To Alvarion Ltd. ***3 August 2009***

Additional test results to Test report No 8912338266

Subject:

EIRP power density test on WiMAX 802.16e Self-Install Residential Gateway

Model: RG230.

Test was performed 3 August 2009 in SII EMC Laboratory

Test performed by: Mr. Michael Feldman test technician

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

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Title: Test on WiMAX 802.16e Self-Instal Residential Gateway
Model: RG230

Test result

Peak EIRP power test § 25.254 (b)(2).

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

Frequency MHz	Total EIRP dBW/dBm	Limit total EIRP dBW/dBm	Margin dB
2490	0.79/30.79	10/40	9.21

EIRP power density test radiated.

Frequency MHz	EIRP density dBm/1.25 MHz	Limit density dBW/dBm/1.25 MHz	Margin dB	Reference to plot number
2490	23.9	1/31	7.1	#1

Frequency MHz	EIRP density dBm/4 kHz	Limit density dBW/dBm/4 kHz	Margin dB	Reference to plot number
2490	-6.95	-23.9/6.1	13.0	#2

LIMIT

Maximum EIRP power - 10 dBW (40 dBm).
The EIRP power 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 radiated in normal (transmitting) mode at 2490 MHz carrier frequency under maximum data transfer bit rate.
Radiated measurements were performed at 3 m test distance according to ANSI/TIA-603-C-2004 procedure and test setup. Reference antenna was connected to signal generator and transmit 0 dBm output power. Received by measuring antenna signal was used for calibration path loss of setup and inserted to SA settings. Reference antenna was substitute by transmitter and recorded results noted in the table.

TEST EQUIPMENT USED:

1	3	4	5	8	12	13	14

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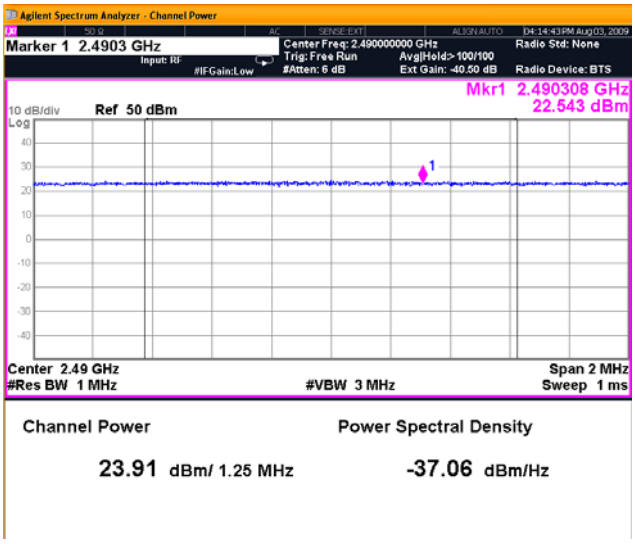
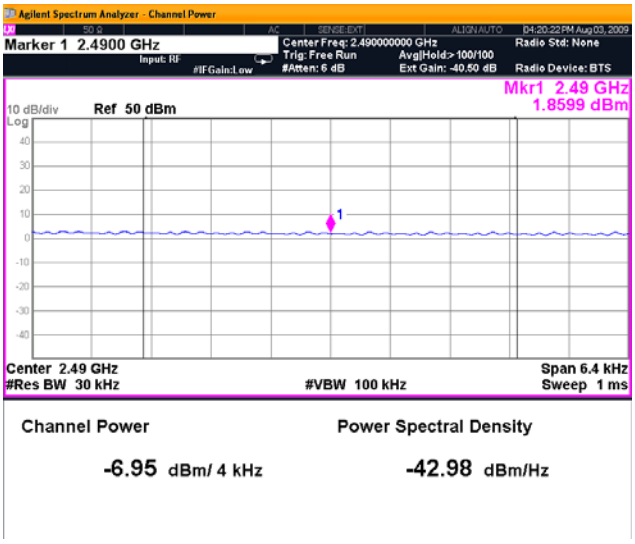
Radiated emission test.



Plot # 1. EIRP power density in 1.25 MHz EBW.



Plot # 2. EIRP power density in 4 kHz EBW.

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APPENDIX A Photographs

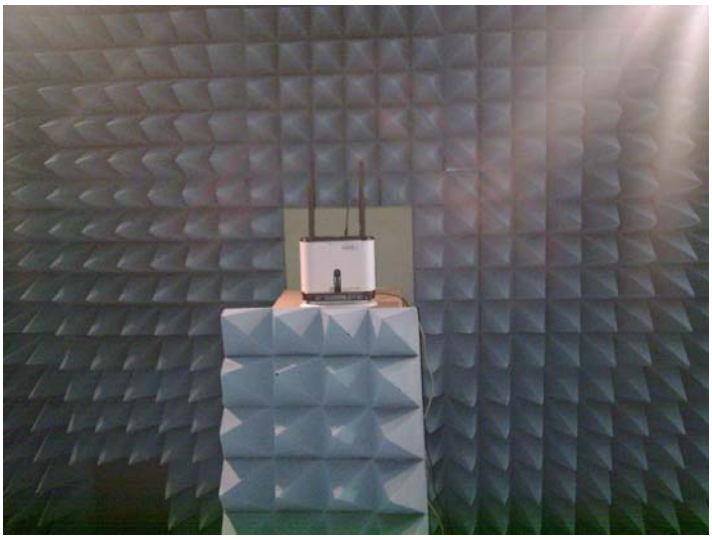

Photo 1. Radiated measurements. Test setup.

Photo 2. Radiated measurements. Test setup.

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	Adjilent	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 2010
5	Double Ridged Guide Antenna 1 – 18 GHz	EMCO	3115	5802	Aug 2010
6	Broadband Horn antenna 15 – 40 GHz	Schwarzbeck Mess-Electronik	BBHA 9170	9170-341	Aug 2010
7	Antenna Biconilog 30 – 2000 MHz	Schaffner-Chase	CBL6112B	S/N 23181	Aug 2010
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
14	MXG Vector Signal generator, 250 kHz – 6 GHz	Adjilent	N5182A	Y47071009	June 2010

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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