



***Test Report No. 8912338266***

***For ALVARION Ltd.***

***Equipment Under Test:***

***WiMAX 802.16e Self-Install Residential Gateway***

***Model: RG230***

***From The Standards Institution  
Of Israel  
Industry Division  
Electronics & Telematics Laboratory  
EMC Section***



***ACCLASS Accreditation Services  
Certificate Number: IT-1359***



**Test report No:** 8912338266

**Page 1 of 23 Pages**

**Title:** WiMAX 802.16e Self-Install Residential Gateway

**Model:** RG230

## Table of Contents

1.	Applicant information.....	2
2.	Test performance .....	2
3.	Summary of test: .....	3
4.	Equipment under test description .....	4
4.1	General description .....	4
4.2	EUT test configuration .....	5
5.	Test results .....	6
5.1	Transmitter characteristics .....	6
5.1.1	Peak EIRP power test § 25.254 (b)(2). .....	6
5.1.2	Out of channel interference emission § 25.254(b) (3).....	9
5.1.3	EIRP density test in 1559 - 1610 MHz band § FCC 08-254 (35) .....	12
5.1.4	Unacceptable interference in 1610.6 – 1613.8 MHz band § 25.254(b) (1) .....	15
APPENDIX A	Photographs .....	18
APPENDIX B	Test equipment used .....	19
APPENDIX C	General information .....	23

**Test report No:** 8912338266**Page 2 of 23 Pages****Title:** WiMAX 802.16e Self-Install Residential Gateway**Model:** RG230

## 1. Applicant information

<b>Order placed by:</b>	Accton Wireless Broadband Corp.
<b>Address:</b>	3F No.1 Creation Rd. III, Science-based Industrial Park Hsinchu 30077, Taiwan, R.O.C
<b>Sample for test selected by:</b>	The customer
<b>The date of test:</b>	7 - 9 July 2009

## Equipment under test information

<b>Description of Equipment Under Test (EUT):</b>	WiMAX 802.16e Self-Install Residential Gateway
<b>Model:</b>	RG230
<b>Serial Number:</b>	NA
<b>Manufactured by:</b>	Accton Wireless Broadband Corp.

## 2. Test performance

<b>Location:</b>	SII EMC Section
<b>Purpose of test:</b>	Apparatus compliance verification in accordance with emission requirements
<b>Test specifications:</b>	47CFR part 25 § 25.254, part 1 §1.1307, 1.1310

This Test Report contains 23 pages  
and may be used only in full.

This Test Report applies only to the specimen tested and may not  
be applied to other specimens of the same product.

**Test report No: 8912338266****Page 3 of 23 Pages****Title: WiMAX 802.16e Self-Install Residential Gateway****Model: RG230****3. Summary of test:****The EUT was found to be in compliance with requirements of: 47CFR Part 25 §§ 25.254**

Parameter	Subclasses
<b>Transmitter characteristics</b>	
Peak EIRP	25.254 (b)(2)
Out of channel interference emission	25.254 (b)(3)
EIRP density in 1559 – 1610 MHz band	FCC 08-254 (35)
Out of channel emission in 1610.6 – 1613.8 MHz band	25.254 (b)(1)

Test performed by: Mr. Michael Feldman test technician

Test report prepared by: Mr. Michael Feldman test technician

Test report approved by: Mr. Yuri Rozenberg. Head of EMC Branch

**Test report No: 8912338266****Page 4 of 23 Pages****Title: WiMAX 802.16e Self-Install Residential Gateway****Model: RG230**

#### 4. Equipment under test description.

\*The customer provided description.

##### 4.1 General description

**BreezeMAX RGW Si** – compact, nomadic single-box wireless access device.

The BreezeMAX RGW Si is an indoor device. It is designed for plug and play operation with easy-to-install and self provisioning capabilities. BreezeMAX RGW Si is suitable for home networking with services and interfaces, and includes four 10/100 Base-T for IP data and two VoIP (RJ11) ports for voice services.

The BreezeMax RGW SI covers the ATC and MDS band from 2483.5 up to 2690MHz.

The model RG230 may be presented in the following configurations:

Model names	Data ports	Voice ports
RG230-2.5-1D	1	0
RG230-2.5-1D2V	1	2
RG230-2.5-4D	4	0
RG230-2.5-4D2V*	4	2

\* Tested model.

The radio circuits are identical in all 4 models. The unit was tested in the worst case scenario.

This report is an amendment to the original test report RF970625H07B extending the frequency range to the ATC frequency band.

##### EUT technical characteristics

Transmitter technical characteristics.		Note	
Stand-alone/fixed use			
Assigned frequency range	2483.5 MHz - 2690 MHz		
Operating frequency range	2485 – 2690 MHz	Adding 2490MHz central frequency	
Emission bandwidth	10 MHz		
Maximum rated output power	26 dBm		
Antenna gain	5 dBi		
Type of modulation	BPSK, 4QAM, 16QAM, 64QAM		
Type of multiplexing	OFDMA		
Modulating test signal (baseband)	PRBS		
Maximum transmitter duty cycle in normal use	40 %		
Transmitter duty cycle supplied for test	100 %		
Antenna/Filter information			
Type	Manufacturer	Model	Gain
Omni	LCT	F1B 25G5DB-W52P	5 dBi

**Test report No: 8912338266****Page 5 of 23 Pages****Title: WiMAX 802.16e Self-Install Residential Gateway****Model: RG230**

#### 4.1.1 Environmental evaluation and exposure limit according to FCC CFR 47 part 1, §1.1307, §1.1310.

Limit for power density for general population/uncontrolled exposure is  $1(\text{mW}/\text{cm}^2)$  or  $10 (\text{W}/\text{m}^2)$ .

The power density calculation  $S = (Pt / 4\pi r^2)$ .

