Lab Code: 200167-0

FCC PART 15.247

MEASUREMENT AND TEST REPORT

For

IXIA

26601 W. Agoura Road
Calabasas, CA 91302

FCC ID: RCXGC617644

Report Type:	**Product Type:**
☒ Supplemental Test Report (rev.1)	802.11 a/b/g Wireless Multi Client Emulator (Client Device)

Test Engineer:	Dan Coronia	
Report Number:	R0706045-247-a	
Report Date:	2007-10-30	
Reviewed By:	Daniel Deng, RF Engineering Lead	
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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

This BACL measurement and test report has been compiled on behalf of *Ixia* and their product *FCC ID:* RCXGC617644, or the EUT as referred to in the rest of this report which is an 802.11 a/b/g Wireless Multi Client Emulator (client device) platform designed for testing Wi-Fi devices and networks. The model *IxWLAN SED-MR+*, capable of simulating multiple, concurrent virtual stations, also features roaming and multiple SSID testing capabilities. The EUT is an 802.11 a/b/g wireless device that operates on 2412-2462 MHz, 5150-5350 MHz, 5470-5725 MHz and 5725-5825 MHz bands. The EUT is programmed at the point of manufacture for client device operation only and does not have autonomous transmitting ability.

** The test data gathered in this report were from a production sample provided by the manufacturer with the serial number: B1218*

Antenna Information: The three identical antennae, *Nearson* model: Swivel Antenna 614 utilized by this device are external antennae with SMA (reverse polarity plug, female) connectors and maximum gain of 4.0 dBi (2.4~2.5 GHz), 5dBi (5.15~5.35 GHz) and 4.5dBi (5.75~5.85 GHz).

Swivel Multi-band Wireless LAN Antennae			
Frequency (MHz)	**Main Antenna Gain (dBi)**	**Polarization**	**Radiation**
2450	4.0	Vertical	Omni
5250	5.0	Vertical	Omni
5750	4.5	Vertical	Omni

EUT Photo

Additional EUT photos in Exhibit C

Mechanical Description

The EUT is of metallic construction and measures approximately 203 mm (L) x 330 mm (W) x 53 mm (H) and weighs approximately 2.24 kg.

Objective

This original submission test report is prepared on behalf of *Ixia*. in accordance with Part 2, Subpart J, Part 15, Subparts A, B, and C of the Federal Communication Commissions rules.

The objective is to determine compliance with FCC rules for the following test items: Conducted Output Power, Antenna Requirements, AC Line Conducted Emission and Radiated Emissions in Restricted Bands.

As declared by *Ixia* the three identical transmitter modules used in the model: IxWLAN SED-MR+, are all identical (FCC ID: NKRCM9, Model: CM9), and share the same fadio frequency characteristics with the exception being the antennae used. The antenna used in IxWLAN SED-MR+ model has same gain of the original antenna certified for use with the CM9 module.

Related Submittal(s)/Grant(s)

This submittal is related to certified transmitter module manufactured by Winstron NeWeb (FCC ID: NKRCM9, Model CM9 tested by International Standards Laboratory in report: ISL-04LR018FC). Only those tests pertaining to the module's (FCC ID: NKRCM9) implementation in host device (Ixia model: IxWLAN SED-MR+) have been performed and recorded herein. For all testing and results pertaining to the original modular approval please refer to International Standards Laboratory report: ISL-04LR018FC.

Test Methodology

All measurements contained in this report were conducted in accordance with ANSI C63.4-2003, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.

Based on NIS 81, The Treatment of Uncertainty in EMC Measurements, the values range from $\pm$2.0 for Conducted Emissions tests and $\pm$4.0 dB for Radiated Emissions tests are the most accurate estimates pertaining to uncertainty of EMC measurements at BACL.

Detailed instrumentation measurement uncertainties can be found in BACL report QAP-018.

All radiated and conducted emissions measurement was performed at Bay Area Compliance Laboratory, Corp. The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Test Facility

The Test site used by BACL Corp. to collect radiated and conducted emissions measurement data is located at it's facility in Sunnyvale, California, USA.

Test site at BACL has been fully described in reports submitted to the Federal Communication Commission (FCC) and Voluntary Control Council for Interference (VCCI). The details of these reports has been found to be in compliance with the requirements of Section 2.948 of the FCC Rules on February 11 and December 10, 1997 and Article 8 of the VCCI regulations on December 25, 1997. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2003.

The Federal Communications Commission and Voluntary Control Council for Interference have the reports on file and is listed under FCC registration number: 90464 and VCCI Registration No.: C-1298 and R-1234. The test site has been approved by the FCC and VCCI for public use and is listed in the FCC Public Access Link (PAL) database.

Additionally, BACL is a National Institute of Standards and Technology (NIST) accredited laboratory, under the National Voluntary Laboratory Accredited Program (Lab Code 200167-0). The current scope of accreditations can be found at http://ts.nist.gov/ts/htdocs/210/214/scopes/2001670.htm

SYSTEM TEST CONFIGURATION

Justification

The host system was configured for testing according to ANSI C63.4-2003.

The EUT was tested in the testing mode to represent *worst*-case results during the final qualification test.

EUT Exercise Software

The EUT is programmed with the following data rate settings that were used during testing:

Channel	Mode	Frequency MHz	Date rate Mbps
149	802.11a	5745	6 – 54
157	802.11a	5785	6 – 54
165	802.11a	5825	6 - 54
1	802.11b	2412	1 - 11
6	802.11b	2437	1 - 11
11	802.11b	2462	1 - 11
1	802.11g	2412	1 - 54
6	802.11g	2437	1 - 54
11	802.11g	2462	1 - 54

Special Accessories

There were no special accessories were required, included, or intended for use with EUT during these tests.

Equipment Modifications

No modifications were made to the EUT.

Local Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
Dell	Laptop PC	PP04S	OF926A02

Power Supply Information

Manufacturer	Description	Model	Serial Number	FCC ID
CUI Inc.	AC Adapter	A1-15S05	R00042200434	None

External I/O Cabling List and Details

Cable Description	Length (M)	Cable Type	From	To
RJ45	2	Shielded	EUT	Laptop PC
Serial Cable	1.7	Shielded	EUT	Laptop PC

SUMMARY OF TEST RESULTS

Results reported relate only to the product tested.

FCC Rules	Description of Test	Result	Notes
§15.247(i), §2.1091	RF Exposure	Compliant	Please refer to ISL Report: ISL-04LR018FC
§15.203	Antenna Requirement	Compliant	/
§ 15.107 (a)	Conducted Emissions	Compliant	/
§15.205	Restricted Band	Compliant	/
§15.109 (a) & §15.247(c)	Radiated Spurious Emissions	Compliant	/
§15.247 (a)(2)	6 dB Bandwidth	Compliant	Please refer to ISL Report: ISL-04LR018FC
§15.247 (b)(3)	Maximum Peak Output Power	Compliant	Please refer to ISL Report: ISL-04LR018FC
§ 15.247 (c)	100 kHz Bandwidth of Frequency Band Edge	Compliant	Please refer to ISL Report: ISL-04LR018FC
§15.247 (d)	Power Spectral Density	Compliant	Please refer to ISL Report: ISL-04LR018FC

§ 15.247 (i) and § 2.1091 - RF EXPOSURE

According to §15.247(e)(i) and §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

According to §1.1310 and §2.1091 RF exposure is calculated.

Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm^2)	Averaging Time (minutes)
Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*($180/f^2$)	30
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

MPE Prediction

Predication of MPE limit at a given distance

Equation from page 18 of OET Bulletin 65, Edition 97-01

$S = PG/4\pi R^2$

Where: S = power density
P = power input to antenna
G = power gain of the antenna in the direction of interest relative to an isotropic radiator
R = distance to the center of radiation of the antenna

802.11b mode:

Maximum peak output power at antenna input terminal:	22.724 (dBm)
Maximum peak output power at antenna input terminal:	187.24 (mW)
Prediction distance:	20 (cm)
Predication frequency:	2437(MHz)
Antenna Gain (typical):	4.0 (dBi)
antenna gain:	2.51 (numeric)
Power density at predication frequency at 20 cm:	0.094 (mW/cm^2)

MPE limit for uncontrolled exposure at prediction frequency: 1.0 (mW/cm^2)

802.11g mode:

Maximum peak output power at antenna input terminal:	22.912 (dBm)
Maximum peak output power at antenna input terminal:	195.52 (mW)
Prediction distance:	20 (cm)
Predication frequency:	2462(MHz)
Antenna Gain (typical):	4.0 (dBi)
antenna gain:	2.51 (numeric)
Power density at predication frequency at 20 cm:	0.098 (mW/cm^2)

MPE limit for uncontrolled exposure at prediction frequency: 1.0 (mW/cm^2)

Result: Compliant.

For 5745 – 5825 MHz: **802.11a**

Measurement Results

Maximum peak output power at antenna input terminal:	20.012 (dBm)
Maximum peak output power at antenna input terminal:	100.277 (mW)
Prediction distance:	20 (cm)
Predication frequency:	5745(MHz)
Antenna Gain (typical):	4.5 (dBi)
antenna gain:	2.82 (numeric)
Power density at predication frequency at 20 cm:	0.056 (mW/cm^2)

MPE limit for uncontrolled exposure at prediction frequency: 1.0 (mW/cm^2)

Result: Compliant.

§15.203 - ANTENNA REQUIREMENT

Applicable Standard

According to § 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

And according to § 15.247 (b) (4), if transmitting antennas of directional gain greater than 6 dBi are used the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Result: Compliant, the three identical antennae, *Nearson* model: Swivel Antenna 614 utilized by this device are external antenna with SMA (reverse polarity plug, female) connectors and a maximum gain of 4.0 dBi (2.4~2.5 GHz), 5dBi (5.15~5.35 GHz) and 4.5dBi (5.75~5.85 GHz).

§15.107 - CONDUCTED EMISSIONS

Section 15.107 Conducted limits:

For an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50 µH/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequencies ranges.

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56 *	56 to 46 *
0.5-5	56	46
5-30	60	50

** Decreases with the logarithm of the frequency.*

Test Setup

The measurement was performed at shielded room, using the setup per ANSI C63.4 – 2003 measurement procedure. The specification used was FCC Class B limits.

External I/O cables were draped along the edge of the test table and bundle when necessary.

The EUT was plugged into LISN 1 which provided 120V/ 60 Hz AC.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date
Rohde & Schwarz	EMI Test Receiver	ESCI 1166.5950K03	100337	2007-03-08
Solar Electronics	LISN	9252-R-24-BNC	511205	2006-07-07

*** Statement of Traceability: BACL Corp.** attests that all calibrations have been performed per the NVLAP requirements, traceable to the NIST.

