Patent Cooperation Treaty		2/19/1997	9/12/1997	Method and device for monitoring a mobile telephone repeater
	PCT/SE97/00776	Published	WO9743799	Patent Cooperation Treaty		5/12/1997	11/20/1997	Flat antenna
	PCT/SE97/00916	Published	WO9745969	Patent Cooperation Treaty		5/28/1997	12/4/1997	Repeater with variable bandwidth
	PCT/SE98/00071	Published	WO9833234	Patent Cooperation Treaty		1/16/1998	7/30/1998	Antenna element
	PCT/SE98/00143	Published	WO9834295	Patent Cooperation Treaty		1/30/1998	8/6/1998	Antenna operating with two isolated channels
	PCT/SE98/01353	Published	WO9905754	Patent Cooperation Treaty		7/8/1998	2/4/1999	Antenna device with improved channel isolation
	PCT/SE98/02235	Published	WO9931757	Patent Cooperation Treaty		12/7/1998	6/24/1999	Dual band antenna
	PCT/SE99/00288	Published	WO9945680	Patent Cooperation Treaty		3/1/1999	9/10/1999	SYSTEM AND A METHOD FOR TRANSFER OF A DIGITAL INFORMATION CARRYING SIGNAL
	PCT/SE99/00289	Published	WO9945310	Patent Cooperation Treaty		3/1/1999	9/10/1999	Mounting bracket
	PCT/SE99/01010	Published	WO0001032	Patent Cooperation Treaty		6/9/1999	1/6/2000	Dual band antenna
	PCT/SE99/01111	Published	WO99/66585	Patent Cooperation Treaty		6/18/1999	12/23/1999	Device for tuning of a dielectric resonator
	PCT/SE99/01368	Published	WO0010220	Patent Cooperation Treaty		8/12/1999	2/24/2000	Coaxial cavity resonator
	PCT/SE99/02181	Published	WO0033413	Patent Cooperation Treaty		11/24/1999	6/8/2000	Microstrip filter device
	PCT/US00/01582	Published	WO0044210	Patent Cooperation Treaty		1/21/2000	7/27/2000	Multi-layer RF printed circuit architecture with low-inductance interconnection and low thermal resistance for wide-lead power
	PCT/US01/04447	Published	WO0159924	Patent Cooperation Treaty		2/8/2001	8/16/2001	Power Booster Method and Apparatus For Improving The Performance of Radio Frequency Linear Power Amplifiers
	PCT/US01/06317	Published	WO0182547	Patent Cooperation Treaty		2/28/2001	11/1/2001	System and Method for Peak Power Reduction in Spread Spectrum Communications Systems
	PCT/US01/11416	Published	WO0182469	Patent Cooperation Treaty		4/6/2001	11/1/2001	Method and apparatus for optimum biasing of cascaded MOSFET radio-frequency devices
	PCT/US01/16046	Published	WO0191288	Patent Cooperation Treaty		5/18/2001	11/29/2001	High linearity multicarrier RF amplifier
	PCT/US01/19463	Published	WO0182547	Patent Cooperation Treaty		6/19/2001	11/1/2001	System and Method for Peak Power Reduction in Multiple Carrier Communications Systems
	PCT/US01/27713	Published	WO0221887	Patent Cooperation Treaty		9/7/2001	3/14/2002	Durable Laminated Electronics Assembly using Epoxy Preform (Paseo Nuevo Platform)
	PCT/US01/50560	Published	WO02052718	Patent Cooperation Treaty		12/22/2001	7/4/2002	Feed forward amplifier loop control utilizing IF signal processing
	PCT/US01/51250	Published	WO0249102	Patent Cooperation Treaty		10/29/2001	6/20/2002	Support and cooling architecture for RF printed circuit boards having multi-pin square post type connectors for RF connectivity
	PCT/US02/18287	Published	WO03001683	Patent Cooperation Treaty		6/6/2002	1/3/2003	Dual-mode resonator
	PCT/US02/20422	Published	WO03005594	Patent Cooperation Treaty		6/28/2002	1/16/2003	System and Method for Post Filtering Peak Power Reduction in Communications Systems
	PCT/US02/24041	Published	WO03013081	Patent Cooperation Treaty		7/30/2002	2/13/2003	System and Method for Post Filtering Peak Power Reduction in Communications Systems
	PCT/US02/30636	Published	WO03030354	Patent Cooperation Treaty		9/27/2002	4/10/2003	Spurious Ratio Control Circuit for Use with Feed-Forward Linear Amplifiers
	PCT/US03/22640	Published	WO2004016057	Patent Cooperation Treaty		7/18/2003	2/19/2004	INSTALLATION SITES FOR HOUSING ELECTRONIC EQUIPMENT
	PCT/US06/10133	Published	WO2006/102278	Patent Cooperation Treaty		3/20/2006	9/28/2006	RF Power Amplifier System Employing An Analog Predistortion Module Using Zero Crossings
	PCT/US06/12202	Published	WO2006/110360	Patent Cooperation Treaty		4/3/2006	10/19/2006	System and Method for Using the Pilot Frequency from a Positive Feedback Pilot Generation and Detection Circuit to Improve Seco

