



**FCC CFR47 PART 27 SUBPART M  
CLASS II PERMISSIVE CHANGE**

**CERTIFICATION TEST REPORT**

**FOR**

**CDMA+ WIMAX + WIFI MOBILE HOT SPOT**

**MODEL NUMBER: AirCard W802S (OWL)**

**FCC ID: N7N-MHS802**

**REPORT NUMBER: 11U13729-1**

**ISSUE DATE: APRIL 14, 2011**

*Prepared for*

**SIERRA WIRELESS INC.  
2200 FARADAY AVENUE, SUITE 150  
CARLSBAD, CA 92008, U.S.A.**

*Prepared by*

**COMPLIANCE CERTIFICATION SERVICES (UL CCS)  
47173 BENICIA STREET  
FREMONT, CA 94538, U.S.A.  
TEL: (510) 771-1000  
FAX: (510) 661-0888**



**NVLAP LAB CODE 200065-0**

Revision History

<u>Rev.</u>	<u>Issue Date</u>	<u>Revisions</u>	<u>Revised By</u>
---	04/14/11	Initial Issue	T. Chan

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# 1. ATTESTATION OF TEST RESULTS

**COMPANY NAME:** SIERRA WIRELESS INC.  
2200 FARADAY AVENUE, SUITE 150  
CARLSBAD, CA 92008, U.S.A.

**EUT DESCRIPTION:** CDMA+ WIMAX + WIFI MOBILE HOT SPOT

**MODEL:** AirCard W802S

**SERIAL NUMBER:** FCC Unit #3

**DATE TESTED:** MARCH 28 – APRIL 11, 2011

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC PART 27 SUBPART M	PASS

Compliance Certification Services (UL CCS) tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL CCS based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

**Note:** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL CCS and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL CCS will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government.

Approved & Released For UL CCS By:

Tested By:



THU CHAN  
ENGINEERING MANAGER  
UL CCS

CHIN PANG  
EMC ENGINEER  
UL CCS

## 2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with TIA/EIA 603C (2004), FCC CFR 47 Part 2, FCC CFR 47 Part 27M.

## 3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 Benicia Street, Fremont, California, USA.

UL CCS is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at <http://www.ccsemc.com>.

## 4. CALIBRATION AND UNCERTAINTY

### 4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

### 4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

$$\begin{aligned} \text{Field Strength (dBuV/m)} &= \text{Measured Voltage (dBuV)} + \text{Antenna Factor (dB/m)} + \\ &\text{Cable Loss (dB)} - \text{Preamp Gain (dB)} \\ 36.5 \text{ dBuV} + 18.7 \text{ dB/m} + 0.6 \text{ dB} - 26.9 \text{ dB} &= 28.9 \text{ dBuV/m} \end{aligned}$$

### 4.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	UNCERTAINTY
Conducted Disturbance, 0.15 to 30 MHz	3.52 dB
Radiated Disturbance, 30 to 1000 MHz	4.94 dB

Uncertainty figures are valid to a confidence level of 95%.

## **5. EQUIPMENT UNDER TEST**

### **5.1. DESCRIPTION OF EUT**

The EUT is a CDMA + WiMax + WiFi mobile Hot Spot router

The WiMax radio module is manufactured by Sierra Wireless.

### **5.2. DESCRIPTION OF CLASS II PERMISSIVE CHANGE**

The major change filed under this application is adding an external desktop cradle with 6dBi peak gain antennas.

### **5.3. MAXIMUM RF CONDUCTED OUTPUT POWER**

The test measurement passed within  $\pm 0.5$ dBm of the original output power.

### **5.4. DESCRIPTION OF AVAILABLE ANTENNAS**

The radio utilizes 2 integral antennas for diversity, antenna 1 and antenna 2, with a maximum peak gain of 6dBi.

### **5.5. SOFTWARE AND FIRMWARE**

The test utility software used during testing was X350 VSG Beceem Diagnostic Control Panel Version 4.00.00.