Test Procedure

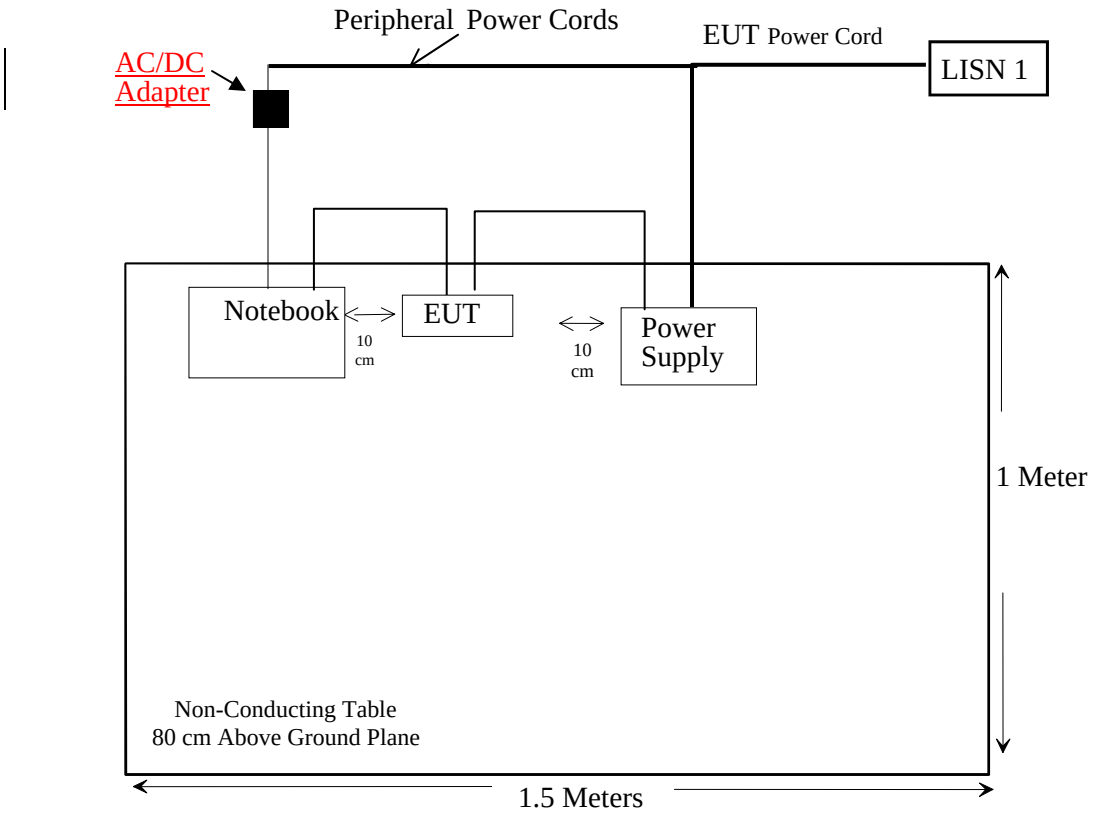
During the conducted emissions test, the power cord of the EUT was connected to the mains outlet of the LISN-1.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All data was recorded in the peak detection mode, quasi-peak and average. Quasi-Peak readings are distinguished with a "QP". Average readings are distinguished with an "Ave".

Test Setup Block Diagram

Conducted Emissions



Environmental Conditions

Temperature:	20° C -23° C
Relative Humidity:	30% - 63%
ATM Pressure:	101.1 – 101.9 kPa

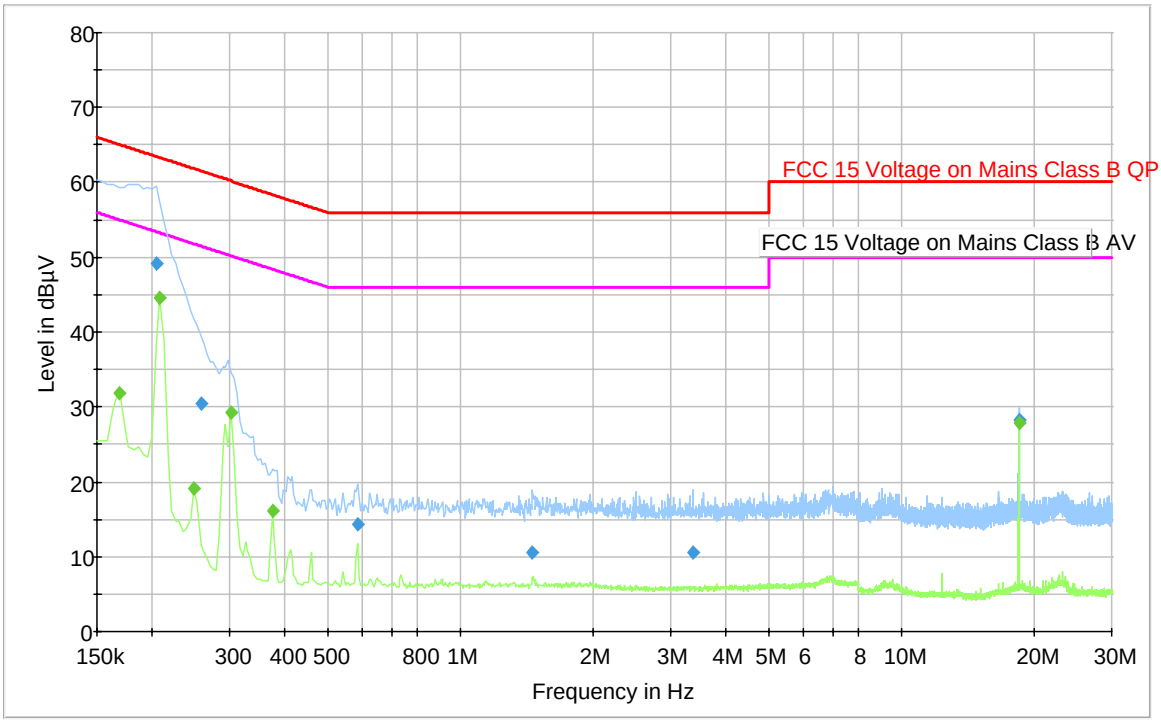
** The testing was performed by Dan Coronia from 2007-06-11 to 2007-06-15*

Summary of Test Results

According to the recorded data in following table, the EUT complied with the FCC rule's conducted emissions limits for Class B devices, with the *worst* margin reading of:

Connection: 120 V/60 Hz AC			
Margin (dB)	**Frequency (MHz)**	**Conductor Mode (Hot/Neutral)**	**Range (MHz)**
-8.8	0.208500	Hot	0.150 MHz to 30 MHz

120 V/ 60 Hz Hot:



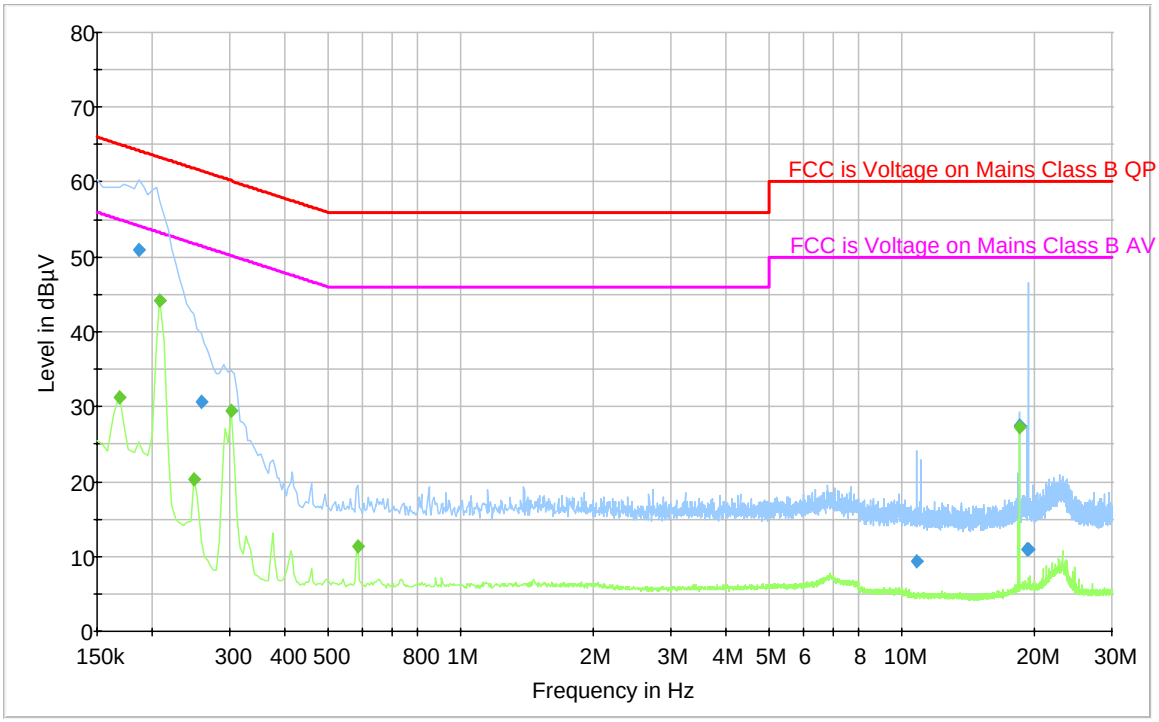
Quasi-Peak

Frequency (MHz)	Quasi Peak (dBµV)	Hot/Neutral	Correction Factor (dB)	Limit (dBµV)	Margin (dB)
0.204000	49.2	Hot	12.1	63.4	-14.2
0.258000	30.5	Hot	12.3	61.5	-31.0
18.487500	28.2	Hot	12.5	60.0	-31.8
0.586500	14.4	Hot	12.5	56.0	-41.6
1.459500	10.5	Hot	12.5	56.0	-45.5
3.372000	10.5	Hot	12.4	56.0	-45.5

Average

Frequency (MHz)	Average (dBµV)	Hot/Neutral	Correction Factor (dB)	Limit (dBµV)	Margin (dB)
0.208500	44.5	Hot	12.2	53.3	-8.8
0.303000	29.2	Hot	12.3	50.2	-20.9
18.487500	27.9	Hot	12.3	50.0	-22.1
0.168000	31.9	Hot	12.3	55.1	-23.1
0.375000	16.1	Hot	12.3	48.4	-32.3
0.249000	19.1	Hot	12.3	51.8	-32.7

120 V/60 Hz Neutral:



Quasi-Peak

Frequency (MHz)	Quasi Peak (dBµV)	Hot/Neutral	Correction Factor (dB)	Limit (dBµV)	Margin (dB)
0.186000	50.8	Neutral	12.3	64.2	-13.4
0.258000	30.6	Neutral	12.3	61.5	-30.9
18.487500	27.5	Neutral	12.3	60.0	-32.5
19.297500	11.0	Neutral	12.3	60.0	-49.0
19.356000	10.9	Neutral	12.3	60.0	-49.1
10.828500	9.4	Neutral	12.3	60.0	-50.6

Average

Frequency (MHz)	Average (dBµV)	Hot/Neutral	Correction Factor (dB)	Limit (dBµV)	Margin (dB)
0.208500	44.2	Neutral	12.4	53.3	-9.1
0.303000	29.4	Neutral	12.5	50.2	-20.8
0.168000	31.3	Neutral	12.1	55.1	-23.8
18.487500	27.4	Neutral	12.6	50.0	-22.6
0.249000	20.3	Neutral	12.5	51.8	-31.5
0.586500	11.3	Neutral	12.3	46.0	-34.7

§15.205 & §15.109 & §15.247(d) - RADIATED SPURIOUS EMISSIONS

Applicable Standard

As per 15.35(d): Unless otherwise specified, on any frequency or frequencies above 1000 MHz, the radiated emission limits are based on the use of measurement instrumentation employing an average detector function. Unless otherwise specified, measurements above 1000 MHz shall be performed using a minimum resolution bandwidth of 1 MHz.