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	PCT/US06/48259	Published	WO2007/075579	Patent Cooperation Treaty		12/18/2006	9/27/2007	Distributed Antenna System Employing Digital Forward Deployment Of Wireless Transmit/Receive Locations
	PCT/US06/48726	Published	WO2007/073490	Patent Cooperation Treaty		12/20/2006	6/28/2007	Crest Factor Reduction (CFR) for OFDM Using Selective Sub-Carrier Degradation
	PCT/US07/05480	Published	WO2007/106337	Patent Cooperation Treaty		3/2/2007	4/24/2008	Enhanced Efficiency Feed Forward Power Amplifier with Delay Mismatched Error Cancellation Loop
	PCT/US07/07593	Published	WO 2007/126831	Patent Cooperation Treaty		3/29/2007	11/8/2007	Broadband Dual Polarized Base Station Antenna
	PCT/US07/19438	Pending		Patent Cooperation Treaty		9/6/2007		Modular Pallet
	PCT/US11/030807	Pending		Patent Cooperation Treaty		3/31/2011		System and Method for performance enhancement in heterogeneous wireless access network
	PCT/US11/030967	Published	WO2011126945	Patent Cooperation Treaty		4/1/2011	10/13/2011	PICO Base Station Applications for use on Mobile Devices
	PCT/US11/030987	Published	WO2011/126950	Patent Cooperation Treaty		4/1/2011	10/13/2011	Reduced Size Cavity Filters for Pico Base Stations
	PCT/US12/32184	Published	WO2012138769	Patent Cooperation Treaty		4/4/2012	10/11/2012	System and Method for performance enhancement in heterogeneous wireless access network employing distributed antenna system
	PCT/US12/53788	Pending		Patent Cooperation Treaty		9/5/2012		MULTIBAND ACTIVE-PASSIVE BASE STATION ANTENNA
	PCT/US2003/039463	Published	WO2004062091	Patent Cooperation Treaty		12/11/2003	7/22/2004	Using Penalties and Floors for Control of Delay Mismatched Feed Forward Systems
	PCT/US2003/03948	Published	WO03069773	Patent Cooperation Treaty		2/12/2003	8/21/2003	Feed Forward RF Amplifier with High Efficiency Main Amplifier and Highly Linear Error Amplifier
	PCT/US2003/07092	Published	WO03075632	Patent Cooperation Treaty		3/6/2003	9/18/2003	Rf amplifier system with interface to provide a computer readable spectral depiction of the rf output
	PCT/US2003/08005	Published	WO03081793	Patent Cooperation Treaty		3/18/2003	10/2/2003	System and Method for Eliminating Signal Zero Crossings in Single and Multiple Channel Communications Systems
	PCT/US2003/12259	Published	WO03092153	Patent Cooperation Treaty		4/22/2003	11/6/2003	Bias Circuit Topologies for Minimization of RF Amplifier Memory Effects
	PCT/US2003/25978	Published	WO2004019484	Patent Cooperation Treaty		8/19/2003	3/4/2004	Enhanced Efficiency LDMOS Based Feed Forward Amplifier
	PCT/US2003/37499	Published	WO2004049559	Patent Cooperation Treaty		11/20/2003	6/10/2004	Systems and Methods of Dynamic Bias Switching for Radio Frequency Power Amplifiers
	PCT/US2003/39464	Published	WO2004062091	Patent Cooperation Treaty		12/11/2003	7/22/2004	Feed Forward System Penalties and Floors for Optimal Control
	PCT/US2004/01800	Published	WO2004065996	Patent Cooperation Treaty		1/22/2004	8/5/2004	Feed Forward Amplifier System Employing Self-Generating Alignment Lists and Adaptive Controller
	PCT/US2004/021210	Published	WO2005008883	Patent Cooperation Treaty		7/1/2004	1/27/2005	Digital Predistortion System and Method for Correcting Memory Effects within an RF Power Amplifier
	PCT/US2004/029404	Published	WO2005034338	Patent Cooperation Treaty		9/10/2004	4/14/2005	Method for Aligning Feed Forward Loops
	PCT/US2004/03847	Published	WO2004075397	Patent Cooperation Treaty		2/11/2004	9/2/2004	Enhanced Efficiency Feed Forward Power Amplifier Utilizing Reduced Cancellation Bandwidth and Small Error Amplifier
	PCT/US2004/10680	Published	WO2004095715	Patent Cooperation Treaty		4/7/2004	11/4/2004	Additive Digital Predistortion System Employing Parallel Path Coordinate Conversion
	PCT/US2004/10681	Published	WO2004093326	Patent Cooperation Treaty		4/7/2004	10/28/2004	Combiner Alignment by Adjusting the Digital Input of Transmitter Modules Based on Anti-Phase Pilot Signals
	PCT/US2004/13889	Published	WO2004102788	Patent Cooperation Treaty		5/4/2004	11/25/2004	RF Amplifier Employing Active Load Linearization