Where

Pt - The transmitted power (EIRP) (mW)

r - The distance from the unit. (cm)

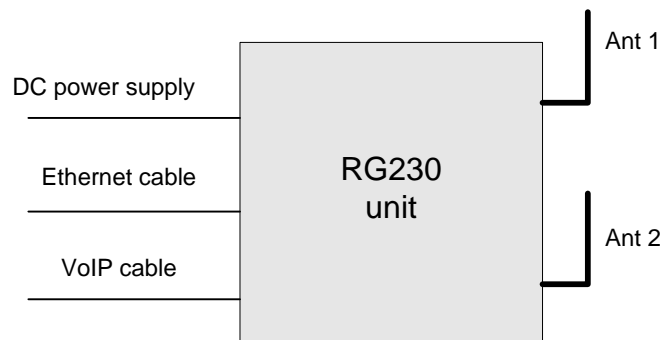
The  $1(\text{mW}/\text{cm}^2)$  limit can be calculated from the above based on the following data:

Pt- the transmitted power which is equal to the output power 26 dBm plus external antenna gain 5 dBi. The maximum EIRP = 31 dBm = 1258.9 mW

Minimum allowed distance from antenna were FCC RF exposure limit may not be exceeded

$r = \text{SQRT}(1258.9/4\pi) = 10 \text{ cm}$ .

#### 4.2 EUT test configuration



**Fig. 1 EUT block diagram.**

**Test report No:** 8912338266**Page 6 of 23 Pages****Title:** WiMAX 802.16e Self-Install Residential Gateway**Model:** RG230**5. Test results****5.1 Transmitter characteristics****5.1.1 Peak EIRP power test § 25.254 (b)(2).**

Operating Frequencies Range      2485 – 2495 MHz  
 Ambient Temperature    23<sup>0</sup> C      Relative Humidity      52%      Air Pressure      1009 hPa

**EIRP power density test results.**

Frequency, MHz	EIRP density dBm/1.25 MHz	Limit density dBW/dBm/1.25 MHz	Margin dB	Reference to plot number
2490	24.4	1/31	6.6	#4

Frequency, MHz	EIRP density dBm/4 kHz	Limit density dBW/dBm/4 kHz	Margin dB	Reference to plot number
2490	-7.3	-23.9/6.1	13.4	#5

**LIMIT**

The EIRP density shall not exceed 1 dBW (31 dBm) in 1.25 MHz and -23.9 dBW (6.1 dBm) in 4 kHz EBW.

**TEST PROCEDURE**

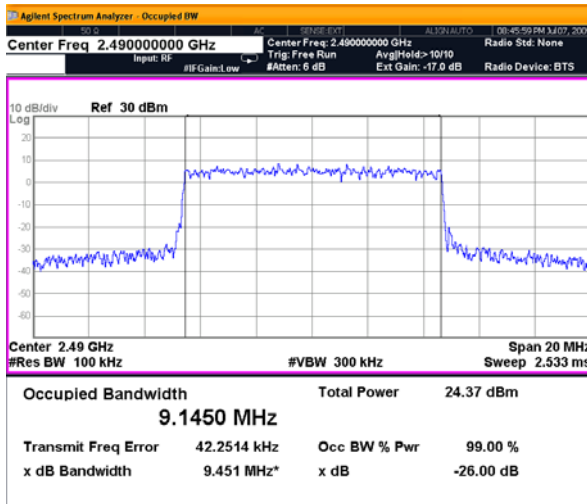
The measurements were performed in normal (transmitting) mode at 2490 MHz carrier frequency under maximum data transfer bit rate. The EUT RF output was connected to the Spectrum Analyzer through appropriate attenuator and accounted with cable loss in SA settings. Calculation of EIRP power density with external antenna was performed as follows:  
 Plot result + 5 dBi antenna gain.

**TEST EQUIPMENT USED:**

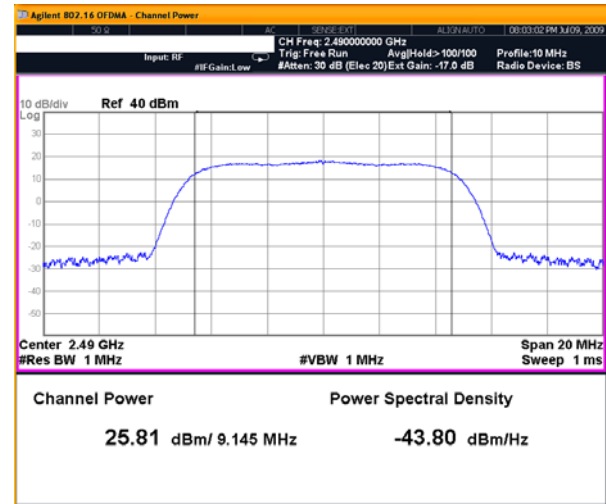
1	3	4	8			
---	---	---	---	--	--	--



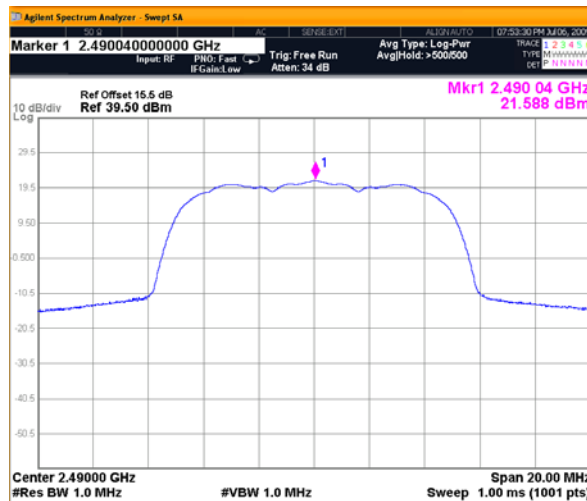
Output power test results.