As per 15.209(a): Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100**	3
88 - 216	150**	3
216 - 960	200**	3
Above 960	500	3

** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

As per 15.247(c) (1) (i): Systems operating in the 2400-2483.5 MHz band that are used exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6 dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

As Per 15.205(a) except as show in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (GHz)
0.090 – 0.110	16.42 – 16.423	960 – 1240	4. 5 – 5. 15
0.495 – 0.505	16.69475 – 16.69525	1300 – 1427	5. 35 – 5. 46
2.1735 – 2.1905	25.5 – 25.67	1435 – 1626.5	7.25 – 7.75
4.125 – 4.128	37.5 – 38.25	1645.5 – 1646.5	8.025 – 8.5
4.17725 – 4.17775	73 – 74.6	1660 – 1710	9.0 – 9.2
4.20725 – 4.20775	74.8 – 75.2	1718.8 – 1722.2	9.3 – 9.5
6.215 – 6.218	108 – 121.94	2200 – 2300	10.6 – 12.7
6.26775 – 6.26825	123 – 138	2310 – 2390	13.25 – 13.4
6.31175 – 6.31225	149.9 – 150.05	2483.5 – 2500	14.47 – 14.5
8.291 – 8.294	156.52475 – 156.52525	2690 – 2900	15.35 – 16.2
8.362 – 8.366	156.7 – 156.9	3260 – 3267	17.7 – 21.4
8.37625 – 8.38675	162.0125 –167.17	3332 – 3339	22.01 – 23.12
8.41425 – 8.41475	167.72 – 173.2	3345.8 – 3358	23.6 – 24.0
12.29 – 12.293	240 – 285	3600 – 4400	31.2 – 31.8
12.51975 – 12.52025	322 – 335.4		36.43 – 36.5
12.57675 – 12.57725	399.9 – 410		Above 38.6
13.36 – 13.41	608 – 614		

As Per 15.247(d),In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

Test Setup

The radiated emissions tests were performed in the 3-meter open area test site, using the setup in accordance with ANSI C63.4-2003. The specification used was the FCC 15 Subpart C limits.

The spacing between the peripherals was 10 centimeters.

External I/O cables were draped along the edge of the test table and bundle when necessary.

The EUT was plugged into LISN 1 which provided 120V/ 60 Hz AC.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date
Sonoma	Amplifier, Pre	317	260406	2007-04-30
Agilent	Pre amplifier	8449B	3008A01978	2006-08-10
Sunol Science Corp	Combination Antenna	JB3 Antenna	A020106-3	2007-03-05
Rohde & Schwarz	EMI Test Receiver	ESCI 1166.595 0K03	100337	2007-03-08
Sunol Science Corp	System Controller	S9V	113005-1	NR
Agilent	Spectrum Analyzer	E4440A	MY44303352	2007-02-23
A.R.A	Antenna Horn	DRG-118/A	1132	2006-08-17
Agilent	Spectrum Analyzer	8565EC	3946A00131	2007-01-24

* **Statement of Traceability:** BACL attests that all calibrations have been performed per the NVLAP requirements, traceable to NIST.

Test Procedure

For the radiated emissions test, the EUT, and all support equipment power cords was connected to the AC floor outlet.

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all Installation combinations.

The EUT is set 3 meter away from the testing antenna, which is varied from 1-4 mete, and the EUT is placed on a turntable, which is 0.8 meter above ground plane, the table shall be rotated for 360 degrees to

find out the highest emission. The receiving antenna should be changed the polarization both of horizontal and vertical.

The spectrum analyzer or receiver is set as:

Below 1000MHz:

RBW = 100 kHz / VBW = 300 kHz / Sweep = Auto

Above 1000MHz:

(1) Peak: RBW = 1MHz / VBW = 1MHz / Sweep = Auto
(2) Average: RBW = 1MHz / VBW = 10Hz / Sweep = Auto

Corrected Amplitude & Margin Calculation

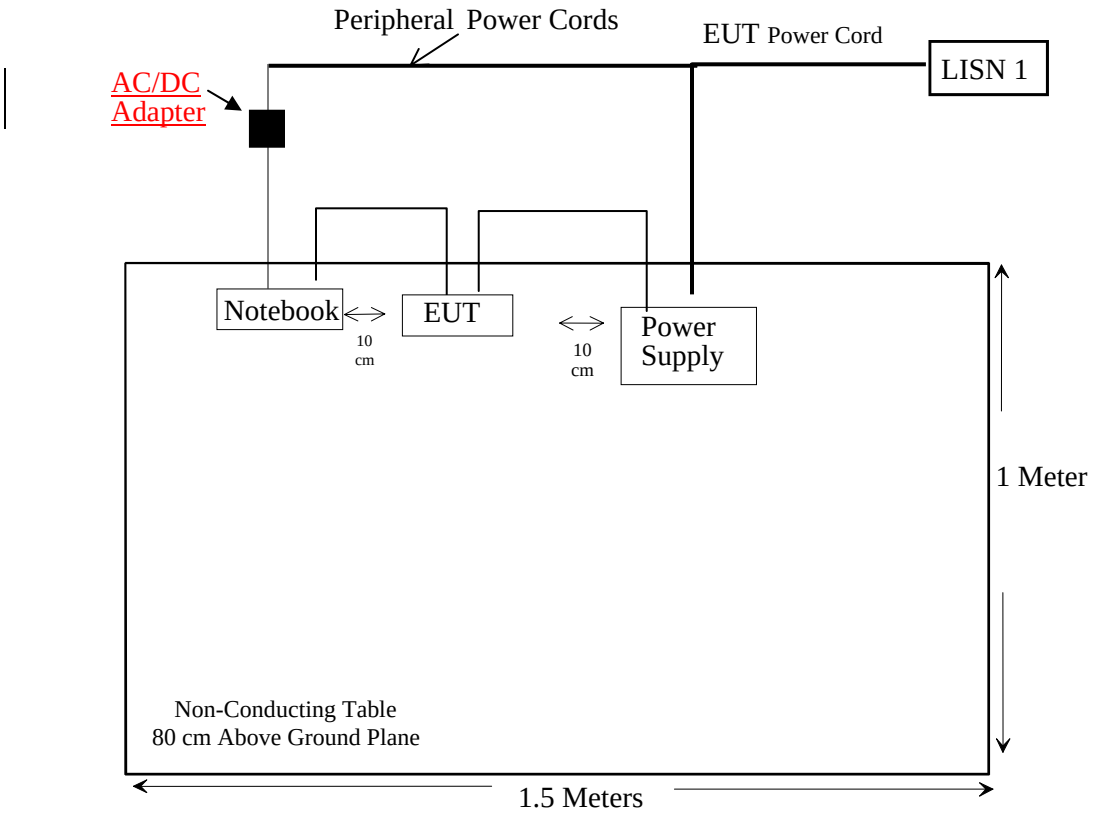
The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

Corrected Amplitude = Indicated Reading + Antenna Factor + Cable Factor - Amplifier Gain

The "**Margin**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -7dB means the emission is 7dB below the maximum limit.
The equation for margin calculation is as follows:

Margin = Corrected Amplitude - FCC Limit

Test Setup Block Diagram



Environmental Conditions

Temperature:	22 °C
Relative Humidity:	56 %
ATM Pressure:	104.1 kPa

** The testing was performed by Dan Coronia from 2007-06-11 to 2007-06-15*

Summary of Test Results

According to the data hereinafter, the EUT complied with the FCC Title 47, Part 15, Subpart C, section 15.205, 15.209 and 15.247, and had the worst margin of:

Unintentional Emissions, (30-1000 MHz):

Mode: Receiver			
Margin (dB)	**Frequency (MHz)**	**Polarization (Horizontal/Vertical)**	**Channel**
-4.1	666.643750	Horizontal	NA, 30 MHz to 1000 MHz

Out of Band Emissions:

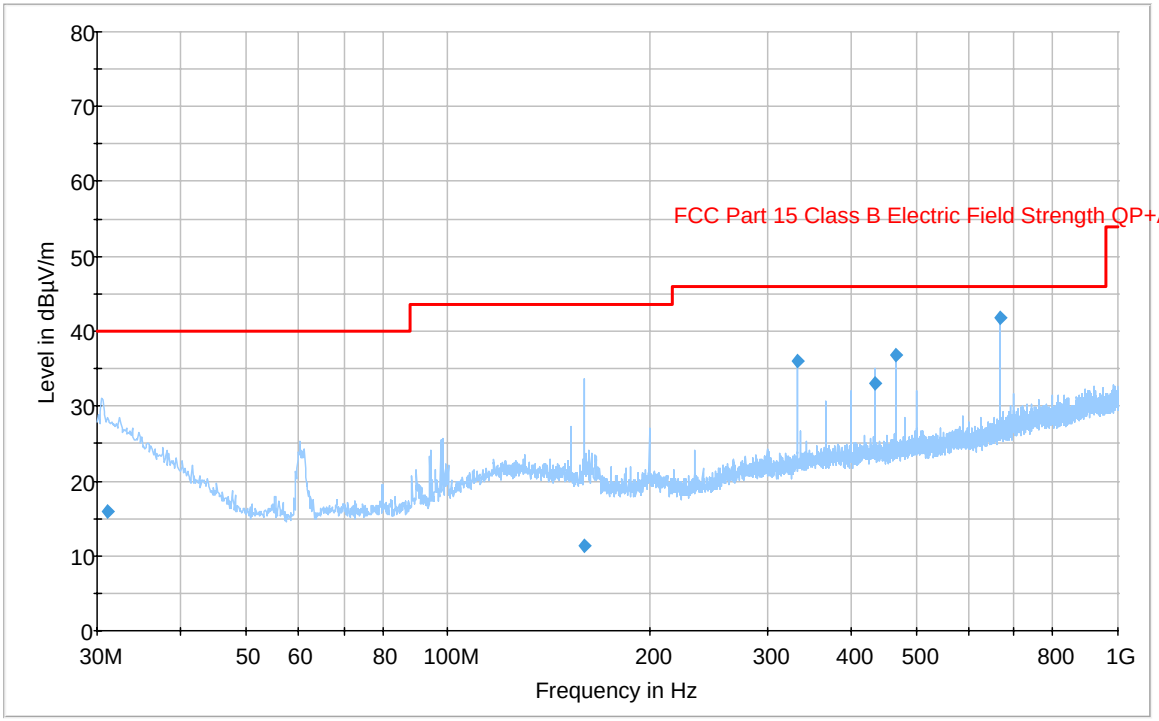
Mode: 802.11 b			
Margin (dB)	**Frequency (MHz)**	**Polarization (Horizontal/Vertical)**	**Channel**
-17.3	7236.000	Vertical	Low, 1 GHz – 25GHz
-16.4	7311.000	Vertical	Middle, 1 GHz – 25GHz
-16.7	7386.000	Vertical	High, 1 GHz – 25GHz