	PCT/US2004/15899	Published	WO2004107827	Patent Cooperation Treaty		5/20/2004	12/9/2004	Circuit Board Assembly Employing Solder Vent Hole
	PCT/US2005/001449	Published	WO2005069897	Patent Cooperation Treaty		1/18/2005	8/4/2005	Wideband Enhanced Digital Injection Predistortion System and Method
	PCT/US2005/004437	Published	WO2005091802	Patent Cooperation Treaty		2/14/2005	10/6/2005	Fast Control of Loop Alignment for Feed Forward Amplifiers
	PCT/US2005/005636	Published	WO2005091865	Patent Cooperation Treaty		2/23/2005	10/6/2005	Digital Predistortion System and Method for High Efficiency Transmitters
	PCT/US2005/006020	Published	WO2005086361	Patent Cooperation Treaty		2/24/2005	9/15/2005	Digitial Predistortion System and Method for Linearizing an RF Power Amplifier with Nonlinear Gain Characteristics and Memory
	PCT/US2005/008071	Published	WO2005089197	Patent Cooperation Treaty		3/9/2005	10/4/2007	Heat Pipe Assisted Pallet
	PCT/US2005/021025	Published	WO2006016964	Patent Cooperation Treaty		6/14/2005	2/16/2006	Digital Transmitter System Employing Self-Generating Predistortion Parameter Lists and Adaptive Controller
	PCT/US2005/024082	Published	WO2006017115	Patent Cooperation Treaty		7/7/2005	2/16/2006	System and Method for Differential IQ Delay Compensation in a Communications System Utilizing Adaptive AGM Compensation
	PCT/US2005/024180	Pending		India		2/21/2007		Auxiliary transistor gate bias control
	PCT/US2005/036735	Published	WO2006/052377	Patent Cooperation Treaty		10/12/2005	11/30/2006	System and Method for Forward Path Gain Control in a Digital Predistortion Linearized Transmitter
	PCT/US2005/24132	Published	WO2006017126	Patent Cooperation Treaty		7/8/2005	2/16/2006	System and Method for Digital Timing Error Correction in a Communications Systems Utilizing Adaptive Predistortion
	PCT/US2005/24180	Published	WO2006/019606	Patent Cooperation Treaty		7/11/2005	11/16/2006	Auxiliary Transistor Gate Bias Control system and method
	PCT/US2006/004338	Published	WO2006/086414	Patent Cooperation Treaty		2/8/2006	7/5/2007	Dual Mode Ceramic Filter
	PCT/US2006/034022	Published	WO2007/027884	Patent Cooperation Treaty		8/31/2006	3/8/2007	System and Method for Shielded Coaxial Cable Attachment
	PCT/US2006/034022	Pending		India		4/1/2008		System and Method for Shielded Coaxial Cable Attachment
	PCT/US2006/035108	Published	WO2007/030739	Patent Cooperation Treaty		9/8/2006	3/15/2007	Distributed Antenna System Using Signal Precursors
	PCT/US2006/035663	Published	WO 2007/035358	Patent Cooperation Treaty		9/13/2006	3/29/2007	Amplifier System Employing Analog Polynomial Predistortion with Sub-Nyquist Digital Predistortion
	PCT/US2006/13529	Published	WO 2006/113234	Patent Cooperation Treaty		4/12/2006	4/12/2007	Adaptive Predistortion Linearized Amplifier System Employing Selective Sampling
	PCT/US2007/005137	Published	WO 2007/103072	Patent Cooperation Treaty		3/2/2007	9/13/2007	Broadband single vertical polarized base station antenna
	PCT/US2007/013597	Published	WO 2007/146175	Patent Cooperation Treaty		6/7/2007	5/15/2008	Smart antenna array over fiber
	PCT/US2007/023807	Published	WO2008060527	Patent Cooperation Treaty		11/14/2007	5/22/2008	Stability recovery for an on-frequency RF repeater with adaptive echo cancellation
	PCT/US2007/025270	Pending		Patent Cooperation Treaty		12/11/2007		Time division duplex forward-to-reverse transition signal generator
	PCT/US2007/09744	Published	WO2007/124103	Patent Cooperation Treaty		4/20/2007	11/1/2007	System and Method for Estimation and Compensation of Radiated Feedback Coupling in a High Gain Repeater
	PCT/US2008/000431	Published	WO2008/088762	Patent Cooperation Treaty		1/11/2008	7/24/2008	An improved digital radio head system and method
	PCT/US2008/000738	Pending		Patent Cooperation Treaty		1/22/2008		Adaptive Echo Cancellation For An On-Frequency RF Repeater Using A Weighted Power Spectrum
	PCT/US2008/004332	Published	WO2008/124027	Patent Cooperation Treaty		4/3/2008	10/16/2008	Dual Stagger Offset-able Azimuth Beam Width Controlled Antenna for Wireless Network