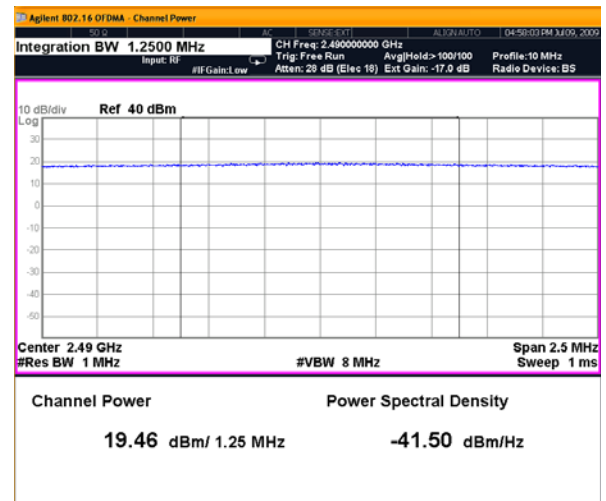
Plot # 1. 99% Emission bandwidth



Plot # 2. Maximum power in EBW



Plot # 3. Peak of emission envelope



Plot # 4. Output power in 1.25 MHz EBW

External attenuator and cable loss – 17 dB.



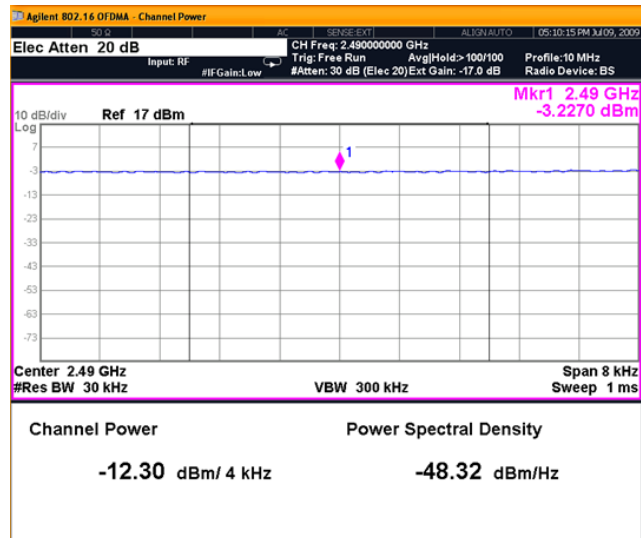


**Test report No: 8912338266**

**Page 8 of 23 Pages**

**Title: WiMAX 802.16e Self-Install Residential Gateway**

**Model: RG230**



Plot # 5. Output power in 4 kHz EBW.

**Test report No: 8912338266****Page 9 of 23 Pages****Title: WiMAX 802.16e Self-Install Residential Gateway****Model: RG230****5.1.2 Out of channel interference emission § 25.254(b) (3)**

Operating Frequencies Range 2485 – 2495 MHz  
 Ambient Temperature 23<sup>0</sup> C Relative Humidity 49% Air Pressure 1008 hPa

**Test result of out-of-channel interference at antenna terminal.**

Frequency MHz	Peak level dBm	Interference limit dBm	Margin, dB	Reference to plot number
2485	-42.5	-32.1	10.4	#6
2495	-40.6	-32.1	8.5	#6

**Radiated emissions test result.**

Frequency MHz	Peak level dB(μV/m)/dBm	Interference limit dBm	Margin, dB	Reference to plot number
2484.7	57.1/-38.1	-27.1	11.0	#8
2495.0	60.4/-34.8	-27.1	7.7	#10

**LIMIT**

Out-of-channel unacceptable interference shall not exceed -57.1 dBW (-27.1 dBm)/30 kHz.  
 For used antenna with 5 dBi gain conducted emission calculated limit is -32.1 dBm/30 kHz.

**TEST PROCEDURE**

The measurements were performed in normal (transmitting) mode at 2490 MHz carrier frequency under maximum data transfer bit rate. The EUT RF output was connected to the Spectrum Analyzer through appropriate attenuator and accounted with cable loss in SA settings. Radiated emission test was performed according to ANSI/TIA-603-C-2004 section 2.2.12 test method. Transmitter was operated at 2490 MHz carrier frequency. Investigation of transmitter spurious emissions was performed. EUT was replaced by generator and substitution antenna. Level calculated from generator output level, substitution antenna gain and connected cable loss was compared with the limit.

**TEST EQUIPMENT USED:**

1	2	3	4	5	6	11
---	---	---	---	---	---	----

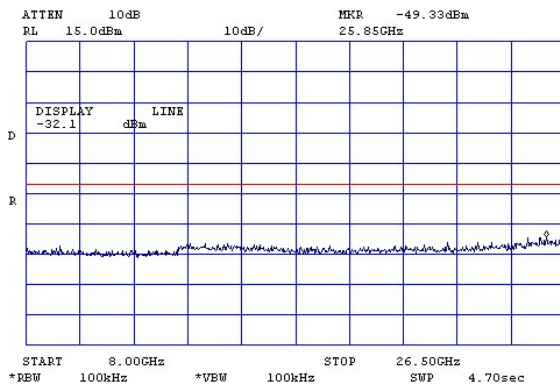
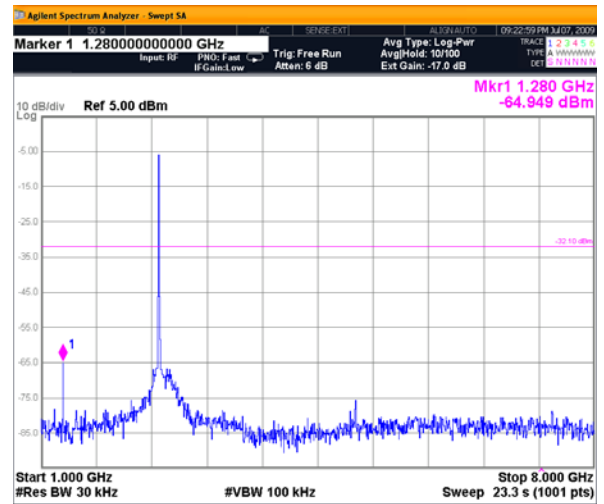
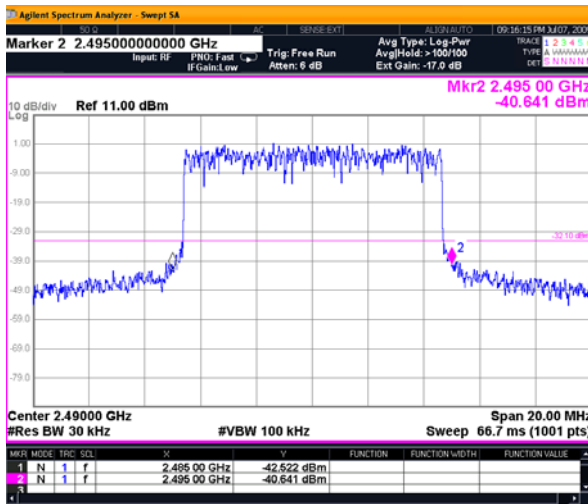