Mode: 802.11 g			
Margin (dB)	**Frequency (MHz)**	**Polarization (Horizontal/Vertical)**	**Channel**
-15.6	7236.000	Vertical	Low, 1 GHz – 25GHz
-15.5	7311.000	Vertical	Middle, 1 GHz – 25GHz
-16.3	7386.000	Horizontal	High, 1 GHz – 25GHz

Mode: 802.11 a (5745 – 5825 MHz)			
Margin (dB)	**Frequency (MHz)**	**Polarization (Horizontal/Vertical)**	**Channel**
-4.16	17235.000	Vertical	Low, 1 GHz – 25GHz
-4.71	11570.000	Vertical	Middle, 1 GHz – 25GHz
-5.04	11650.000	Vertical	High, 1 GHz – 25GHz

Radiated Emissions Test plot & data:

Primary scan 30MHz -1GHz



Frequency (MHz)	Quasi-Peak (dBµV/m)	Antenna Height (cm)	Polarity (H/V)	Turntable Position (degrees)	Limit (dBµV/m)	Margin (dB)
666.643750	41.9	99.0	H	141.0	46.0	-4.1
466.662500	36.9	99.0	V	6.0	46.0	-9.1
333.327500	36.1	99.0	H	124.0	46.0	-9.9
433.318750	33.0	99.0	V	149.0	46.0	-13.0
31.085000	16.0	383.0	V	152.0	40.0	-24.0
160.300000	11.4	325.0	H	263.0	43.5	-32.1

802.11b mode:

Low channel

Frequency (MHz)	Reading (dBuV)	Direction Degrees	Height (m)	Polar. H / V	Antenna Factor (dB/m)	Cable Loss (dB)	Pre-Amplifier (dB)	Corrected Amp. (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Comments
2412.0000	111.44	317	1.2	V	28.7	2.7	35.8	107.0			Fund/Peak
2412.0000	105.99	283	1.8	H	28.7	2.7	35.8	101.5			Fund/Peak
2412.0000	69.22	317	1.2	V	28.7	2.7	35.8	64.7			Ave
2412.0000	67.92	283	1.8	H	28.7	2.7	35.8	63.4			Ave
7236.0000	30.11	282	1.5	V	36.7	4.8	34.9	36.7	54	-17.3	Ave
7236.0000	30.10	339	1.9	H	36.7	4.8	34.9	36.7	54	-17.3	Ave
9648.0000	29.16	276	1.4	V	38.1	5.5	36.9	35.9	54	-18.1	Ave
9648.0000	28.96	316	1.3	H	38.1	5.5	36.9	35.7	54	-18.3	Ave
4824.0000	32.14	111	1.2	V	32.5	3.8	34.8	33.7	54	-20.3	Ave
4824.0000	29.44	300	1.7	H	32.5	3.8	34.8	31.0	54	-23.0	Ave
7236.0000	44.12	282	1.5	V	36.7	4.8	34.9	50.7	74	-23.3	Peak
9648.0000	42.12	245	1.5	V	38.1	5.5	36.9	48.9	74	-25.1	Peak
7236.0000	40.64	339	1.9	H	36.7	4.8	34.9	47.2	74	-26.8	Peak
4824.0000	45.44	111	1.2	V	32.5	3.8	34.8	47.0	74	-27.0	Peak
9648.0000	38.15	316	1.3	H	38.1	5.5	36.9	44.9	74	-29.1	Peak
4824.0000	40.98	213	2.0	H	32.5	3.8	34.8	42.5	74	-31.5	Peak

Middle channel

Frequency (MHz)	Reading (dBuV)	Direction Degrees	Height (m)	Polar. H / V	Antenna Factor (dB/m)	Cable Loss (dB)	Pre-Amplifier (dB)	Corrected Amp. (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Comments
2437.0000	112.60	267	1.3	V	28.7	2.7	35.8	108.1			Fund/Peak
2437.0000	106.79	313	1.6	H	28.7	2.7	35.8	102.3			Fund/Peak
2437.0000	68.15	267	1.3	V	28.7	2.7	35.8	63.7			Ave
2437.0000	66.58	313	1.6	H	28.7	2.7	35.8	62.1			Ave
7311.0000	31.22	300	1.6	V	36.7	4.8	35.1	37.6	54	-16.4	Ave
7311.0000	31.12	340	1.8	H	36.7	4.8	35.1	37.5	54	-16.5	Ave
9748.0000	30.11	242	1.3	V	38.1	5.6	36.7	37.2	54	-16.8	Ave
9748.0000	29.16	322	1.4	H	38.1	5.6	36.7	36.2	54	-17.8	Ave
4874.0000	33.21	120	1.3	V	32.5	3.8	34.8	34.8	54	-19.2	Ave
4874.0000	30.16	200	2.0	H	32.5	3.8	34.8	31.7	54	-22.3	Ave
4874.0000	46.28	120	1.3	V	32.5	3.8	34.8	47.8	74	-26.2	Peak
7311.0000	44.85	300	1.6	V	36.7	4.8	35.1	51.2	74	-22.8	Peak
9748.0000	42.75	242	1.3	V	38.1	5.6	36.7	49.8	74	-24.2	Peak
7311.0000	41.00	340	1.8	H	36.7	4.8	35.1	47.4	74	-26.6	Peak
9748.0000	38.96	322	1.4	H	38.1	5.6	36.7	46.0	74	-28.0	Peak
4874.0000	41.12	200	2.0	H	32.5	3.8	34.8	42.7	74	-31.3	Peak

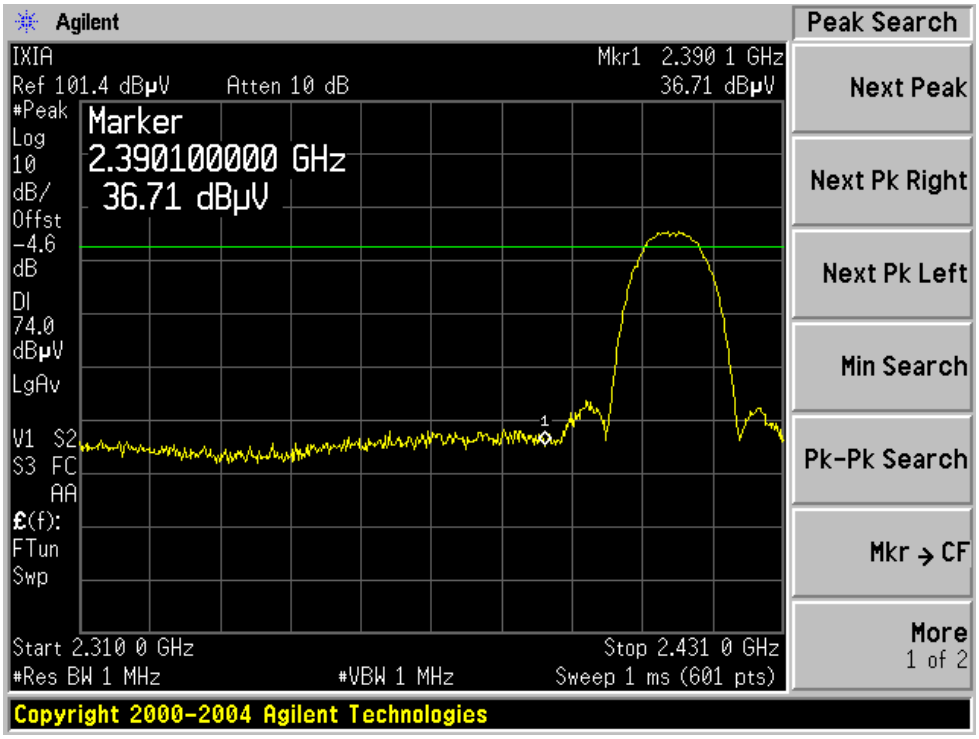
High channel

Frequency (MHz)	Reading (dBuV)	Direction Degrees	Height (m)	Polar. H / V	Antenna Factor (dB/m)	Cable Loss (dB)	Pre-Amplifier (dB)	Corrected Amp. (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Comments
2462.0000	110.53	302	1.3	V	28.7	2.7	35.8	106.1			Fund/Peak
2462.0000	105.23	312	1.5	H	28.7	2.7	35.8	100.8			Fund/Peak
2462.0000	67.92	302	1.3	V	28.7	2.7	35.8	63.5			Ave
2462.0000	67.03	312	1.5	H	28.7	2.7	35.8	62.6			Ave
7386.0000	30.89	280	1.5	V	36.7	4.8	35.1	37.3	54	-16.7	Ave
7386.0000	30.76	326	1.8	H	36.7	4.8	35.1	37.2	54	-16.8	Ave
9848.0000	29.72	200	1.4	V	38.1	5.6	37.0	36.5	54	-17.5	Ave
9848.0000	29.10	320	1.3	H	38.1	5.6	37.0	35.8	54	-18.2	Ave
4924.0000	32.65	126	1.3	V	32.5	3.9	35.0	34.0	54	-20.0	Ave
4924.0000	29.79	200	1.8	H	32.5	3.9	35.0	31.2	54	-22.8	Ave
7386.0000	44.64	280	1.5	V	36.7	4.8	35.1	51.0	74	-23.0	Peak
9848.0000	42.58	220	1.4	V	38.1	5.6	37.0	49.3	74	-24.7	Peak
7386.0000	41.30	326	1.8	H	36.7	4.8	35.1	47.7	74	-26.3	Peak
4924.0000	45.58	126	1.3	V	32.5	3.9	35.0	47.0	74	-27.0	Peak
9848.0000	38.67	300	1.3	H	38.1	5.6	37.0	45.4	74	-28.6	Peak
4924.0000	41.18	200	1.8	H	32.5	3.9	35.0	42.6	74	-31.4	Peak