	PCT/US2008/006284	Published	WO2008/143971	Patent Cooperation Treaty		5/16/2008	11/27/2008	Remote Antenna Positioning Data Acquisition
	PCT/US2008/007333	Published	WO 2008/156633	Patent Cooperation Treaty		6/11/2008	12/24/2008	Triple Stagger Offsettable Azimuth Beam Width Controlled Antenna for Wireless Network
	PCT/US2008/010851	Published	WO 2009/038739	Patent Cooperation Treaty		9/18/2008	3/26/2009	Broadband coplanar antenna element
	PCT/US2008/02845	Published	WO2008/109067	Patent Cooperation Treaty		3/4/2008	9/12/2008	Single Pole Vertically Polarized Variable Azimuth Beam Width Antenna for Wireless Network
	PCT/US2008/03176	Pending		Patent Cooperation Treaty		3/7/2008		Dual staggered vertically polarized variable azimuth beam width antenna for wireless network
	PCT/US2008/06473	Published	WO 2008/147506	Patent Cooperation Treaty		5/20/2008	12/4/2008	ON FREQUENCY REPEATER WITH AGC STABILITY DETERMIANTION
	PCT/US2008/082697	Published	WO2009061966	Patent Cooperation Treaty		11/6/2008	5/14/2009	Variable Stagger Reflector for Azimuth Beam Width Controlled Antenna
	PCT/US2008/084760	Published	WO2009070623	Patent Cooperation Treaty		12/16/2008	6/4/2009	Single Drive Variable Azimuth and Beam Tilt Antenna for Wireless Network
	PCT/US2008/084764	Published	WO2009/070626	Patent Cooperation Treaty		11/25/2008	1/14/2010	Linear Array with Azimuth Beam Augmentation by Axial Rotation
	PCT/US2009/060264	Published	WO2010042885	Patent Cooperation Treaty		10/9/2009	4/15/2010	Crest Factor Reduction (CFR) For Downlink LTE by Transmitting Phase Shifted Resource Blocks
	PCT/US2010/037657	Published	WO2010/144376	Patent Cooperation Treaty		6/7/2010	12/16/2010	Multi element amplitude and phase compensated antenna array with adaptive pre-distortion for Wireless Network
	PCT/US2011/064685	Published	WO2012/082763	Patent Cooperation Treaty		12/13/2011	7/21/2012	"DATA THROUGHPUT FOR CELL-EDGE USERS IN A LTE NETWORK USING DOWN-LINK REPEATERS AND UP-LINK HARQ RELAYS"

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	PCT/US2012/047892	Pending		Patent Cooperation Treaty		7/23/2012		High Speed Handover s in a Wireless Network
	PCT/US2012/047893	Pending		Patent Cooperation Treaty		7/23/2012		Inter-Cell Interference Coordination in Wireless Networks
	PCT/US2012/053676	Pending		Patent Cooperation Treaty		9/4/2012		Open Circuit Common Junction Feed for Duplexer
	PCT/US2012/053680	Pending		Patent Cooperation Treaty		9/4/2012		SMALL CELLS IMPLEMENTING MULTIPLE AIR INTERFACES
	PCT/US97/04079	Published	WO9737427	Patent Cooperation Treaty		3/14/1997	10/9/1997	Adaptive compensation of RF amplifier distortion by injecting predistortion signal derived from respectively different function
	PCT/US97/14003	Published	WO9812800	Patent Cooperation Treaty		8/7/1997	3/26/1998	Adaptive digital predistortion linearization and feed-forward correction of RF power amplifier
	PCT/US98/12664	Published	WO9858419	Patent Cooperation Treaty		6/17/1998	12/23/1998	Temperature compensation structure for resonator cavity
	PCT/US99/01013	Published	WO9938267	Patent Cooperation Treaty		1/19/1999	7/29/1999	Circuit arrangement for reducing intermodulation in a bandpass filter system
	PI1009687-6	Pending		Brazil		7/6/2010		Multi element amplitude and phase compensated antenna array with adaptive pre-distortion for Wireless Network
PI9608819-2	PI9608819-2	Granted	BR9608819	Brazil	6/30/2009	5/14/1996	12/7/1999	An antenna device with two radiating elements having an adjustable phase difference between the radiating elements
PI9609177-0	PI9609177-0	Granted	BR9609177	Brazil	4/30/2002	11/24/1997	8/24/1999	Movable dielectric body for controlling propagation velocity in a feed line
	PI9707916-2	Pending		Brazil		9/3/1998		Method and device for monitoring a mobile telephone repeater
PI9708946-0	PI9708946-0	Granted	BR9708946	Brazil	2/18/2003	5/12/1997	8/3/1999	Flat antenna
PI9806975-6	PI9806975-6	Granted		Brazil	5/29/2012	7/22/1999		Antenna element
	PI9807165-3	Pending		Brazil		8/5/1999		Antenna operating with two isolated channels
PI9809960-4	PI9809960-4	Allowed	BR9809960	Brazil	1/12/2010	5/18/1998	8/1/2000	Microwave resonator with dielectric tuning body resiliently secured to a movable rod by spring means