### **5.6. WORST-CASE CONFIGURATION AND MODE**

The worst-case channel is determined as the channel with the highest output power.

To determine the worst case on 16QAM and QPSK on both 5MHz and 10MHz bandwidth, the EIRP were measured to find the highest power, the result is that both QPSK on 5MHz and 10MHz is considered to be the worst case.

## 5.7. DESCRIPTION OF TEST SETUP

### SUPPORT EQUIPMENT

PERIPHERAL SUPPORT EQUIPMENT LIST				
Description	Manufacturer	Model	Serial Number	FCC ID
LAPTOP	HP	Compaq 6515b	CNU82518TY	DoC
AC/DC Adapter	HP	PA-1900-08H2	CT:597920ALLUJOXZ	DoC
Desktop Cradle	Sierra Wireless	Nest #1	60C574B8	NA
AC Adapter	Sierra Wireless	SSW-2012	NA	DoC

### I/O CABLES (RF CONDUCTED TEST)

I/O CABLE LIST						
Cable No.	Port	# of Identic Ports	Connector Type	Cable Type	Cable Length	Remarks
1	DC	1	DC	Un-shielded	2m	NA
2	USB	1	EUT	Un-shielded	1m	NA
3	Antenna Port	1	Spectrum Analyzer	Un-shielded	0.2m	NA
4	RF In/Out	1	Antenna	Un-shielded	None	NA

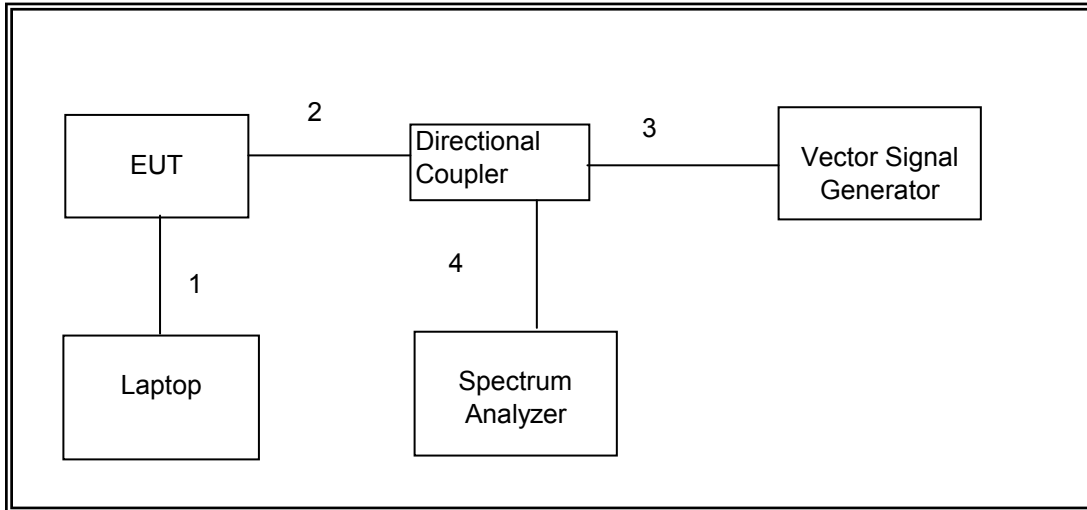
### I/O CABLES (RF RADIATED TEST)

I/O CABLE LIST						
Cable No.	Port	# of Identic Ports	Connector Type	Cable Type	Cable Length	Remarks
1	RF In/Out	1	Antenna	Un-shielded	None	NA