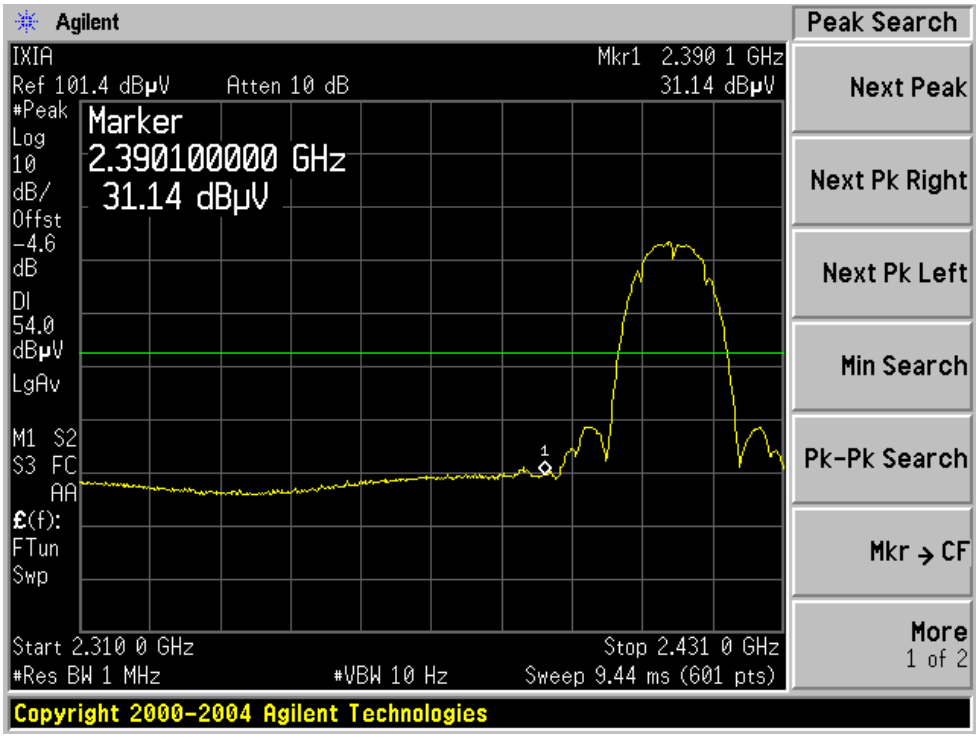
Restricted band edge

Low channel

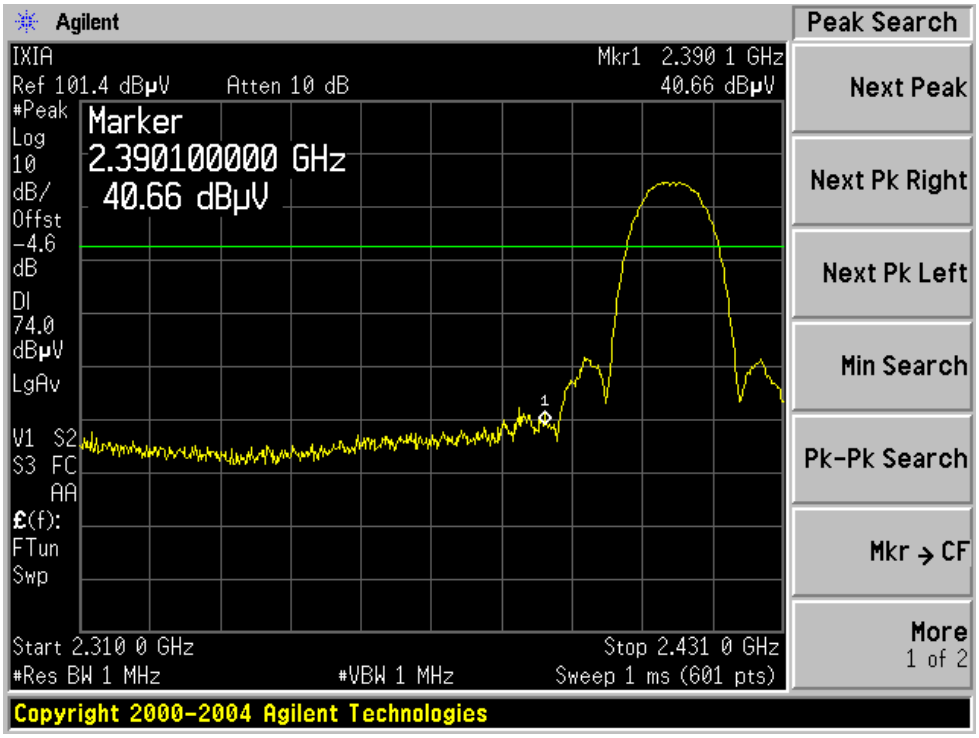
Peak, Horizontal



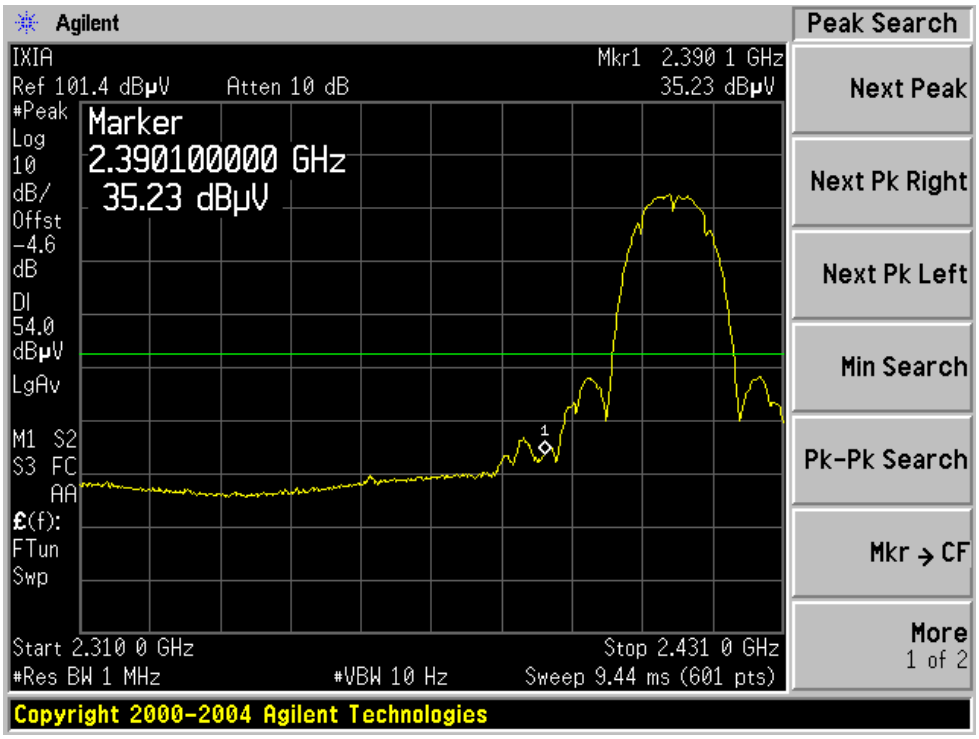
Average, Horizontal



Peak, Vertical

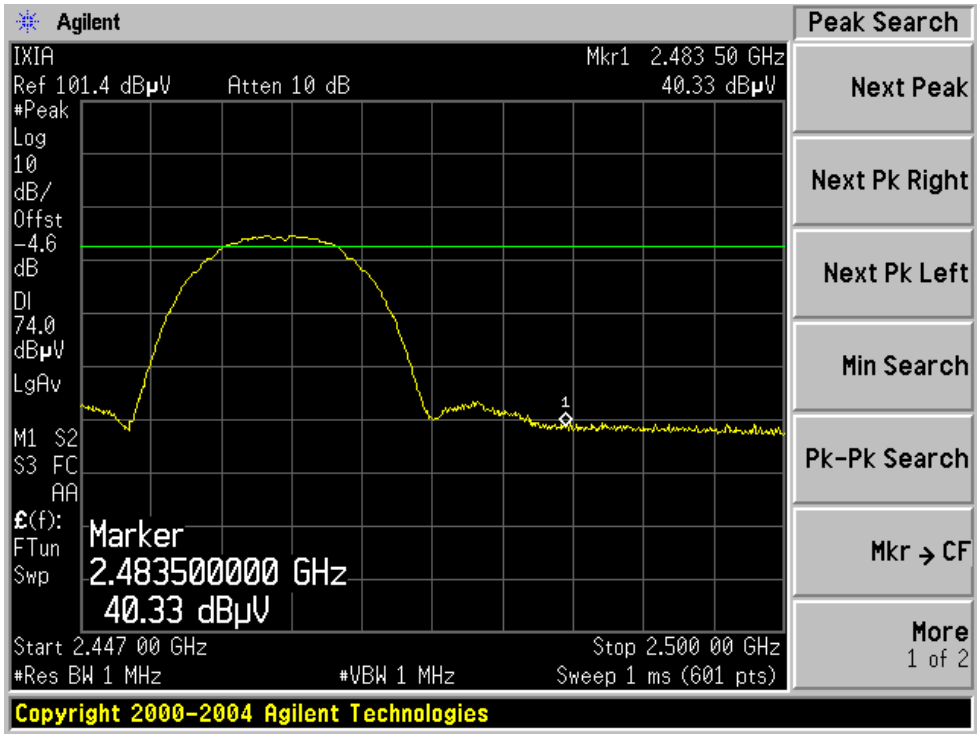


Average, Vertical

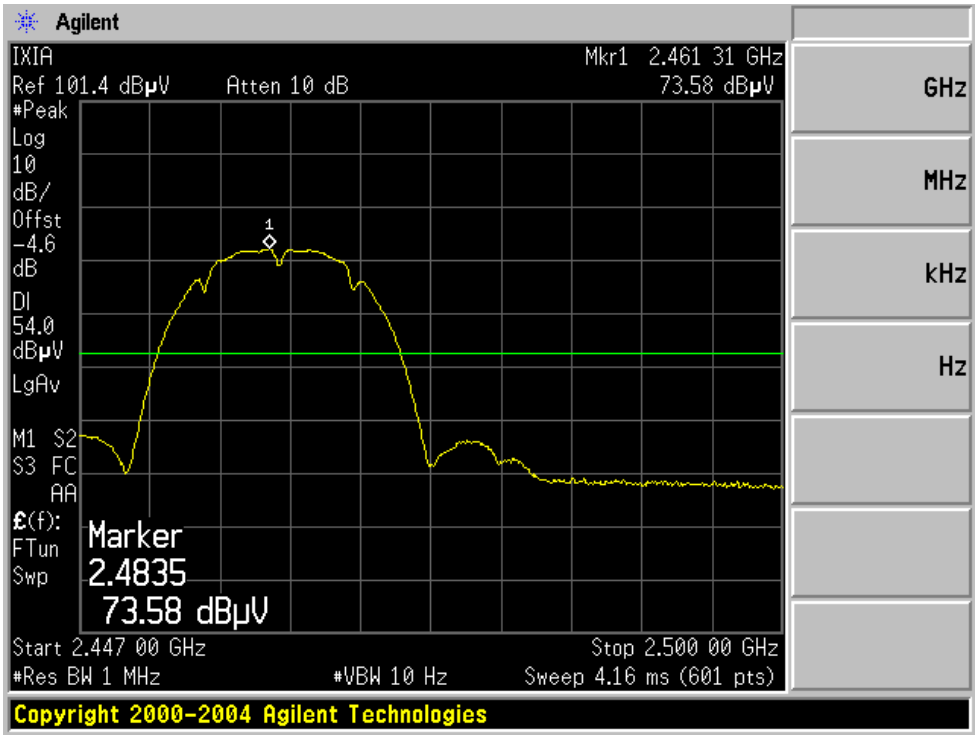


High channel

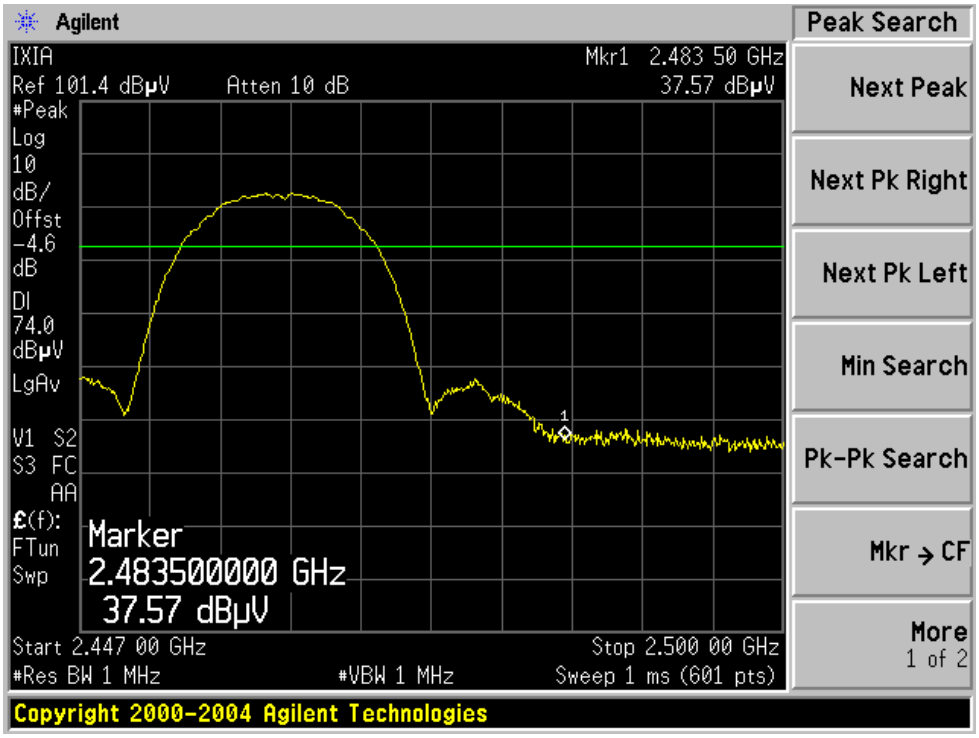
Peak, Horizontal



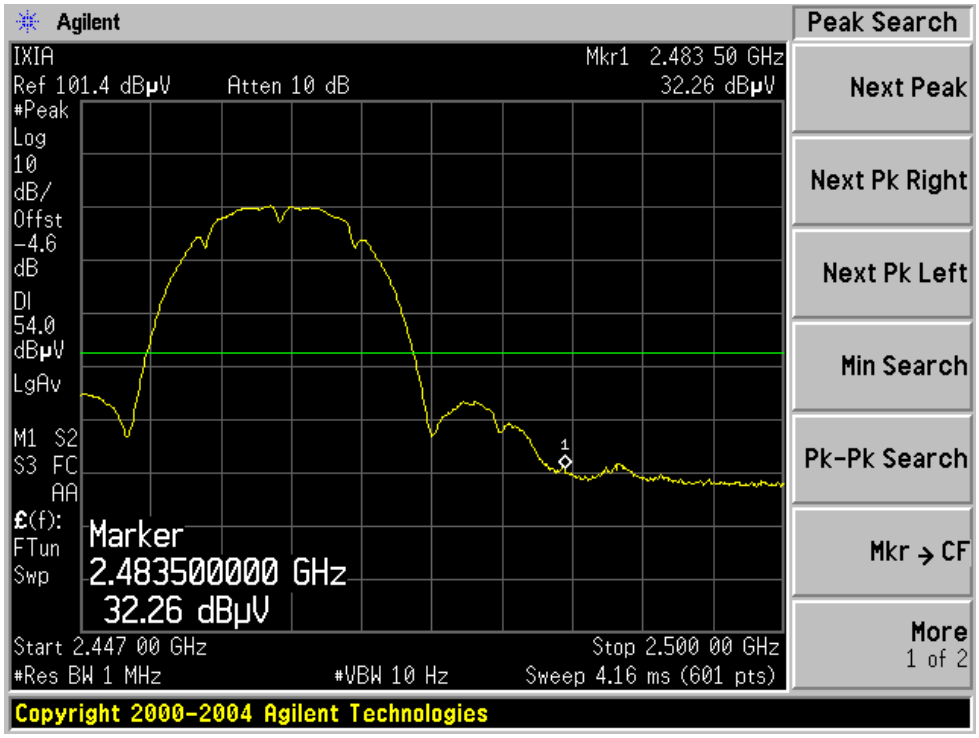
Average, Horizontal



Peak, Vertical



Average Vertical



802.11g mode:

Low channel

Frequency (MHz)	Reading (dBuV)	Direction Degrees	Height (m)	Polar. H / V	Antenna Factor (dB/m)	Cable Loss (dB)	Pre-Amplifier (dB)	Corrected Amp. (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Comments
2412.0000	112.75	272	1.2	V	28.7	2.7	35.8	108.3			Fund/Peak
2412.0000	107.79	313	1.5	H	28.7	2.7	35.8	103.3			Fund/Peak
2412.0000	68.45	272	1.2	V	28.7	2.7	35.8	64.0			Ave
2412.0000	67.07	313	1.2	H	28.7	2.7	35.8	62.6			Ave
7236.0000	31.87	280	1.6	V	36.7	4.8	34.9	38.4	54	-15.6	Ave
7236.0000	31.70	328	1.8	H	36.7	4.8	34.9	38.3	54	-15.7	Ave
9648.0000	30.59	250	1.6	V	38.1	5.5	36.9	37.3	54	-16.7	Ave
9648.0000	29.63	320	1.3	H	38.1	5.5	36.9	36.4	54	-17.6	Ave
4824.0000	33.48	119	1.1	V	32.5	3.8	34.8	35.0	54	-19.0	Ave
4824.0000	30.89	295	1.6	H	32.5	3.8	34.8	32.4	54	-21.6	Ave
7236.0000	44.98	280	1.6	V	36.7	4.8	34.9	51.5	74	-22.5	Peak
9648.0000	42.90	250	1.6	V	38.1	5.5	36.9	49.6	74	-24.4	Peak