PI9813505-8	PI9813505-8	Granted		Brazil	5/2/2012	6/12/2000		Dual band antenna
	PI9906841-9	Published	BR9906841	Brazil		6/9/1999	9/4/2001	Dual band antenna
	US2007/04566	Published	WO2007/098235	Patent Cooperation Treaty		2/20/2007	8/30/2007	Optimally adaptive receiver
CN1248357C	ZL01821053.8	Granted	1484874	China (Peoples Republic)	3/29/2006	11/9/2001	3/24/2004	Four port hybrid microstrip circuit of Lange type
CN1196220C	ZL99813985.8	Granted	1329763	China (Peoples Republic)	4/6/2005	11/24/1999	1/2/2002	Microstrip filter device
		Pending		United States of America				Downlink Power Management
		Pending		United States of America				Low profile high performance integrated antenna for small cell base station
		Pending		United States of America				Unlicensed spectrum offload architecture for small-cell base stations
1186112	944474.6	Granted	EP1186112	France	5/13/2009	5/18/2000	3/13/2002	Method and apparatus for stability margin determination in a repeater
60042205.4	944474.6	Granted	EP1186112	Germany	5/19/2009	5/18/2000	3/13/2002	Method and apparatus for stability margin determination in a repeater
1346430	1272437.3	Granted	EP1346430	France	12/9/2009	12/21/2001	9/24/2003	Method for tuning a radio filter and a system for tuning a radio filter
60140765.2	1272437.3	Granted	EP1346430	Germany	3/1/2010	12/21/2001	9/24/2003	Method for tuning a radio filter and a system for tuning a radio filter
1346430	1272437.3	Granted	EP1346430	United Kingdom	4/21/2010	12/21/2001	9/24/2003	Method for tuning a radio filter and a system for tuning a radio filter
	1509031	Pending		Sweden		10/30/2012		DUAL POLARIZED DIPOLE ANTENNA
1269563	1916015.9	Granted	EP1269563	France	5/6/2009	3/20/2001	1/2/2003	Coaxial cavity resonator, filter and use of resonator component in a filter
60138607.8	1916015.9	Granted	EP1269563	Germany	5/6/2009	3/20/2001	1/2/2003	Coaxial cavity resonator, filter and use of resonator component in a filter
60142579	1983025.6	Granted	EP1346432	Germany	5/30/2010	5/15/2003	9/24/2003	Four port hybrid microstrip circuit of Lange type
1344313	1983026.4	Granted	EP1344313	United Kingdom	1/2/2008	5/15/2003	9/17/2003	Microwave amplifier with bypass segment
60235072	2711605.2	Granted	EP1378025	Germany	4/8/2010	2/13/2002	1/7/2004	CIRCUIT BOARD CONNECTOR
2335975	2711605.2	Granted	EP1378025	Spain	4/23/2010	2/13/2002	1/7/2004	CIRCUIT BOARD CONNECTOR
1378025	2711605.2	Granted	EP1378025	United Kingdom	8/18/2009	2/13/2002	1/7/2004	CIRCUIT BOARD CONNECTOR
1915798	6747834.7	Granted	EP1915798	France	8/24/2011	5/31/2006	12/7/2006	Phase Shifter
	6812946.9	Published	EP1943728	European Patent Convention		10/30/2006	7/16/2008	General LNA
	7748161.2	Published	EP2022139	European Patent Convention		5/22/2007	2/11/2009	Dual band antenna arrangement
2022136	7748171.1	Granted	EP2022136	European Patent Convention	10/4/2011	5/25/2007	12/6/2007	Down Tilt Control Unit
2022136	7748171.1	Granted	EP2022136	Germany	10/4/2011	5/25/2007	12/6/2007	Down Tilt Control Unit
	7808783	Published	EP2062366	European Patent Convention		8/31/2007	5/27/2009	Antenna Filter Combination
	7808808.5	Published	EP2062330	European Patent Convention		9/12/2007	5/27/2009	Communication solution for antennas
	7808837.4	Published	EP2064773	European Patent Convention		3/16/2008	6/3/2009	Method of manufacturing a traverse electric magnetic (TEM) mode transmission line and such transmission line
	9445008.7	Published	EP2105988	European Patent Convention		3/18/2009	9/30/2009	Transmission line and a method production of a transmission line
	9445009.5	Published	EP2109183	European Patent Convention		3/27/2009	10/14/2009	Improved Antenna Isolation I
	9445011.1	Published	EP2124300	European Patent Convention		5/15/2009	11/25/2009	Lighting Protection
	9715016.3	Published	EP2248223	European Patent Convention		1/14/2009	11/10/2010	Improved Antenna Isolation II
	12165156.6	Published	2521218	European Patent Convention		4/23/2012	11/7/2012	Antenna Array Arrangement and multi band antenna
	12446505.5	Published	2521219	European Patent Convention		4/23/2012	11/7/2012	Reflector and a multiband antenna
529457	0502453-4	Granted	SE0502453	Sweden	8/14/2007	11/4/2005	5/5/2007	General LNA