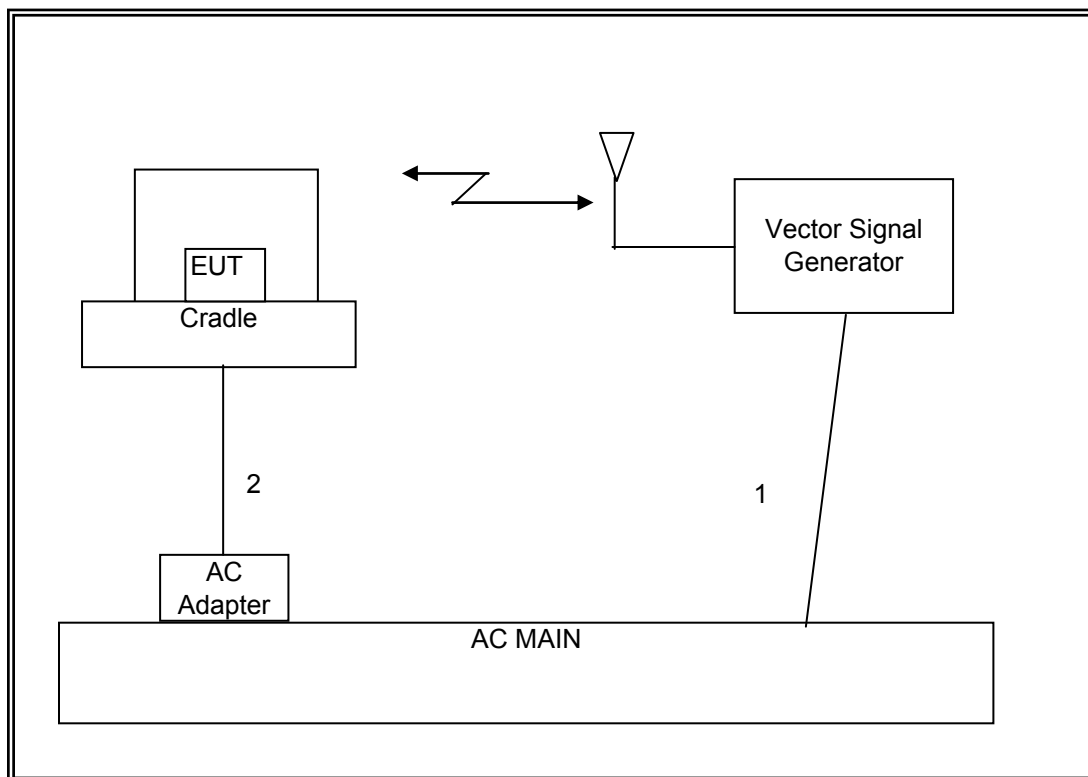
### TEST SETUP

The EUT is a standalone device. Test software exercised the radio card.

**SETUP DIAGRAM FOR RF CONDUCTED TESTS**



**SETUP DIAGRAM FOR RADIATED TESTS**





## 6. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

TEST EQUIPMENT LIST				
Description	Manufacturer	Model	Asset	Cal Due
Spectrum Analyzer, 26.5 GHz	Agilent / HP	E4440A	C01176	08/24/11
Preamplifier, 26.5 GHz	Agilent / HP	8449B	C01063	08/04/11
EMI Test Receiver, 30 MHz	R & S	ESHS 20	N02396	05/06/11
Antenna, Horn, 18 GHz	EMCO	3115	C00783	07/29/11
Preamplifier, 1300 MHz	Agilent / HP	8447D	C00778	07/06/11
Signal Generator, 20 GHz	Agilent / HP	83732B	C00774	07/14/12
Antenna, Horn, 18 GHz	EMCO	3115	C00945	06/29/11
Sleeve Dipole 2300-2600 MHz	ETS	3126-2450	C01158	08/05/11
Antenna, Bilog, 2 GHz	Sunol Sciences	JB1	C01011	07/14/11
Highpass Filter, 4.0 GHz	Micro-Tronics	HPM13351	N02706	CNR
LISN, 30 MHz	FCC	LISN-50/250-25-2	N02625	11/10/11
Vector Signal Generator	Agilent / HP	E4438C	None	09/28/11

## 7. RADIATED TEST RESULTS

### 7.1.1. RADIATED OUTPUT POWER (EIRP)

#### LIMITS

§2.1046 & §27.50 (h)(2) Mobile and other user stations. Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.