Test report No: 8912338266

Page 10 of 23 Pages

Title: WiMAX 802.16e Self-Install Residential Gateway

Model: RG230



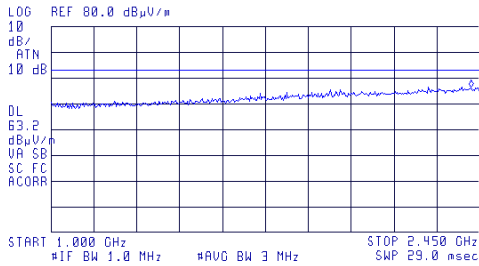
Plot # 6. Out-of-channel interference at antenna terminal.

External attenuator and cable loss = 17 dB.



11:04:15 JUL 08, 2009  
ALVARION EUT-R0230

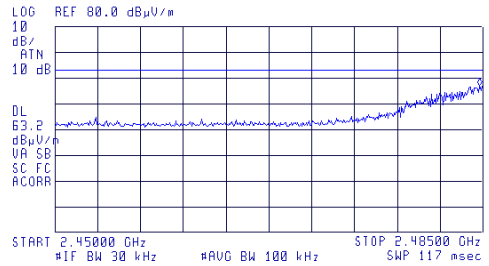
ACTV DET: PEAK  
MERS DET: PEAK OP AVG  
MKR 2.421 GHz  
56.25 dBμV/m



Plot # 7

11:08:10 JUL 08, 2009  
ALVARION EUT-R0230

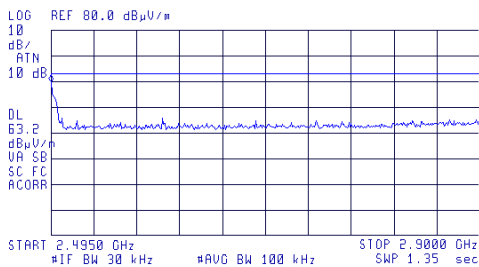
ACTV DET: PEAK  
MERS DET: PEAK OP AVG  
MKR 2.48474 GHz  
57.15 dBμV/m



Plot # 8

11:10:41 JUL 08, 2009  
ALVARION EUT-R0230

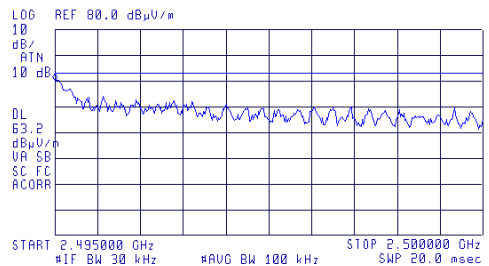
ACTV DET: PEAK  
MERS DET: PEAK OP AVG  
MKR 2.4950 GHz  
59.79 dBμV/m



Plot # 9

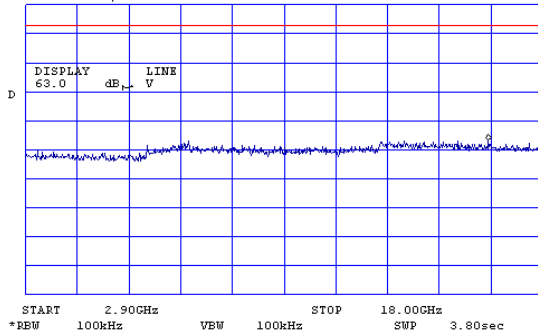
11:12:33 JUL 08, 2009  
ALVARION EUT-R0230

ACTV DET: PEAK  
MERS DET: PEAK OP AVG  
MKR 2.495000 GHz  
60.45 dBμV/m



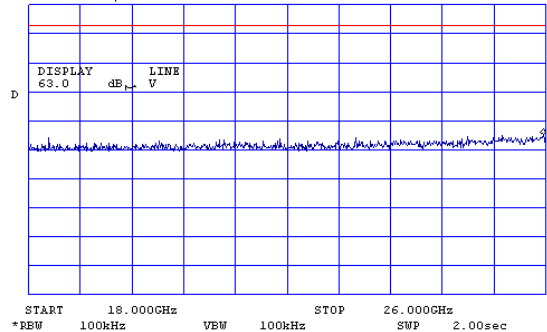
Plot # 10

\*ATTEN 0dB MKR 23.33dBμ V  
RL 70.0dBμ V 10dB/ 16.41GHz



Plot # 11

\*ATTEN 0dB MKR 25.17dBμ V  
RL 70.0dBμ V 10dB/ 25.960GHz



Plot # 12

**Test report No:** 8912338266**Page 12 of 23 Pages****Title:** WiMAX 802.16e Self-Install Residential Gateway**Model:** RG230**5.1.3 EIRP density test in 1559 - 1610 MHz band § FCC 08-254 (35)**

Operating Frequencies Range 2485 – 2495 MHz  
 Ambient Temperature 23<sup>o</sup> C Relative Humidity 49% Air Pressure 1009 hPa