7236.0000	41.68	328	1.8	H	36.7	4.8	34.9	48.2	74	-25.8	Peak
4824.0000	46.56	119	1.1	V	32.5	3.8	34.8	48.1	74	-25.9	Peak
9648.0000	39.12	310	1.3	H	38.1	5.5	36.9	45.9	74	-28.1	Peak
4824.0000	41.62	210	1.9	H	32.5	3.8	34.8	43.2	74	-30.8	Peak

Middle channel

Frequency (MHz)	Reading (dBuV)	Direction Degrees	Height (m)	Polar. H / V	Antenna Factor (dB/m)	Cable Loss (dB)	Pre-Amplifier (dB)	Corrected Amp. (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Comments
2437.0000	113.02	270	1.3	V	28.7	2.7	35.8	108.5			Fund/Peak
2437.0000	107.20	313	1.6	H	28.7	2.7	35.8	102.7			Fund/Peak
2437.0000	69.11	270	1.3	V	28.7	2.7	35.8	64.6			Ave
2437.0000	67.37	313	1.5	H	28.7	2.7	35.8	62.9			Ave
7311.0000	32.13	275	1.5	V	36.7	4.8	35.1	38.5	54	-15.5	Ave
7311.0000	32.01	326	1.9	H	36.7	4.8	35.1	38.4	54	-15.6	Ave
9748.0000	30.98	240	1.7	V	38.1	5.6	36.7	38.0	54	-16.0	Ave
9748.0000	29.87	300	1.2	H	38.1	5.6	36.7	36.9	54	-17.1	Ave
4874.0000	33.85	120	1.2	V	32.5	3.8	34.8	35.4	54	-18.6	Ave
4874.0000	31.20	220	1.7	H	32.5	3.8	34.8	32.7	54	-21.3	Ave
7311.0000	45.00	283	1.5	V	36.7	4.8	35.1	51.4	74	-22.6	Peak
9748.0000	43.21	246	1.7	V	38.1	4.8	36.7	49.4	74	-24.6	Peak
4874.0000	47.12	120	1.2	V	32.5	3.8	34.8	48.7	74	-25.3	Peak
7311.0000	42.14	320	1.9	H	36.7	4.8	35.1	48.5	74	-25.5	Peak
9748.0000	39.87	300	1.2	H	38.1	5.6	36.7	46.9	74	-27.1	Peak
4874.0000	42.13	220	1.7	H	32.5	3.8	34.8	43.7	74	-30.3	Peak