#### TEST PROCEDURE

ANSI / TIA / EIA 603 Clause 2.2.17& FCC 27

#### RESULTS

Measurement was made with integrated antennas with 6dBi peak gain.

Mode	Channel	Frequency (MHz)	EIRP (dBm)	EIRP (mW)
5MHz QPSK	Low	2498.5	27.70	588.84
	Middle	2593	27.81	603.95
	High	2687.5	27.45	555.90
10MHz QPSK	Low	2501	28.47	703.07
	Middle	2593	27.86	610.94
	High	2685	29.09	810.96

**OUTPUT POWER (EIRP)**

5MHz_QPSK								
High Frequency Fundamental Measurement Compliance Certification Services Chamber B								
<b>Company:</b>		SIERRA WIRELESS						
<b>Project #:</b>		11U13729						
<b>Date:</b>		2011-4-9						
<b>Test Engineer:</b>		Chin Pang						
<b>Configuration:</b>		EUT WITH EXTERNAL ANTENNA AND LAPTOP						
<b>Mode:</b>		TX, QPSK_5 MHz BW						
<b>Test Equipment:</b>								
Receiving: Horn T59, and Camber B SMA Cables								
Substitution: Horn T60 Substitution, 6ft SMA Cable (208947003) Warehouse								
f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch</b>								
2.4985	19.1	V	0.50	9.15	27.70	33.0	-5.3	
2.4985	5.9	H	0.50	9.15	14.54	33.0	-18.5	
<b>Mid Ch</b>								
2.5930	19.1	V	0.60	9.30	27.81	33.0	-5.2	
2.5930	5.8	H	0.60	9.30	14.50	33.0	-18.5	
<b>High Ch</b>								
2.6875	18.6	V	0.60	9.44	27.45	33.0	-5.6	
2.6875	5.6	H	0.60	9.44	14.44	33.0	-18.6	
Rev. 3.17.11								

10MHz\_QPSK

High Frequency Fundamental Measurement  
 Compliance Certification Services Chamber B

**Company:** SIERRA WIRELESS  
**Project #:** 11U13729  
**Date:** 2011-4-9  
**Test Engineer:** Chin Pang  
**Configuration:** EUT WITH EXTERNAL ANTENNAL AND LAPTOP  
**Mode:** TX, QPSK\_10 MHz BW

**Test Equipment:**

Receiving: Horn T59, and Camber B SMA Cables  
 Substitution: Horn T60 Substitution, 6ft SMA Cable (208947003) Warehouse

f GHz	SG reading (dBm)	Ant. Pol. (H/V)	Cable Loss (dB)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
<b>Low Ch</b>								
2.5010	19.8	V	0.50	9.16	28.47	33.0	-4.5	
2.5010	6.6	H	0.50	9.16	15.25	33.0	-17.8	
<b>Mid Ch</b>								
2.5930	19.2	V	0.60	9.30	27.86	33.0	-5.1	
2.5930	6.1	H	0.60	9.30	14.80	33.0	-18.2	
<b>High Ch</b>								
2.6850	20.3	V	0.60	9.44	29.09	33.0	-3.9	
2.6850	6.4	H	0.60	9.44	15.27	33.0	-17.7	

Rev. 3.17.11

### 7.1.2. FIELD STRENGTH OF SPURIOUS RADIATION

**LIMIT**

§2.1053

§27.53 (m)(4) For mobile digital stations, the attenuation factor shall be not less than 43 + 10 log (P) dB at the channel edge and 55 + 10 log (P) dB at 5.5 megahertz from the channel edges.