529885	0601136-5	Granted	SE529885	Sweden	12/18/2007	5/22/2006	11/23/2007	Dual band antenna arrangement
529953	0601201-7	Granted	SE529953	Sweden	1/15/2008	5/31/2006	12/1/2007	A control system for controlling the electrical tilt of an antenna
530302	0601889-9	Granted		Sweden	4/22/2008	9/14/2006	3/15/2008	Antenna Filter Combination
530306	0601909-5	Granted	SE530306	Sweden	4/29/2008	9/15/2006	3/16/2008	Communication solution for antennas
	0601971-5	Pending		Sweden		9/22/2006		Method of manufacturing a traverse electric magnetic (TEM) mode transmission line and such transmission line
5963854	08/809,071	Granted		United States of America	10/5/1999	3/14/1997		Antenna amplifier
5864259	08/836,637	Granted		United States of America	1/26/1999	6/3/1997		Measuring line for a coaxial conductor for determining energy throughflow and standing wave ratios
532390	0800642-1	Granted		Sweden	1/12/2010	3/19/2008		Transmission line and a method production of a transmission line
533885	0900515-8	Granted	SE533885	Sweden	2/20/2011	4/17/2009	2/20/2011	Antenna assembly consisting of two or more single array antenna assemblies
7388458	11/252,888	Granted	2006-0111070	United States of America	6/17/2008	10/19/2004	5/25/2006	A DC-extracting arrangement and a filter
8130161	11/791,378	Granted	2008-0036670	United States of America	3/6/2012	11/25/2005	2/14/2008	Antenna control system
7505010	11/791,421	Granted	2007-0290935	United States of America	3/17/2009	11/25/2005	12/20/2007	Antenna control system

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7999737	11/920,879	Granted	2009-0040105	United States of America	8/16/2011	5/31/2006	2/12/2009	Improved AEDT
7999737	11/920,879	Granted	2009-0040105	United States of America	8/16/2011	5/31/2006	2/12/2009	Beam adjusting device
	1150395-0	Pending		Sweden		5/5/2011		Antenna Array Arrangement and multi band antenna
	1150396-8	Pending		Sweden		5/5/2011		Reflector and a multiband antenna
7800438	12/084,445	Granted	2009-0256633	United States of America	9/21/2010	10/30/2006	10/15/2009	General LNA
8269687	12/301,999	Granted	2010-0283702	United States of America	9/18/2012	5/22/2007	11/11/2010	Dual band antenna arrangement
	12/302,788	Allowed	2010-0289698	United States of America		5/25/2007	11/18/2010	Down Tilt Control Unit
	12/392,007	Published	2009-0213013	United States of America		2/24/2009	8/27/2009	Improved Antenna Isolation II
8130165	12/392,029	Granted	2009-0224848	United States of America	3/6/2012	2/24/2009	9/10/2009	Transverse phase shifter
8228139	12/406,839	Granted	2009-0243763	United States of America	7/24/2012	3/18/2009	10/1/2009	Transmission line and a method production of a transmission line
8237518	12/441,373	Granted	2009-0295504	United States of America	8/7/2012	8/31/2007	12/3/2009	Antenna Filter Combination
8279127	12/441,375	Granted	2010-0164803	United States of America	10/2/2012	9/12/2007	7/1/2010	Communication solution for antennas
	12/442,376	Published	2009-0302977	United States of America		9/24/2007	12/10/2009	Method of manufacturing a traverse electric magnetic (TEM) mode transmission line and such transmission line
	12/471,244	Published	2009-0296296	United States of America		5/22/2009	12/3/2009	Lighting Protection
	12/624,305	Published	2010-0141532	United States of America		11/23/2009	6/10/2010	Improved Antenna Isolation II
	12/759,582	Published	2010-0265150	United States of America		4/13/2010	10/21/2010	Antenna assembly consisting of two or more single array antenna assemblies
	553/KOLNP/2009	Pending		India		9/12/2007		Communication solution for antennas
	820/KOLNP/2008	Pending		India		10/30/2006		General LNA
	PCT/SE2006/001221	Published	WO2007/053077	Patent Cooperation Treaty		10/30/2006	5/10/2007	General LNA
	PCT/SE2007/000497	Published	WO2007/136333	Patent Cooperation Treaty		5/22/2007	11/29/2007	Dual band antenna arrangement
	PCT/SE2007/000507	Published	WO2007/139467	Patent Cooperation Treaty		5/25/2007	12/6/2007	Down Tilt Control Unit
	PCT/SE2007/000760	Published	WO2008/033068	Patent Cooperation Treaty		8/31/2007	3/20/2008	Antenna Filter Combination