**Power density test results at antenna terminal.**

Frequency MHz	Wide band EIRP dBm	Narrowband EIRP, dBµV/m/dBm	EIRP density limit dBm	Margin, dB	Reference to plot
1587.1	-65.9	-	-60.0	5.9	#13
1587.1	-	-96.0	-70.0	20.0	#14

**EIRP density test result radiated.**

Frequency MHz	Wide band EIRP, dBµV/m/dBm	Narrowband EIRP, dBµV/m/dBm	EIRP density limit dBm	Margin, dB	Reference to plot
1578.6	35.5/ -70.3	-	-60.0	10.3	#15
1607.8	-	17.2/-88.0	-70.0	18.0	#16

**LIMIT**

The emissions from ATC end-user stations operating in the 2483.5 up to 2495 MHz band will comply with an EIRP density limit for wideband emissions of -90dBW/MHz and an EIRP density limit of -100 dBW/kHz for narrowband emissions in the 1559-1610MHz band. The used antenna gain below 2200 MHz is less than 0 dBi. In these case results of power density at antenna terminal is equivalent to EIRP density. Calculated limit for broadband emission is -60 dBm/MHz and -70 dBm/kHz for narrow band emission.

**TEST PROCEDURE**

Test was performed conducted at antenna terminal and radiated by substitution method. The EUT RF output was connected to the Spectrum Analyzer through attenuator and accounted with cable loss in SA settings.

Radiated emission test was performed at 1m test distance according to ANSI/TIA-603-C-2004 section 2.2.12 test method. Transmitter was operated at 2490 MHz carrier frequency. Investigation of transmitter spurious emissions was performed. EUT was replaced by generator and substitution antenna. Level calculated from generator output level, substitution antenna gain and connected cable loss was compared with the limit.

**TEST EQUIPMENT USED:**

1	3	4	5	9	11	13	
---	---	---	---	---	----	----	--



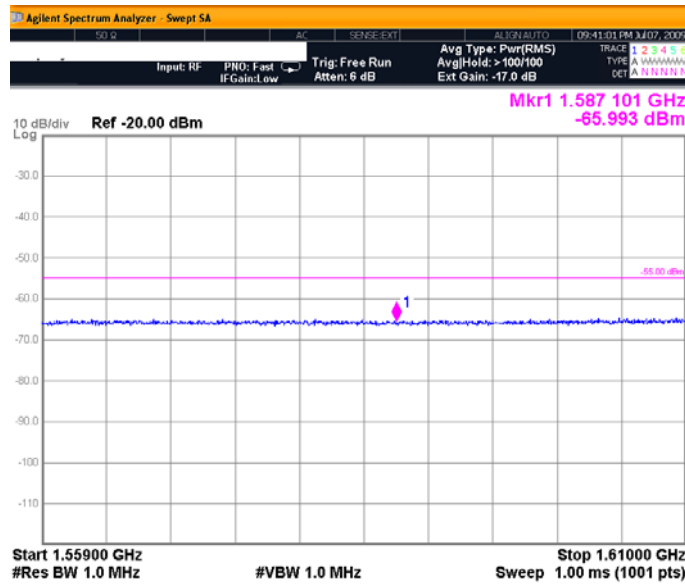
Test report No: 8912338266

Page 13 of 23 Pages

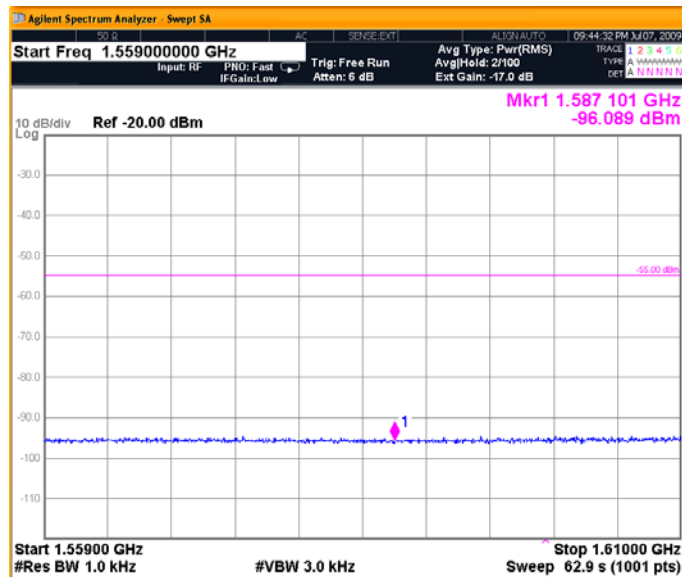
Title: WiMAX 802.16e Self-Install Residential Gateway

Model: RG230

Power density test results at antenna terminal.



Plot # 13. Wide band power density.

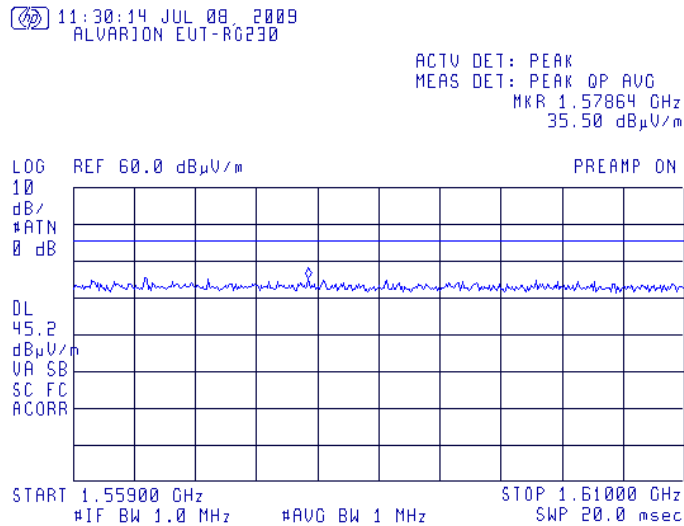


Plot # 14. Narrow band power density.