**TEST PROCEDURE**

ANSI / TIA / EIA 603 Clause 3.2.12 & FCC 27

**RESULTS**

**Below 1GHz at 5MHz Bandwidth (Worst Case)**

Compliance Certification Services 30 - 1000MHz Substitution Measurement									
Company:		SIERRA WIRELESS							
Project #:		11U13729							
Date:		2011-3-27							
Test Engineer:		MENGISTU MEKURIA							
Configuration:		EUT WITH EXTERNAL ANTENNAL AND LAPTOP							
Mode:		TX, QPSK_5 MHz BW (WORST CASE)							
f MHz	SA reading (dBm)	Ant. Pol. (H/V)	SG reading (dBm)	Cable Loss (dB)	Antenn Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
95.00	-66.3	H	-76.9	0.5	-2.15	-79.5	-25.0	-54.5	
180.00	-67.5	H	-75.8	0.5	-2.15	-78.5	-25.0	-53.5	
267.60	-68.0	H	-74.6	0.5	-2.15	-77.3	-25.0	-52.3	
299.70	-70.6	H	-75.3	0.5	-2.15	-78.0	-25.0	-53.0	
399.60	-70.2	H	-74.7	0.5	-2.15	-77.4	-25.0	-52.4	
779.80	-74.5	H	-71.8	0.5	-2.15	-74.5	-25.0	-49.5	
41.60	-59.8	V	-42.5	0.5	-2.15	-45.1	-25.0	-20.1	
78.50	-53.6	V	-53.3	0.5	-2.15	-55.9	-25.0	-30.9	
92.10	-57.4	V	-66.0	0.5	-2.15	-68.7	-25.0	-43.7	
176.50	-61.2	V	-66.1	0.5	-2.15	-68.7	-25.0	-43.7	
267.60	-71.4	V	-76.6	0.5	-2.15	-79.2	-25.0	-54.2	
399.60	-71.4	V	-73.4	0.5	-2.15	-76.1	-25.0	-51.1	

**Below 1GHz at 10MHz Bandwidth (Worst Case)**

Compliance Certification Services 30 - 1000MHz Substitution Measurement									
Company:		SIERRA WIRELESS							
Project #:		11U13729							
Date:		2011-3-26							
Test Engineer:		MENGISTU MEKURIA							
Configuration:		EUT WITH EXTERNAL ANTENNAL AND LAPTOP							
Mode:		TX, QPSK_10 MHz BW							
f MHz	SA reading (dBm)	Ant. Pol. (H/V)	SG reading (dBm)	Cable Loss (dB)	Antenn Gain (dBi)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
93.00	-69.0	H	-79.7	0.5	-2.15	-82.4	-25.0	-57.4	
267.60	-66.8	H	-73.4	0.5	-2.15	-76.0	-25.0	-51.0	
399.60	-71.6	H	-76.1	0.5	-2.15	-78.8	-25.0	-53.8	
419.90	-72.4	H	-76.7	0.5	-2.15	-79.4	-25.0	-54.4	
40.70	-58.6	H	-35.5	0.5	-2.15	-38.1	-25.0	-13.1	
77.50	-55.7	H	-55.9	0.5	-2.15	-58.5	-25.0	-33.5	
93.00	-57.4	V	-65.8	0.5	-2.15	-68.5	-25.0	-43.5	
160.00	-63.9	V	-67.6	0.5	-2.15	-70.2	-25.0	-45.2	
180.40	-65.5	V	-70.4	0.5	-2.15	-73.0	-25.0	-48.0	
255.00	-71.3	V	-77.0	0.5	-2.15	-79.7	-25.0	-54.7	
Rev. 03.03.09									