	PCT/SE2007/000795	Published	WO2008/033076	Patent Cooperation Treaty		9/12/2007	3/20/2008	Communication solution for antennas
	PCT/SE2007/000834	Published	WO2008036029	Patent Cooperation Treaty		9/24/2007	3/27/2008	Method of manufacturing a traverse electric magnetic (TEM) mode transmission line and such transmission line
6407923	09/734,230	Granted	2002-0071251	United States of America	6/18/2002	12/11/2000	6/13/2002	Support and cooling architecture for RF printed circuit boards having multi-pin square post type connectors for RF connectivity
7326667	11/354,220	Granted	2007-0035216	United States of America	2/5/2008	2/13/2006	2/15/2007	Microwave dielectric ceramic
6617817	09/872,294	Granted		United States of America	9/9/2003	6/1/2001		Electrical time constant compensation method for switched, voltage-mode driver circuit
1208615	957206.6	Allowed	EP1208615	France	11/5/2008	8/23/2000	5/29/2002	Four port hybrid
1208615	957206.6	Allowed	EP1208615	United Kingdom	11/5/2008	8/23/2000	5/29/2002	Four port hybrid
1342285	1270919.2	Granted	EP1342285	United Kingdom	7/16/2008	12/10/2001	9/10/2003	Wave-guide and a connector therefor
	1901814.2	Allowed	EP1245077	Finland		1/8/2001	10/2/2002	Carrier-blanking mechanism for sweeping detector used to measure and correct RF power amplifier distortion
	1901814.2	Allowed	EP1245077	France		1/8/2001	10/2/2002	Carrier-blanking mechanism for sweeping detector used to measure and correct RF power amplifier distortion
	1901814.2	Allowed	EP1245077	Germany		1/8/2001	10/2/2002	Carrier-blanking mechanism for sweeping detector used to measure and correct RF power amplifier distortion
	1901814.2	Allowed	EP1245077	Sweden		1/8/2001	10/2/2002	Carrier-blanking mechanism for sweeping detector used to measure and correct RF power amplifier distortion
1340287	1979182.1	Granted	EP1340287	United Kingdom	12/12/2007	10/26/2001	9/3/2003	Microwave antenna with patch mounting device
	2711605.2	Published	EP1378025	France		2/13/2002	1/7/2004	CIRCUIT BOARD CONNECTOR
1502362	3745111.9	Granted	EP1502362	Finland	6/22/2011	3/18/2003	2/2/2005	System and Method for Eliminating Signal Zero Crossings in Single and Multiple Channel Communications Systems
1502362	3745111.9	Granted	EP1502362	France	6/22/2011	3/18/2003	2/2/2005	System and Method for Eliminating Signal Zero Crossings in Single and Multiple Channel Communications Systems
1502362	3745111.9	Granted	EP1502362	Germany	6/22/2011	3/18/2003	2/2/2005	System and Method for Eliminating Signal Zero Crossings in Single and Multiple Channel Communications Systems
1502362	3745111.9	Granted	EP1502362	Sweden	6/22/2011	3/18/2003	2/2/2005	System and Method for Eliminating Signal Zero Crossings in Single and Multiple Channel Communications Systems
1502362	3745111.9	Granted	EP1502362	United Kingdom	6/22/2011	3/18/2003	2/2/2005	System and Method for Eliminating Signal Zero Crossings in Single and Multiple Channel Communications Systems
1573900	3790473.7	Granted	EP1573900	Finland	2/11/2011	12/11/2003	9/14/2005	Feed Forward Amplifier System Using Penalties and Floors for Optimal Control
1573900	3790473.7	Granted	EP1573900	France	2/11/2011	12/11/2003	9/14/2005	Feed Forward Amplifier System Using Penalties and Floors for Optimal Control
1573900	3790473.7	Granted	EP1573900	Germany	2/11/2011	12/11/2003	9/14/2005	Feed Forward Amplifier System Using Penalties and Floors for Optimal Control
1573900	3790473.7	Granted	EP1573900	Sweden	2/11/2011	12/11/2003	9/14/2005	Feed Forward Amplifier System Using Penalties and Floors for Optimal Control
1590893	4704477.1	Granted	EP1590893	Sweden	1/21/2009	1/22/2004	11/2/2005	Feed Forward Amplifier System Employing Self-Generating Alignment Lists and Adaptive Controller
	4710155.5	Published	EP1609238	Sweden		2/11/2004	12/28/2005	Enhanced Efficiency Feed Forward Power Amplifier Utilizing Reduced Cancellation Bandwidth and Small Error Amplifier
	4721210.5	Allowed	EP1604425	France		3/17/2004	12/14/2005	Resonator filter
	4721210.5	Allowed	EP1604425	Italy		3/17/2004	12/14/2005	Resonator filter
	4721210.5	Allowed	EP1604425	Sweden		3/17/2004	12/14/2005	Resonator filter
1695438	4798914	Granted	EP1695438	Finland	7/4/2011	11/20/2004	6/2/2005	Amplifier Linearization Using Nonlinear Predistortion