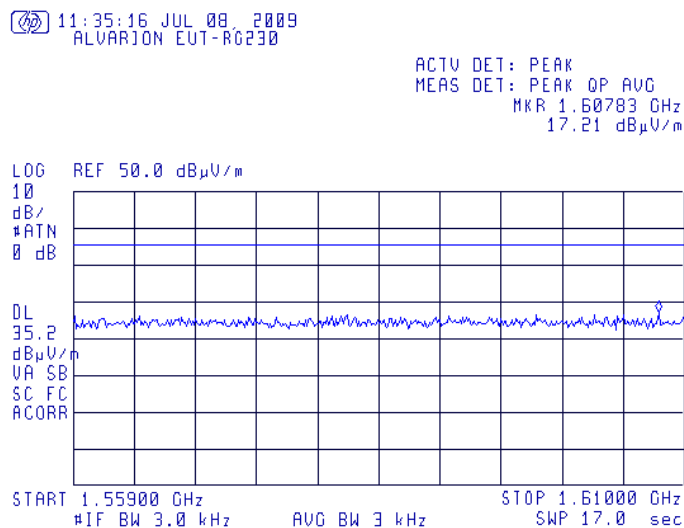
External attenuation added to SA settings is 17 dB.



Power density test results radiated.



Plot # 15. Wide band power density.



Plot # 16. Narrow band power density.



**Test report No: 8912338266**

**Page 15 of 23 Pages**

**Title: WiMAX 802.16e Self-Install Residential Gateway**

**Model: RG230**

**5.1.4 Unacceptable interference in 1610.6 – 1613.8 MHz band § 25.254(b) (1)**

Operating Frequencies Range      2485 – 2495 MHz  
Ambient Temperature    23<sup>0</sup> C      Relative Humidity      49%      Air Pressure      1009 hPa

**REQUIREMENT**

The radio astronomy service shall be protected from emissions of ATC unacceptable interference in the 1610.6 - 1613.8 MHz band.

**TEST PROCEDURE**

Test was performed conducted at antenna terminal and radiated by substitution method. The EUT RF output was connected to the Spectrum Analyzer through attenuator and accounted with cable loss in SA settings. Radiated emission test was performed at 1m test distance according to ANSI/TIA-603-C-2004 section 2.2.12 test method. Transmitter was operated at 2490 MHz carrier frequency. Investigation of transmitter spurious emissions was performed. EUT was replaced by generator and substitution antenna. Level calculated from generator output level, substitution antenna gain and connected cable loss was compared with the limit.

**TEST SUMMARY**

No emissions from EUT were found above SA noise floor that is at least -65 dBm/MHz for broadband emission and -80 dBm/kHz for narrow band emission.

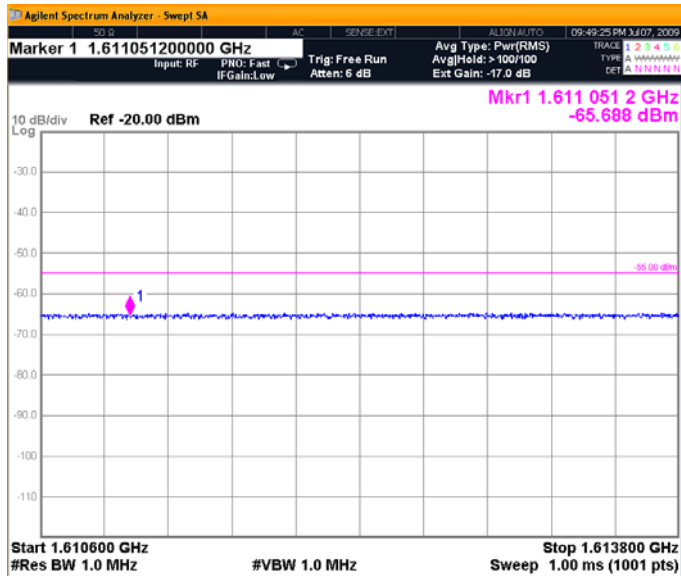
**TEST EQUIPMENT USED:**

1	3	4	5	8	9	11	13
---	---	---	---	---	---	----	----

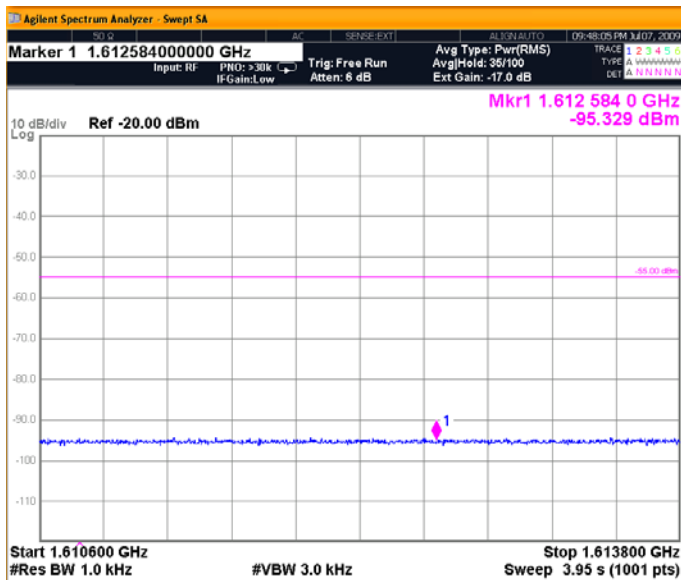




Power density test results at antenna terminal.