**Above 1GHz at 5MHz Bandwidth (Worst Case)**

5MHz_QPSK											
High Frequency Substitution Measurement Compliance Certification Services											
<b>Company:</b>		SIERRA WIRELESS									
<b>Project #:</b>		11U13729									
<b>Date:</b>		2011-4-7									
<b>Test Engineer:</b>		Chin Pang									
<b>Configuration:</b>		EUT WITH EXTERNAL ANTENNAL AND LAPTOP									
<b>Mode:</b>		TX, QPSK_5 MHz BW									
f GHz	SA reading (dBm)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBi)	Gain (dBd)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes	
<b>Low Channel (2498.5 MHz)</b>											
4.997	-2.7	V	-45.3	1.5	10.4	8.2	-36.5	-25.0	-11.5		
7.496	-6.6	V	-51.1	1.9	12.4	10.3	-40.5	-25.0	-15.5		
9.994	-1.5	V	-47.2	2.2	13.5	11.3	-35.9	-25.0	-10.9		
4.997	2.6	H	-40.0	1.5	10.4	8.2	-31.2	-25.0	-6.2		
7.496	-3.7	H	-48.2	1.9	12.4	10.3	-37.6	-25.0	-12.6		
9.994	-2.6	H	-48.3	2.2	13.5	11.3	-37.0	-25.0	-12.0		
<b>Mid Channel (2593 MHz)</b>											
5.186	-6.8	V	-49.4	1.6	10.5	8.4	-40.5	-25.0	-15.5		
7.779	2.3	V	-42.4	1.9	12.7	10.5	-31.7	-25.0	-6.7		
10.372	-3.5	V	-49.1	2.2	13.6	11.5	-37.7	-25.0	-12.7		
5.186	-6.3	H	-48.9	1.6	10.5	8.4	-40.0	-25.0	-15.0		
7.779	7.1	H	-37.6	1.9	12.7	10.5	-26.9	-25.0	-1.9		
10.372	-3.7	H	-49.3	2.2	13.6	11.5	-37.9	-25.0	-12.9		
<b>Hi Channel (2687.5 MHz)</b>											
5.375	1.5	V	-41.2	1.6	10.6	8.5	-32.2	-25.0	-7.2		
8.063	-4.6	V	-49.6	1.9	12.9	10.8	-38.6	-25.0	-13.6		
10.750	4.8	V	-40.7	2.3	13.8	11.6	-29.2	-25.0	-4.2		
5.375	4.0	H	-38.7	1.6	10.6	8.5	-29.7	-25.0	-4.7		
8.063	-3.0	H	-48.0	1.9	12.9	10.8	-37.0	-25.0	-12.0		
10.750	-1.6	H	-47.1	2.3	13.8	11.6	-35.6	-25.0	-10.6		
Rev. 4.15.11											
<b>Note: No other emissions were detected above the system noise floor.</b>											

**Above 1GHz at 10MHz Bandwidth (Worst Case)**

10MHz_QPSK										
High Frequency Substitution Measurement Compliance Certification Services										
<b>Company:</b>		SIERRA WIRELESS								
<b>Project #:</b>		11U13729								
<b>Date:</b>		2011-4-7								
<b>Test Engineer:</b>		Chin Pang								
<b>Configuration:</b>		EUT WITH EXTERNAL ANTENNAL AND LAPTOP								
<b>Mode:</b>		TX, QPSK_10 MHz BW								
f GHz	SA reading (dBm)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBi)	Gain (dBd)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes
<b>Low Channel (2501 MHz)</b>										
5.002	-6.7	V	-49.7	1.5	10.7	8.6	-40.5	-25.0	-15.5	
7.503	-7.8	V	-52.5	1.9	12.6	10.5	-41.7	-25.0	-16.7	
10.004	-7.5	V	-53.0	2.2	13.4	11.2	-41.9	-25.0	-16.9	
5.002	3.5	H	-39.5	1.5	10.7	8.6	-30.3	-25.0	-5.3	
7.503	-4.7	H	-49.4	1.9	12.6	10.5	-38.6	-25.0	-13.6	
10.004	-6.8	H	-52.3	2.2	13.4	11.2	-41.2	-25.0	-16.2	
<b>Mid Channel (2593 MHz)</b>										
5.186	-6.4	V	-49.4	1.6	10.9	8.7	-40.1	-25.0	-15.1	
7.779	-6.3	V	-51.2	1.9	12.8	10.6	-40.3	-25.0	-15.3	
10.372	-6.6	V	-52.1	2.2	13.5	11.4	-40.8	-25.0	-15.8	
5.186	3.3	H	-39.7	1.6	10.9	8.7	-30.4	-25.0	-5.4	
7.779	-6.9	H	-51.8	1.9	12.8	10.6	-40.9	-25.0	-15.9	
10.372	-7.7	H	-53.2	2.2	13.5	11.4	-41.9	-25.0	-16.9	
<b>Hi Channel (2685 MHz)</b>										
5.370	-5.6	V	-48.8	1.6	11.1	8.9	-39.3	-25.0	-14.3	
8.055	-6.7	V	-51.7	1.9	12.9	10.8	-40.7	-25.0	-15.7	
10.740	-4.6	V	-50.0	2.3	13.7	11.5	-38.6	-25.0	-13.6	
5.370	3.6	H	-39.6	1.6	11.1	8.9	-30.1	-25.0	-5.1	
8.055	-7.8	H	-52.8	1.9	12.9	10.8	-41.8	-25.0	-16.8	
10.740	-4.2	H	-49.6	2.3	13.7	11.5	-38.2	-25.0	-13.2	
Rev. 4.15.11										
<b>Note: No other emissions were detected above the system noise floor.</b>										



