# PATENT ASSIGNMENT

# Electronic Version v1.1 Stylesheet Version v1.1

 SUBMISSION TYPE:
 NEW ASSIGNMENT

 NATURE OF CONVEYANCE:
 ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
Paragon Communications Ltd.	01/05/2012

#### **RECEIVING PARTY DATA**

Name:	QUALCOMM Incorporated			
Street Address:	5775 Morehouse Drive			
City:	San Diego			
State/Country:	CALIFORNIA			
Postal Code:	92121-1714			

PROPERTY NUMBERS Total: 12

Property Type	Number
Patent Number:	6437641
Patent Number:	6492867
Patent Number:	6831519
Patent Number:	6985039
Patent Number:	7046090
Patent Number:	7257384
Patent Number:	7710203
Patent Number:	7782132
Patent Number:	7868700
Patent Number:	7899417
Patent Number:	7932780
Patent Number:	6091297

# **CORRESPONDENCE DATA**

Fax Number: (858)658-2502 Phone: (858) 651-5205

501809606

PATENT REEL: 027652 FRAME: 0235 Email: usdocketing@qualcomm.com

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

via US Mail.

Correspondent Name: QUALCOMM Incorporated Address Line 1: 5775 Morehouse Drive

Address Line 4: San Diego, CALIFORNIA 92121-1714

ATTORNEY DOCKET NUMBER: 121111-121128

NAME OF SUBMITTER: Karen M Cruz

Total Attachments: 10

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# Exhibit B Instrument of Assignment

#### ASSIGNMENT

WHEREAS, Paragon Communications Ltd., an Israel company (the "Seller") is the owner of certain patents and patent applications described on Attachment 1 hereto. Seller hereby agrees to sell, assign, transfer and convey all right, title and interest in and to such patents and patent applications (and all patents issuing on such patent applications), together with all reissues, reexaminations, extensions, divisionals, continuations, continuations-in-part and foreign counterparts of any such patents and patent applications (and any patents issuing on such patent applications (including those deriving priority iberefrom)), and all inventions (whether patentable or not) which are described in each of the foregoing items which are (i) included in any claim appearing in any of the foregoing items or (ii) capable of being reduced to a claim in any other patent application which claims priority from any of the foregoing items, to QUALCOMM Incorporated, a corporation organized under the laws of Delaware, and to evidence such assignment and transfer in this Assignment.

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

Seller hereby irrevocably and unconditionally sells, assigns, transfers and conveys to QUALCOMM Incorporated, and its successors and assigns, all right, title and interests in and to each patent and patent application listed on Attachment 1 attached hereto (and all patents issuing on such patent applications), together with all reissues, reexaminations, extensions, divisionals, continuations, continuations-in-part and foreign counterparts of any such patents and patent applications (and any patents issuing on such patent applications (including those deriving priority therefrom)), and all inventions (whether patentable or not) which are described in each of the foregoing items which are (i) included in any claim appearing in any of the foregoing items or (ii) capable of being reduced to a claim in any other patent application claiming priority from any of the foregoing items. This sale, assignment, transfer and conveyance to QUALCOMM Incorporated, and its successors and assigns, includes, without limitation, the right to enforce, assert and sue for past, present and future infringement on each of the foregoing items, and the right to recover and collect for past, present and future damages and to seek injunctive relief with respect thereto.

Sciller hereby represents to QUALCOMM incorporated that it has the rightpower and authority to make the foregoing sale, assignment, transfer and conveyance

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of each of the foregoing items to QUALCOMM Incorporated and its successors and assigns. Seller hereby agrees to, and shall execute upon request of QUALCOMM Incorporated, all powers of attorney, applications, assignments, declarations, affidavily and other papers in connection therewith to perfect such right, title and interest in figure ioregoing items for the benefit of QUALCOMM Incorporated and its successors and assigns. Seller shall testify in any and all legal proceedings, sign all lawful papers, and do everything possible to vest title and all ownership rights and interests in the foregoing items in QUALCOMM Incorporated and its successors and assigns, and to aid QUALCOMM Incorporated and its successors and assigns in obtaining, maintaining and enforcing proper protection for all of such items.