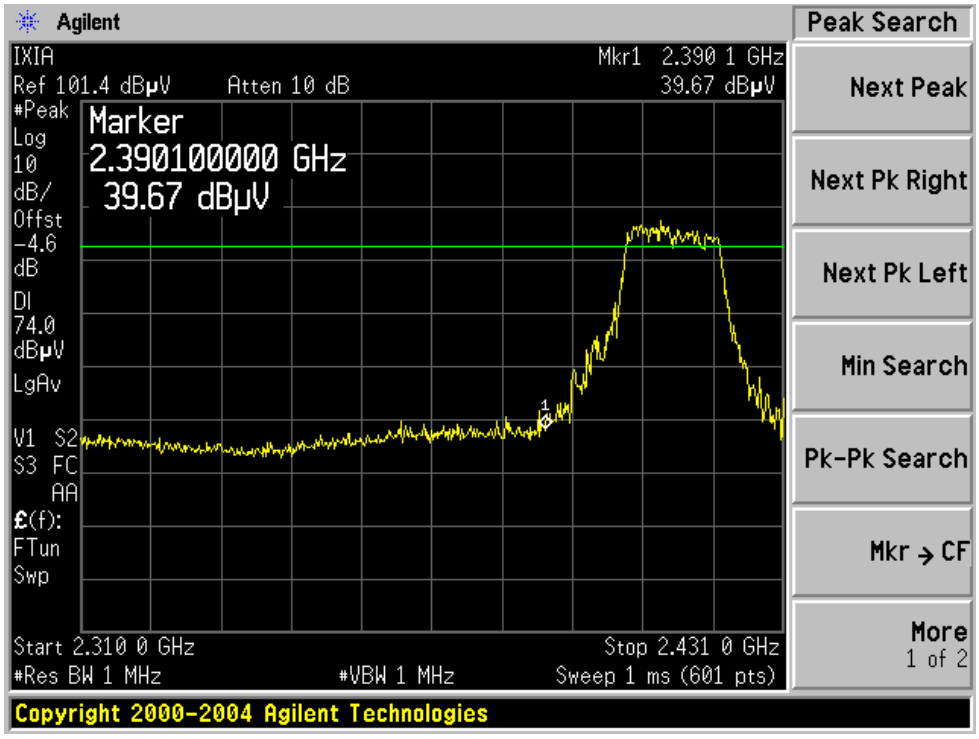
High channel

Frequency (MHz)	Reading (dBuV)	Direction Degrees	Height (m)	Polar. H / V	Antenna Factor (dB/m)	Cable Loss (dB)	Pre-Amplifier (dB)	Corrected Amp. (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Comments
2462.0000	111.80	300	1.3	V	28.7	2.7	35.8	107.3			Fund/Peak
2462.0000	106.32	315	1.4	H	28.7	2.7	35.8	101.9			Fund/Peak
2462.0000	68.90	300	1.3	V	28.7	2.7	35.8	64.4			Ave
2462.0000	67.12	315	1.4	H	28.7	2.7	35.8	62.7			Ave
7386.0000	31.32	320	1.7	H	36.7	4.8	35.1	37.7	54	-16.3	Ave
7386.0000	31.15	275	1.6	V	36.7	4.8	35.1	37.5	54	-16.5	Ave
9848.0000	30.31	200	1.5	V	38.1	5.6	37.0	37.1	54	-16.9	Ave
9848.0000	28.86	280	1.3	H	38.1	5.6	37.0	35.6	54	-18.4	Ave
4924.0000	33.12	120	1.2	V	32.5	3.9	35.0	34.5	54	-19.5	Ave
4924.0000	30.41	180	1.9	H	32.5	3.9	35.0	31.8	54	-22.2	Ave
7386.0000	44.32	275	1.6	V	36.7	4.8	35.1	50.7	74	-23.3	Peak
9848.0000	42.26	200	1.5	V	38.1	5.6	37.0	49.0	74	-25.0	Peak
7386.0000	41.23	320	1.7	H	36.7	4.8	35.1	47.6	74	-26.4	Peak
4924.0000	45.92	120	1.2	V	32.5	3.9	35.0	47.3	74	-26.7	Peak
9848.0000	38.95	280	1.3	H	38.1	5.6	37.0	45.7	74	-28.3	Peak
4924.0000	40.36	180	1.9	H	32.5	3.9	35.0	41.7	74	-32.3	Peak