## 8. MAXIMUM PERMISSIBLE EXPOSURE

### FCC RULES

§1.1310 The criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure to radio-frequency (RF) radiation as specified in §1.1307(b), except in the case of portable devices which shall be evaluated according to the provisions of §2.1093 of this chapter.

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3–3.0 .....	614	1.63	*(100)	6
3.0–30 .....	1842/f	4.89/f	*(900/f <sup>2</sup> )	6
30–300 .....	61.4	0.163	1.0	6
300–1500 .....	.....	.....	f/300	6
1500–100,000 .....	.....	.....	5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3–1.34 .....	614	1.63	*(100)	30
1.34–30 .....	824/f	2.19/f	*(180/f <sup>2</sup> )	30

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)—Continued

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
30–300 .....	27.5	0.073	0.2	30
300–1500 .....	.....	.....	f/1500	30
1500–100,000 .....	.....	.....	1.0	30

f = frequency in MHz

\* = Plane-wave equivalent power density

NOTE 1 TO TABLE 1: Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

NOTE 2 TO TABLE 1: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.

**EQUATIONS**

Power density is given by:

$$S = \text{EIRP} / (4 * \text{Pi} * \text{D}^2)$$

where

- S = Power density in W/m<sup>2</sup>
- EIRP = Equivalent Isotropic Radiated Power in W
- D = Separation distance in m

Power density in units of W/m<sup>2</sup> is converted to units of mW/cm<sup>2</sup> by dividing by 10.

Distance is given by:

$$D = \text{SQRT} (\text{EIRP} / (4 * \text{Pi} * S))$$

where

- D = Separation distance in m
- EIRP = Equivalent Isotropic Radiated Power in W
- S = Power density in W/m<sup>2</sup>

In the table(s) below, Power and Gain are entered in units of dBm and dBi respectively and conversions to linear forms are used for the calculations.

**LIMITS**

From FCC §1.1310 Table 1 (B), the maximum value of S = 1.0 mW/cm<sup>2</sup>

**RESULTS**

<b>Bandwidth Modulation</b>	<b>Mode</b>	<b>Separation Distance (m)</b>	<b>Output Power (dBm)</b>	<b>Antenna Gain (dBi)</b>	<b>FCC Power Density (mW/cm<sup>2</sup>)</b>
<b>5MHz QPSK</b>	<b>WiMAX</b>	0.20	25.58	6.00	0.286
<b>5MHz 16QAM</b>	<b>WiMAX</b>	0.20	25.62	6.00	0.289
<b>10MHz QPSK</b>	<b>WiMAX</b>	0.20	25.45	6.00	0.278
<b>10MHz 16QAM</b>	<b>WiMAX</b>	0.20	25.26	6.00	0.266