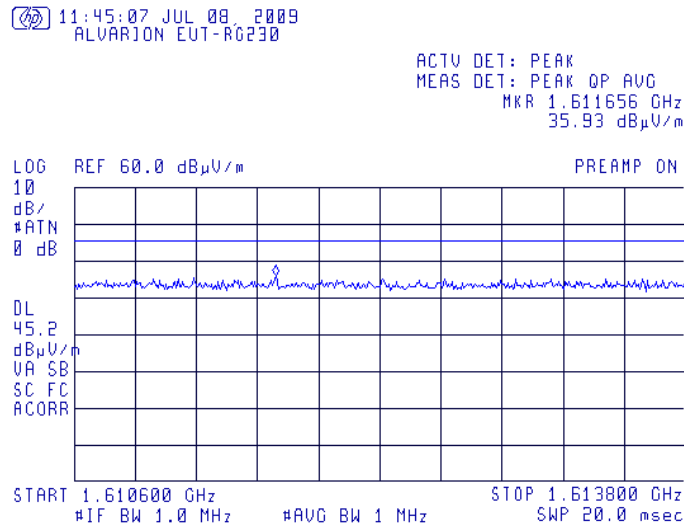
Plot # 17. Wide band power density



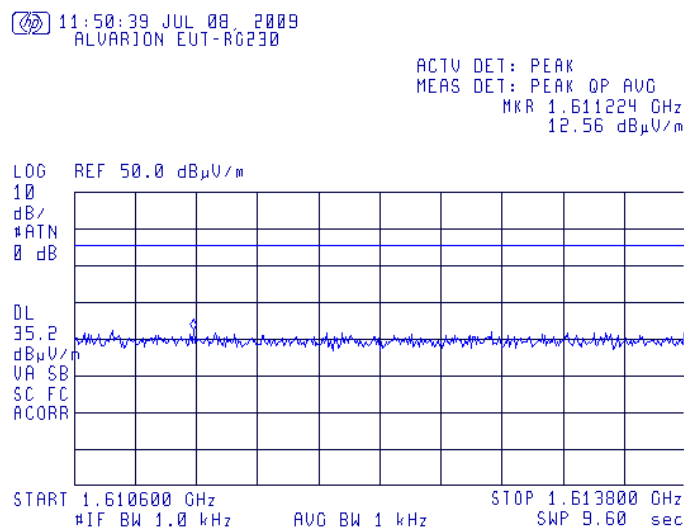
Plot # 18. Narrow band power density.



EIRP density test results radiated.



Plot # 19. Wide band power density.



Plot # 20. Narrow band power density.

**Test report No:** 8912338266**Page 18 of 23 Pages****Title:** WiMAX 802.16e Self-Install Residential Gateway**Model:** RG230**APPENDIX A      Photographs****Photo 1. Conducted measurements. Test setup.****Photo 2. Investigation setup in anechoic chamber.**

**Test report No: 8912338266****Page 19 of 23 Pages****Title: WiMAX 802.16e Self-Install Residential Gateway****Model: RG230****APPENDIX B Test equipment used****Test equipment used**

No	Description	Manufacturer information			Due Calibration date
		Name	Model No	Serial No	
1	Spectrum analyzer 20 Hz - 13.6 GHz	Ajilent	MXA 9020A	MY48010501	June 2010
2	Spectrum Analyzer 9 kHz - 26.5 GHz	Adjilent	4407B	US40241729	June 2010
3	Attenuators set (3,6,10,20 dB) DC - 18 GHz	M/A-COM	2082	1650	June 2010
4	Cable RF 1m	Huber-Suhner	Sucoflex 104	21324/4PE	Aug 2009
5	Double Ridged Guide Antenna 1 – 18 GHz	EMCO	3115	5802	Aug 2009
6	Broadband Horn antenna 15 – 40 GHz	Schwarzbeck Mess-Electronik	BBHA 9170	9170-341	Aug 2009
7	Antenna Biconilog 30 – 2000 MHz	Schaffner-Chase	CBL6112B	S/N 23181	Aug 2009
8	Power Divider 2 – 8 GHz	Vicomm	DIV- SMA02T001	N/A	July 2010
9	Low pass filter DC – 1700 MHz	Mini -Circuit	VLF - 1700	15542	April 2010
10	Power splitter 1.7 – 9 GHz	Mini-Circuits	ZN2PD-9G	0142	June 2010
11	EMI Receiver 9 kHz-6.5 GHz	HP	8546A+85460A	SII 4068	April 2010
12	Attenuator 50 Ohm 3 dB DC-8.5 GHz	Aeroflex/ Weinshel	33-3-34	BV9910	April 2010
13	Cable RF 4 m	Huber-Suhner	Sucoflex 104PE	21328/4PE	Dec 2009

**Test report No: 8912338266****Page 20 of 23 Pages****Title: WiMAX 802.16e Self-Install Residential Gateway****Model: RG230****Cable Loss (10m cable + Mast)**

Point	Frequency (MHz)	Cable Loss (dB)	Point	Frequency (MHz)	Cable Loss (dB)
1	30	0.53	21	1000	3.68
2	50	0.75	22	1100	3.82
3	100	1.08	23	1200	4.07
4	150	1.39	24	1300	4.24
5	200	1.61	25	1400	4.43
6	250	1.752	26	1500	4.6
7	300	2.00	27	1600	4.7
8	350	2.15	28	1700	4.85
9	400	2.26	29	1800	4.98
10	450	2.383	30	1900	5.19
11	500	2.52	31	2000	5.34
12	550	2.606	32	2100	5.51
13	600	2.75	33	2200	5.69
14	650	2.856	34	2300	5.89
15	700	3.06	35	2400	6.07
16	750	3.201	36	2500	6.22
17	800	3.27	37	2600	6.28
18	850	3.38	38	2700	6.41
19	900	3.46	39	2800	6.53
20	950	3.55	40	2900	6.84