IN WITNESS WHEREOF, the undersigned has caused this Assignment to be executed, on behalf of Paragon Communications Ltd, an israel company, on TAMPAY \$20.12

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•	Paragon Communications Ltd.
<b>₹</b>	8y: <u>Oli 4 GTII</u>
	Printed Name: Eli Plotnik
	Title: Chief Executive Officer
COUNTRY OF ISRAEL	)
CITY OF	; }
personally known to me or prove person whose name is subscribed that he executed the within instr- Officer of Paragon Communication	, 20, personally appeared Eli Plotsii d to me on the basis of satisfactory evidence to be th I to the within instrument, and acknowledged to m ument in has authorized capacity of Chief Executiv ons Ltd., an Israel company, and that he signed th will and for the purpose expressed therein.
WITNESS my hand and official se	ral;
Notary Public:	
My commission expires:	

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# Attachment 1 Patents and Patent Applications

# Patents

No.	Country	Patent Number	Filing Date	Issue Date	Description/Title	Status
1	United States of America	6,437,641	9/26/2000	8/20/2002	Method and Apparatus for Improving the Efficiency of Power Amplifiers, Operating under a Large Peak-to- Average Ratio	Granted
2	United States of America	6,492,867	3/22/2001	12/10/2002	Method and Apparatus for Improving the Efficiency of Power Amplifiers, Operating under a Large Peak-to- Average Ratio	Granted
3	United States of America	6,831,519	4/18/2003	12/14/2004	Efficient supply enhancement circuitry for power amplifiers	Granted
4	United States of America	6,985,039	4/21/2004	1/10/2006	Method and apparatus for providing a stable power output of power amplifiers, operating under unstable supply voltage conditions	Granted
5	United States of America	7,046,090	8/5/2004	5/16/2006	Method and apparatus for dynamically regulating the supply voltage of a power amplifier	Granted
6	United States of America	7,257,384	4/18/2003	8/14/2007	Methods and apparatus for detecting the envelope of RF power signals	Granted
7	United States of America	7,710,203	11/13/2007	5/4/2010	Transformer-capacitor enhancement circuitry for power amplifiers	Granted
8	United States of America	7,782,132	4/1/2008	8/24/2010	Method and apparatus for improving the performance of MIMO wireless systems	Granted
9	United States of America	7,868,700	6/1/2008	1/11/2011	Method and apparatus for reducing current consumption of MIMO systems	Granted
10	United States of America	7,899,417	1/27/2008	3/1/2011	Method and apparatus for increasing the efficiency of low power amplifiers	Granted
11	United States of	7,932,780	12/31/2007	4/26/2011	Method for	Granted

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	America				implementation and parameter settings of a voltage enhancement circuit for amplifiers as an integrated circuit (IC)	
12	European Patent Office	1264395	3/8/2001	9/10/2003	Improved Method and Apparatus for Improving the efficiency of power amplifiers, operating under a large peak-to-average ratio	Granted
13	European Patent Office	1509998	5/8/2003	9/13/2006	Apparatus for detecting the envelope of RF power signals	Granted
14	United Kingdom	2440485	4/27/2006	6/3/2009	Transformer-capacitor enhancement circuitry for power amplifiers	Granted
15	United Kingdom	2440702	5/21/2006	7/8/2009	Method for implementation and parameter settings of a voltage enhancement circuit for amplifiers as an integrated circuit (IC)	Granted
16	United Kingdom	2441675	5/21/2006	9/22/2010	Method and Apparatus for Sensing the Envelope of High Level Multi Frequency Band RF Signals	Granted
17	United Kingdom	2442924	7/20/2006	10/20/2010	A Method and Apparatus for Increasing the Efficiency of Low Power Amplifiers	Granted
18	United Kingdom	2 <del>444</del> 890	9/26/2006	4/14/2010	Method and Apparatus for Improving the Performance of MIMO Wireless Systems	Granted
19	United Kingdom	2446351	11/28/2006	7/20/2011	Method and Apparatus for Optimizing Current Consumption of Amplifiers with Power Control	Granted
20	China	ZL01809015.X	3/8/2001	12/6/2006	Improved Method and Apparatus for Increasing the Efficiency of Power Amplifiers	Granted
21	Switzerland	1264395	3/8/2001	9/10/2003	Improved Method and Apparatus for Improving the efficiency of power amplifiers, operating under a large peak-to-average ratio	Abandoned
22	Germany	1264395	3/8/2001	9/10/2003	Improved Method and Apparatus for	Lapsed