1695438	4798914	Granted	EP1695438	France	7/4/2011	11/20/2004	6/2/2005	Amplifier Linearization Using Nonlinear Predistortion
1695438	4798914	Granted	EP1695438	Sweden	7/4/2011	11/20/2004	6/2/2005	Amplifier Linearization Using Nonlinear Predistortion
	5804666.5	Published	EP1815557	France		11/25/2005	8/8/2007	Antenna control system
	5804666.5	Published	EP1815557	Germany		11/25/2005	8/8/2007	Antenna control system
	5804666.5	Published	EP1815557	United Kingdom		11/25/2005	8/8/2007	Antenna control system
	5812850.5	Allowed	WO2006052377	France		10/12/2005	5/18/2006	System and Method for Forward Path Gain Control in a Digital Predistortion Linearized Transmitter
	5812850.5	Allowed	WO2006052377	Germany		10/12/2005	5/18/2006	System and Method for Forward Path Gain Control in a Digital Predistortion Linearized Transmitter
	5812850.5	Allowed	WO2006052377	Sweden		10/12/2005	5/18/2006	System and Method for Forward Path Gain Control in a Digital Predistortion Linearized Transmitter
	5812850.5	Allowed	WO2006052377	United Kingdom		10/12/2005	5/18/2006	System and Method for Forward Path Gain Control in a Digital Predistortion Linearized Transmitter
	6739069	Allowed	EP1869762	Finland		3/20/2006	12/26/2007	RF Power Amplifier System Employing An Analog Predistortion Module Using Zero Crossings
	6739069	Allowed	EP1869762	France		3/20/2006	12/26/2007	RF Power Amplifier System Employing An Analog Predistortion Module Using Zero Crossings
	6739069	Allowed	EP1869762	Germany		3/20/2006	12/26/2007	RF Power Amplifier System Employing An Analog Predistortion Module Using Zero Crossings
	6739069	Allowed	EP1869762	Sweden		3/20/2006	12/26/2007	RF Power Amplifier System Employing An Analog Predistortion Module Using Zero Crossings

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Patent #	Application #	Status	Public #(US PTO)	Country / Region	Issue Date	Filing Date	Publication Date	Title of the Patent
1915798	6747834.7	Granted	EP1915798	Finland	8/24/2011	5/31/2006	12/7/2006	Phase Shifter
1915798	6747834.7	Granted	EP1915798	Germany	8/24/2011	5/31/2006	12/7/2006	Phase Shifter
1915798	6747834.7	Granted	EP1915798	United Kingdom	8/24/2011	5/31/2006	12/7/2006	Phase Shifter
1952479	6820900.6	Granted	EP1952479	France	11/23/2011	11/16/2006	8/6/2008	Smart Pole
	7704849.4	Allowed	EP1989754	France		2/14/2007	7/9/2007	Directional Coupler
	7704849.4	Allowed	EP1989754	United Kingdom		2/14/2007	7/9/2007	Directional Coupler
2022136	7748171.1	Granted	EP2022136	Finland	10/4/2011	5/25/2007	12/6/2007	Down Tilt Control Unit
2022136	7748171.1	Granted	EP2022136	France	10/4/2011	5/25/2007	12/6/2007	Down Tilt Control Unit
2022136	7748171.1	Granted	EP2022136	Spain	10/4/2011	5/25/2007	12/6/2007	Down Tilt Control Unit
	7751869.4	Allowed	EP1997186	France		3/2/2007	9/13/2007	Broadband single vertical polarized base station antenna
	7751869.4	Allowed	EP1997186	Germany		3/2/2007	9/13/2007	Broadband single vertical polarized base station antenna
	7751869.4	Allowed	EP1997186	Sweden		3/2/2007	9/13/2007	Broadband single vertical polarized base station antenna
	7751869.4	Allowed	EP1997186	United Kingdom		3/2/2007	9/13/2007	Broadband single vertical polarized base station antenna
	8847232.9	Allowed	EP2218119	France		11/6/2008	8/18/2010	Variable Stagger Reflector for Azimuth Beam Width Controlled Antenna
	8847232.9	Allowed	EP2218119	Germany		11/6/2008	8/18/2010	Variable Stagger Reflector for Azimuth Beam Width Controlled Antenna
	8847232.9	Published	EP2218119	Sweden		11/6/2008	8/18/2010	Variable Stagger Reflector for Azimuth Beam Width Controlled Antenna
2372903	11154332.8	Granted	EP2372903	Finland	7/4/2012	9/10/2004	10/5/2011	Method for Aligning Feed Forward Loops
2372903	11154332.8	Granted	EP2372903	Sweden	7/4/2012	9/10/2004	10/5/2011	Method for Aligning Feed Forward Loops
1088362	99931732.4	Allowed	EP1088362	Italy	11/15/2006	6/18/1999	4/4/2001	Device for tuning of a dielectric resonator
	7460/DELNP/2008	Pending		India		6/12/2006		A new antenna structure and a method for its manufacture
		Published		India		3/2/2007		Broadband single vertical polarized base station antenna