**Test report No: 8912338266**

**Page 21 of 23 Pages**

**Title: WiMAX 802.16e Self-Install Residential Gateway**

**Model: RG230**

**Biconilog Antenna, Model Number: CBL-6112D, S/N: 23181.**

No.	f / MHz)	AF / dB/m	f / MHz)	AF / dB/m	f / MHz)	AF / dB/m	f / MHz)	AF / dB/m
1	30	17.90	170	9.40	530	17.70	1040	22.20
2	32	16.70	175	9.00	540	18.25	1060	22.50
3	34	15.55	180	8.50	550	18.60	1080	22.50
4	36	14.35	185	8.45	560	14.45	1100	22.40
5	38	13.30	190	8.60	570	18.40	1120	22.60
6	40	12.20	195	8.85	580	18.50	1140	22.45
7	42	11.05	200	8.95	590	18.60	1160	22.50
8	44	9.95	205	8.80	600	18.60	1180	22.40
9	46	8.90	210	8.50	610	18.80	1200	22.80
10	48	8.05	215	8.20	620	18.99	1220	22.95
11	50	7.30	220	8.50	630	19.05	1240	23.10
12	52	6.80	225	9.00	640	19.23	1260	23.40
13	54	6.45	230	9.65	650	19.10	1280	23.35
14	56	6.00	235	10.30	660	19.13	1300	23.62
15	58	5.70	240	11.00	670	19.04	1320	23.64
16	60	5.45	245	11.60	680	19.00	1340	23.86
17	62	5.30	250	12.00	690	19.17	1360	23.95
18	64	5.20	255	12.45	700	19.28	1380	23.90
19	66	5.30	260	12.85	710	19.25	1400	24.45
20	68	5.30	265	12.50	720	19.45	1420	24.74
21	70	5.35	270	12.45	730	19.75	1440	24.93
22	72	5.50	275	12.40	740	19.95	1460	25.03
23	74	5.80	280	12.55	750	20.07	1480	25.45
24	76	6.00	285	12.65	760	19.85	1500	25.30
25	78	6.60	290	12.75	770	19.80	1520	25.25
26	80	6.70	295	12.95	780	19.85	1540	25.36
27	82	7.15	300	13.00	790	19.95	1560	25.58
28	84	7.60	310	13.35	800	20.05	1580	25.50
29	86	8.10	320	13.75	810	20.10	1600	25.65
30	88	8.50	330	13.85	820	20.35	1620	25.60
31	90	8.90	340	14.10	830	20.40	1640	25.70
32	92	9.20	350	14.50	840	20.35	1660	25.83
33	94	9.75	360	14.70	850	20.46	1680	25.97
34	96	9.95	370	14.90	860	20.39	1700	26.10
35	98	10.20	380	15.10	870	20.29	1720	26.25
36	100	10.50	390	15.45	880	20.24	1740	26.04
37	105	11.25	400	16.00	890	20.35	1760	26.14
38	110	11.70	410	16.40	900	20.55	1780	26.20
39	115	11.70	420	16.70	910	20.45	1800	26.40
40	120	11.80	430	16.35	920	20.60	1820	26.64
41	125	11.80	440	16.30	930	20.60	1840	26.86
42	130	11.70	450	16.30	940	20.66	1860	27.12
43	135	11.35	460	16.70	950	20.88	1880	27.00
44	140	10.95	470	17.05	960	21.11	1900	27.25
45	145	10.35	480	17.20	970	20.93	1920	27.36
46	150	10.05	490	17.30	980	21.03	1940	27.68
47	155	9.70	500	17.40	990	21.05	1960	27.10
48	160	9.70	510	17.50	1000	21.10	1980	27.06
49	165	9.45	520	17.60	1020	21.40	2000	27.25

**Test report No: 8912338266****Page 22 of 23 Pages****Title: WiMAX 802.16e Self-Install Residential Gateway****Model: RG230****Antenna Factor****Double Ridged Guide Antenna mfr EMCO model 3115 1m calibration**

Point	Frequency (MHz)	Antenna Factor (dB/m)
1	1000	23.9
2	2000	28.3
3	3000	31.0
4	4000	33.1
5	4500	32.5
6	5000	32.4
7	6000	53.7
8	6500	35.6
9	7000	36.4
10	7500	36.9
11	8000	37.0
12	8500	38.0
13	9000	38.6
14	9500	38.4
15	10000	38.4
16	10500	38.4
17	11000	38.9
18	11500	39.6
19	12000	39.4
20	12500	39.2
21	13000	40.3
22	13500	41.0
23	14000	41.2
24	14500	41.3
25	15000	40.0
26	15500	38.0
27	16000	38.1
28	16500	40.3
29	17000	42.2
30	17500	44.6
31	18000	46.2

**Cable Loss****Type: Sucoflex 104PE; Ser. No.21328/4PE; 4 m length**

Point	Frequency (GHz)	Cable Loss (dB)
1	0.0-1.0	1.7
2	1.0-3.5	3.2
3	3.5-5.5	4.0
4	5.5-7.5	4.7
5	7.5-9.5	5.3
6	9.5-10.5	5.6
7	10.5-12.5	6.2
8	12.5-14.5	6.8
9	14.5-16.5	7.5
10	16.5-18.0	8.1

**Test report No: 8912338266****Page 23 of 23 Pages****Title: WiMAX 802.16e Self-Install Residential Gateway****Model: RG230**

## APPENDIX C General information

### Abbreviations and acronyms

The following abbreviations and acronyms are applicable to this test report:

AC	alternating current
cm	centimeter
dB	decibel
dBm	decibel referred to one milliwatt
dB( $\mu$ V)	decibel referred to one microvolt
dB( $\mu$ V/m)	decibel referred to one microvolt per meter
EMC	electromagnetic compatibility
EUT	equipment under test
GHz	gigahertz
H	height
Hz	hertz
kHz	kilohertz
L	length
LNA	low noise amplifier
m	meter
Mbps	megabit per second
MHz	megahertz
NA	not applicable
OFDM	Orthogonal Frequency Division Multiple Access
PRBS	pseudo random binary sequence
QP	quasi-peak
RF	radio frequency
RE	radiated emission
rms	root mean square
W	Watt

### Specification references

47 CFR part 15: 2008	Radio Frequency Devices
ANSI C63.4: 2003	American National Standard for Method of Measurements of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz
ANSI/TIA-603-C: 2004	Land Mobile FM or PM Communication Equipment Measurement and Performance.