					Improving the efficiency of power amplifiers, operating under a large peak-to-average ratio	
23	Finland	1264395	3/8/2001	9/10/2003	Improved Method and Apparatus for Improving the efficiency of power amplifiers, operating under a large peak-to-average ratio	Closed
24	United Kingdom	1264395	3/8/2001	9/10/2003	Improved Method and Apparatus for Improving the efficiency of power amplifiers, operating under a large peak-to-average ratio	Granted
25	Sweden	1264395	3/8/2001	9/10/2003	Improved Method and Apparatus for Improving the efficiency of power amplifiers, operating under a large peak-to-average ratio	Closed
26	United Kingdom	1509998	5/8/2003	9/13/2006	Apparatus for detecting the envelope of RF power signals	Granted
27	Israel	151607	3/8/2001	12/6/2006	Improved Method and Apparatus for Increasing the Efficiency of Power Amplifiers Operating Under a Large Peak-to-Average Ratio	Abandoned

# **Patent Applications**

No.	Country	Application No.	Filing Date	Publication Date	Description/Title	Status
28	Canada	2402468	3/8/2001		Improved Method and Apparatus for Increasing the Efficiency of Power Amplifiers Operating Under a Large Peak-to-Average Ratio	Abandoned
29	Israel	125022	6/21/1998		Methods and Apparatus for Adaptive Adjustments of Feed- Forward Linearized Amplifiers	Abandoned
30	Israel	150007	6/3/2002		Efficient Supply Enhancement Circuitry for Power Amplifiers	Abandoned

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31	Israel	155581	4/25/2003		Method and apparatus for providing a stable power output of power amplifiers, operating under unstable supply voltage conditions	Abandoned
32	Israel	150006	6/3/2002		Methods and apparatus for detecting the envelope of RF power signals	Abandoned
33	Japan	2001-566254	3/8/2001		Improved Method and Apparatus for Increasing the Efficiency of Power Amplifiers Operating Under a Large Peak-to-Average Ratio	Abandoned
34	Republic of Korea	10-2002-7011621	3/8/2001	2/12/2003	Improved Method and Apparatus for Increasing the Efficiency of Power Amplifiers Operating Under a Large Peak-to-Average Ratio	Abandoned
35	Singapore	2002051571	3/8/2001		Improved Method and Apparatus for Increasing the Efficiency of Power Amplifiers Operating Under a Large Peak-to-Average Ratio	Abandoned
36	United States of America	12/094,639	5/22/2008	10/23/2008	Method and Apparatus for Optimizing Current Consumption of Amplifiers with Power Control	Pending (Allowed)
37	United States of America	11/914,747	12/13/2007	4/16/2009	Method and Apparatus for Sensing the Envelope of High Level Multi Frequency Band RF Signals	Pending
38	United States of America	12/514,402	12/20/2009	4/29/2010	Method and Apparatus for Automatically Controlling an XNN Enhancement Circuitry Feeding a Power Amplifier	Pending
39	United States of America	60/188,194	3/10/2000		Method and Apparatus that Avoid the Need for Clipping Signals of Large Peak-to-Average	Expired

					Ratio	
40	United States of America	60/478,765	6/16/2003		Method and Apparatus for Dynamically Regulating the Supply Voltage of a Power Amplifier	Expired
41	United States of America	60/675,063	4/27/2005		Transformer-Capacitor Enhancement Circuitry for Power Amplifiers	Expired
42	United States of America	60/720,173	9/26/2005		Method and Apparatus for Improving the Performance of MIMO Wireless Systems	Expired
43	United States of America	60/739,742	11/28/2005		Method and Apparatus for Reducing Current Consumption of MIMO Systems	Expired
44	United States of America	60/700,705	7/20/2005		Method and Apparatus for Increasing the Efficiency of Low Power Amplifiers	Expired
45	United States of America	60/682,705	5/20/2005		Method for Implementation and Parameter Settings of a Voltage Enhancement Circuit for Amplifiers as an Integrated Circuit (IC)	Expired
46	United States of America	60/741,550	11/28/2005		Method and apparatus for optimizing current consumption of amplifiers with power control	Expired
47	United States of America	60/682,637	5/25/2005		Method and Apparatus for Sensing the Envelope of High Level Multi Frequency Band RF Signals	Expired
48	United States of America	60/860,094	11/21/2006		Method and Apparatus for Automatically Controlling an XNN® Enhancement Circuitry Feeding a Power Amplifier	Expired
49	United Kingdom	0908505.1	11/21/2007	7/15/2009	Method and Apparatus for Automatically Controlling an XNN Enhancement Circuitry Feeding a Power Amplifier	Pending

50	World International Property Organization	PCT/IL2000/000599	9/26/2000	9/13/2001	Method and Apparatus for Improving the efficiency of Power Amplifiers, Operating Under a Large Peak-to- Average Ratio	Time Limit for Entering National Phase Expired
51	World International Property Organization	PCT/IL2001/000221	3/8/2001	9/13/2001	Improved Method and Apparatus for Improving the efficiency of Power Amplifiers, Operating Under a Large Peak-to-Average Ratio	Time Limit for Entering National Phase Expired
52	World Intellectual Property Organization	PCT/IL2003/000364	5/5/2003	12/11/2003	Efficient Supply Enhancement Circuitry for Power Amplifiers	Time Limit for Entering National Phase Expired
53	World Intellectual Property Organization	PCT/IL2004/000522	6/16/2004	12/23/2004	Method and Apparatus for Dynamically Regulating the Supply Voltage of a Power	Time Limit for Entering National Phase Expired
54	World Intellectual Property Organization	PCT/IL2006/000512	4/27/2006	11/2/2006	Transformer Capacitor Enhancement Circuitry for Power Amplifiers	Time Limit for Entering National Phase Expired
55	World Intellectual Property Organization	PCT/IL2006/000597	5/21/2006	11/23/2006	Method and Apparatus for Sensing the Envelope of High Level Multi Frequency Band RF Signals	Time Limit for Entering National Phase Expired
56	World Intellectual Property Organization	PCT/IL2006/000598	5/21/2006	11/23/2006	Method for Implementation and Parameter Settings of a Voltage Enhancement Circuit for Amplifiers as an Integrated Circuit (IC)	Time Limit for Entering National Phase Expired
57	World Intellectual Property Organization	PCT/IL2006/000848	7/20/2006	1/25/2007	A Method and Apparatus for Increasing the Efficiency of Low Power Amplifiers	Time Limit for Entering National Phase Expired
58	World Intellectual Property Organization	PCT/IL2006/001130	9/26/2006	3/29/2007	Method and Apparatus for Improving the Performance of MIMO Wireless Systems	Time Limit for Entering National Phase Expired
59	World Intellectual Property	PCT/IL2006/001372	11/28/2006	5/31/2007	Method and Apparatus for Optimizing Current Consumption of	Time Limit for Entering National Phase Expired

	Organization				Amplifiers with Power Control	
60	World Intellectual Property Organization	PCT/IL2006/001373	11/28/2006	5/31/2007	Method and apparatus for reducing current consumption MIMO systems	Time Limit for Entering National Phase Expired
61	World Intellectual Property Organization	PCT/IL2007/001439	11/21/2007	5/29/2008	Method and Apparatus for Automatically Controlling an XNN Enhancement Circuitry Feeding a Power Amplifier	Time Limit for Entering National Phase Expired
62	World Intellectual Property Organization	PCT/IL2003/000372	5/8/2003	12/11/2003	Apparatus for Detecting the Envelope of RF Power Signals	Time Limit for Entering National Phase Expired

Form No. 1

טופס מסי 1

# AUTHENTICATION OF SIGNATURE

I the undersigned Prof. Joseph Gross, Notary at Tel-Aviv-Jaffa, Israel, hereby certify that on January 5, 2012 there appeared before me at my office Mr. Eliyahu Plotaik, whose identity was proven to me by an Israeli ID no. 054549977, issued in Kfar Saha on September 19, 2000 and he signed in his personal capacity and of his own free will, the attached document.

אימות חתימה

אני החיים פרופ' יוסף גרוס נוטריון בתל-אביב-יפו, ישראל, מאשר כי ביום 5 בינואר 2012 ניצב לפני במשרדי מר אליתו פלוסניק, שזהותו הזכחה לי על פי תעודת זהות ישראלית מספר 57845458, אשר הנופקה ביום 19 בספטמבר 2000 בכפר סבא, וחתם בשמו אישית ומרצונו החופשי על המסמך המצורף.

In witness thereof I hereby authenticate the signature of Mr. Eliyahu Plotnik, by my own signature and scal this January 5, 2012.

NIS 181 fees due.

Signature

Notary's Seal

ולראיה העי מאמת את התימתו של מר אליתו <mark>מלוטניק</mark> בהתימת ידי ובחותמי, היום *5בינואר 20*12.

חיים שכך בסך 181 ש.

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חותם הווטרטן

PATENT REEL: 027652 FRAME: 0246

RECORDED: 02/03/2012