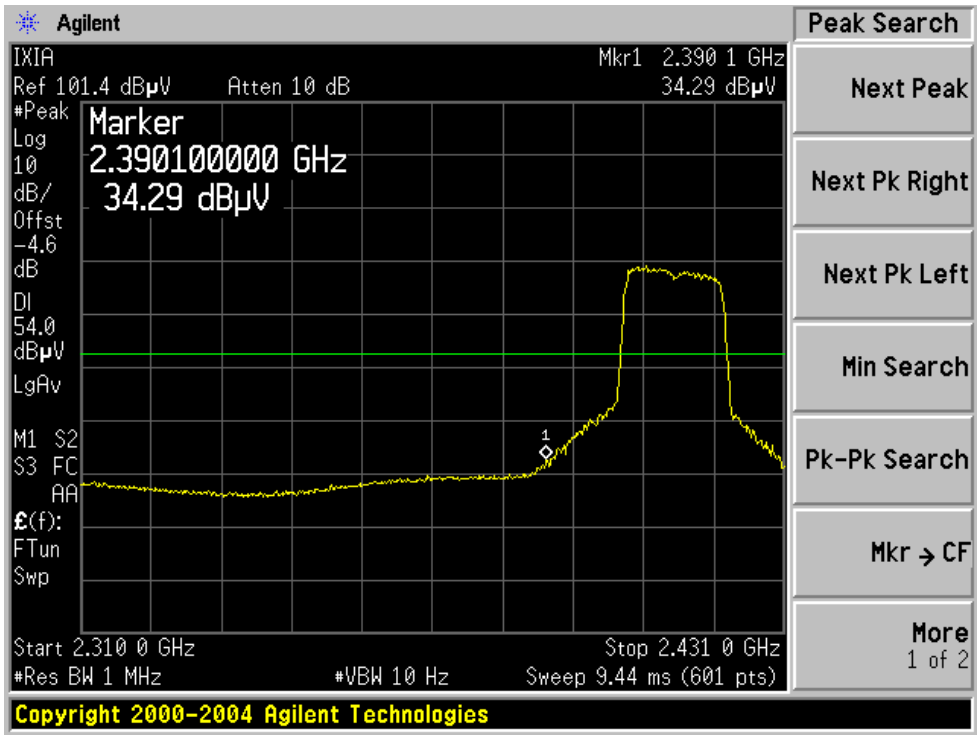
Restricted band edge

Low channel

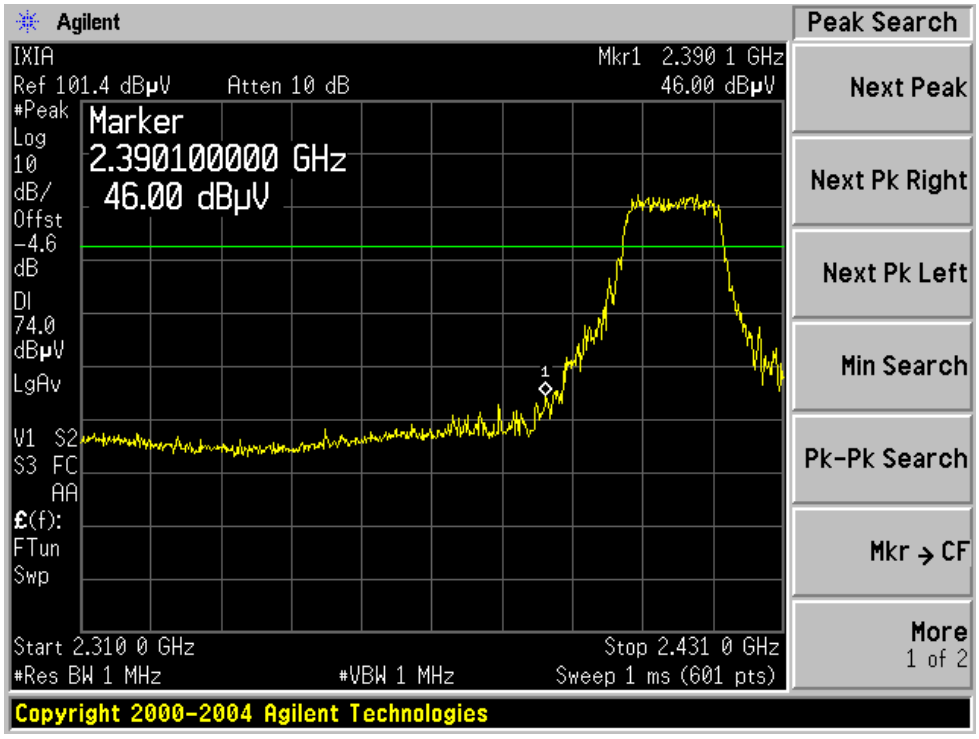
Peak, Horizontal



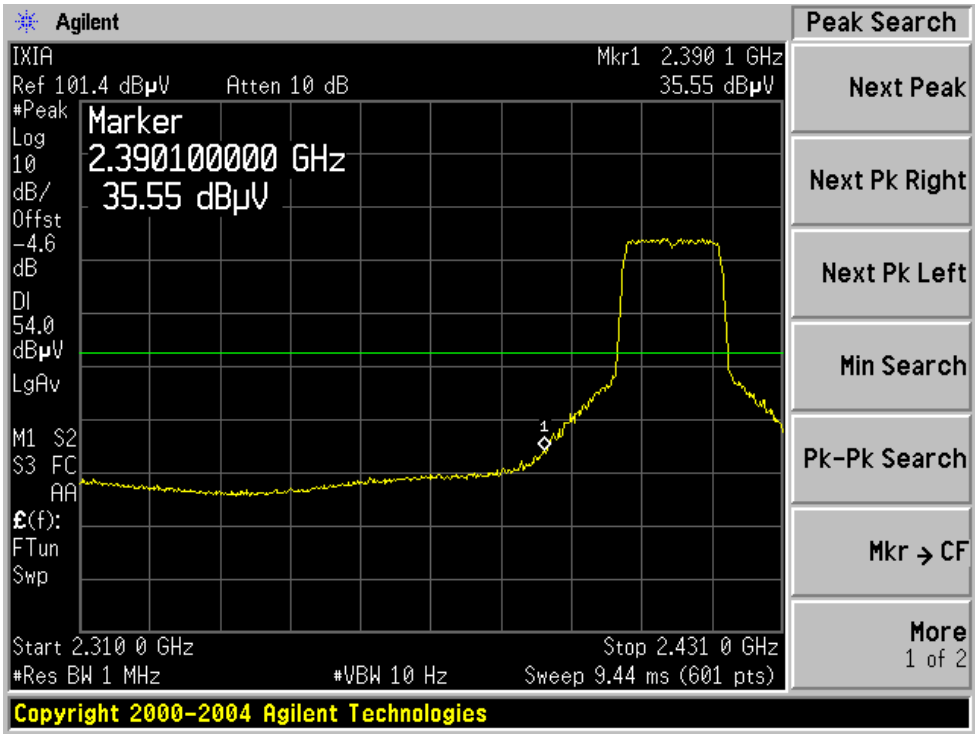
Average, Horizontal



Peak, Vertical

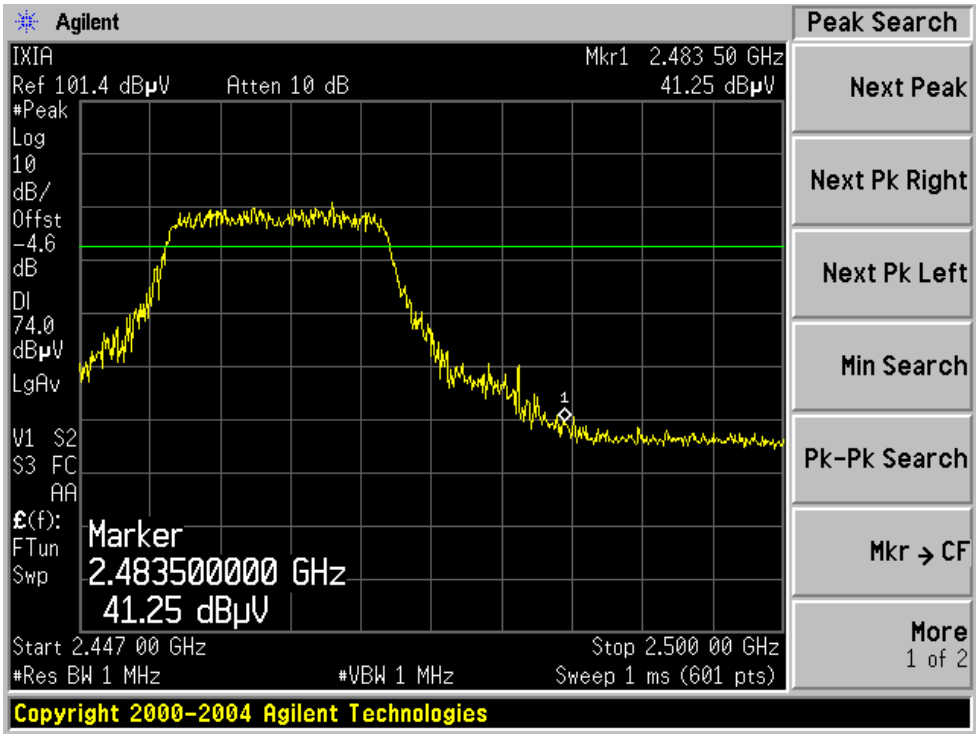


Average, Vertical

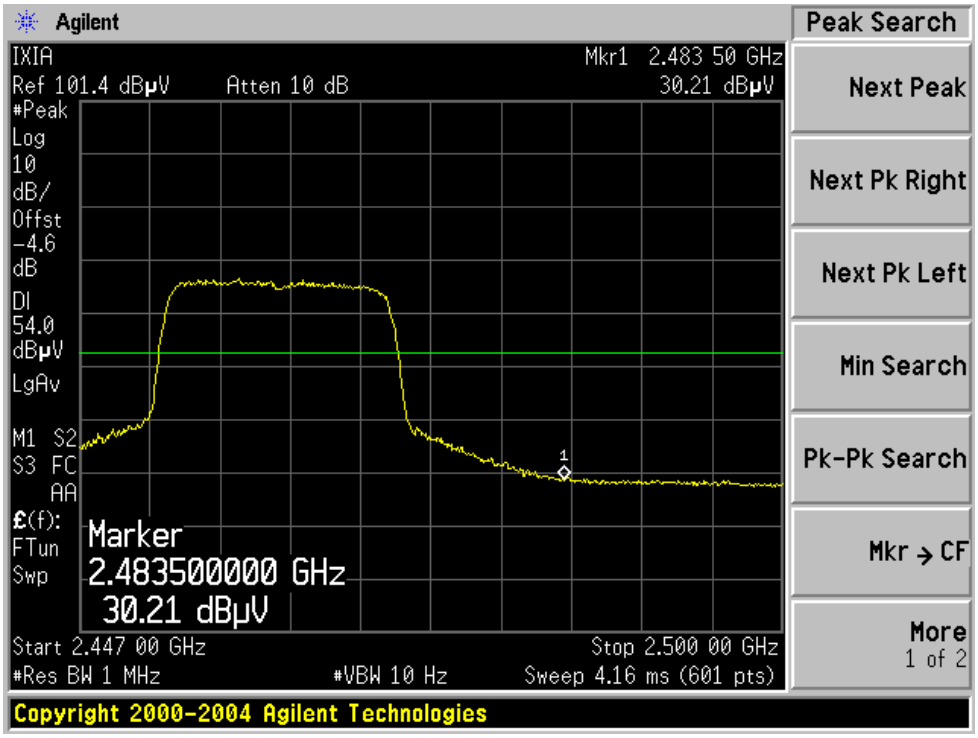


High channel

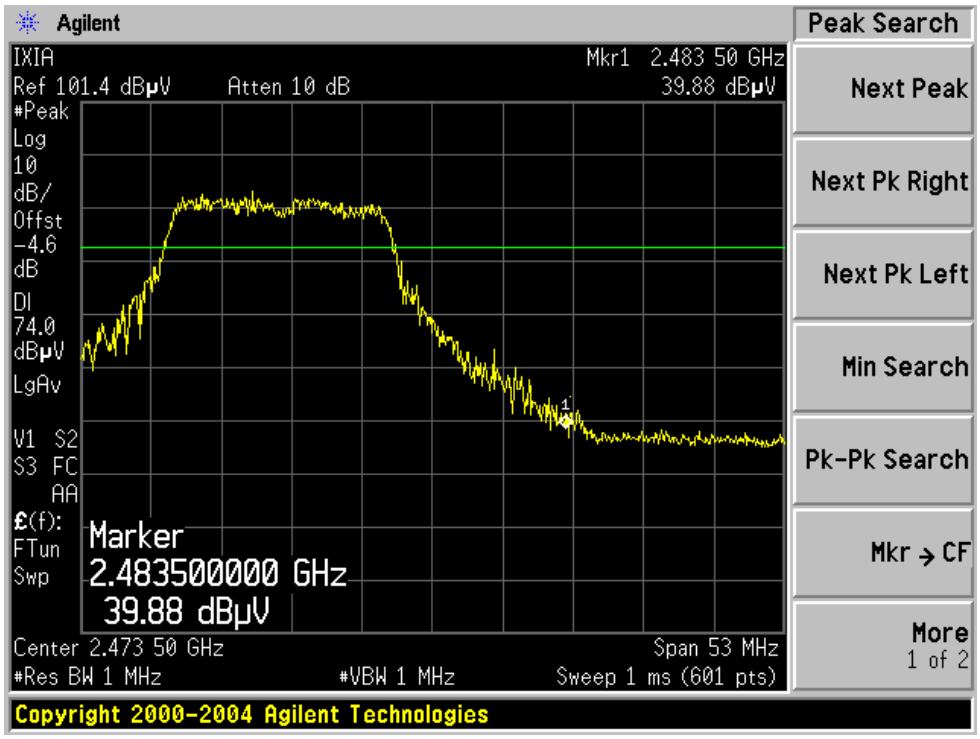
Peak, Horizontal



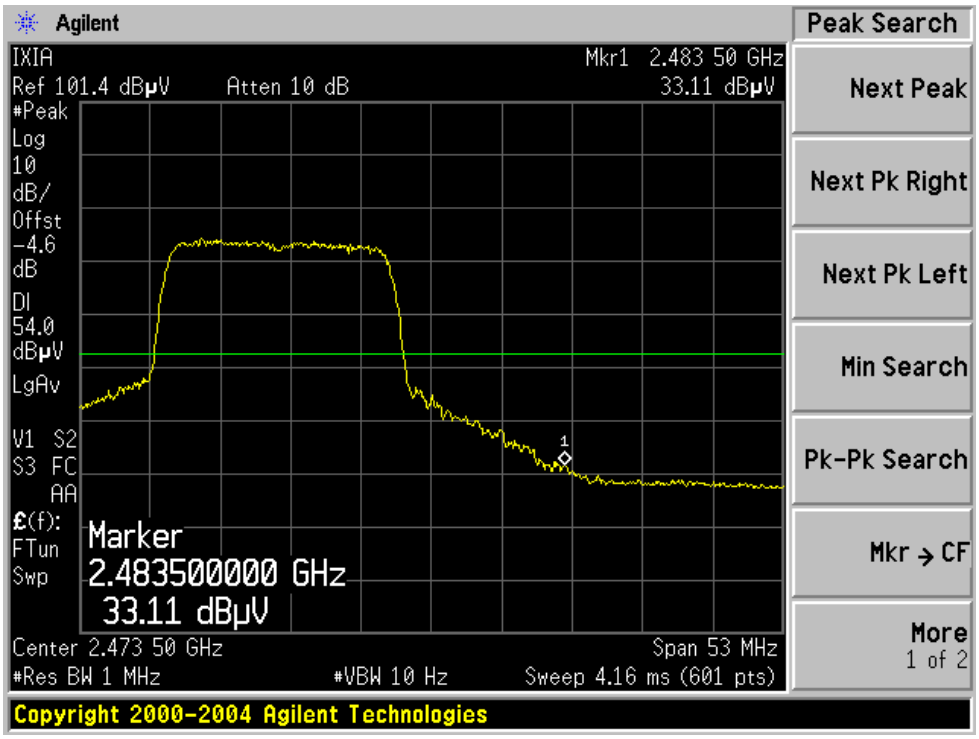
Average, Horizontal



Peak, Vertical



Average, Vertical



802.11a *for 5745 – 5825 MHz band*:

Channel: 149 (5745)

Frequency (MHz)	Reading (dBuV)	Direction Degrees	Height (m)	Polar. H / V	Antenna Factor (dB/m)	Cable Loss (dB)	Pre-Amplifier (dB)	Corrected Amp. (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Comments
5745.0000	99.5	343	1.3	V	34.1	4.2	34.4	103.3			Fund/Peak
5745.0000	94.8	328	1.6	H	34.1	4.2	34.4	98.7			Fund/Peak
5745.0000	89.2	343	1.3	V	34.1	4.2	34.4	93.0			Ave
5745.0000	84.3	328	1.6	H	34.1	4.2	34.4	88.2			Ave
17235.0000	30.2	156	1.5	V	43.6	7.6	31.6	49.8	54	-4.16	Ave
11490.0000	41.0	290	1.3	V	39.3	6.1	39.5	46.9	54	-7.09	Ave
17235.0000	26.4	217	1.0	H	43.6	7.6	31.6	46.0	54	-7.96	Ave
11490.0000	34.3	329	1.3	H	39.3	6.1	39.5	40.2	54	-13.76	Ave
17235.0000	35.7	327	1.3	V	43.6	7.6	31.6	55.3	74	-18.69	Peak
11490.0000	48.6	290	1.3	V	39.3	6.1	39.5	54.5	74	-19.49	Peak
17235.0000	28.6	217	1.0	H	43.6	7.6	31.6	48.2	74	-25.76	Peak
11490.0000	34.7	329	1.3	H	39.3	6.1	39.5	40.6	74	-33.42	Peak

Channel: 157 (5785)

Frequency (MHz)	Reading (dBuV)	Direction Degrees	Height (m)	Polar. H / V	Antenna Factor (dB/m)	Cable Loss (dB)	Pre-Amplifier (dB)	Corrected Amp. (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Comments
5785.0000	101.0	324	1.4	V	34.1	4.3	34.4	104.9			Fund/Peak
5785.0000	95.7	310	1.3	H	34.1	4.3	34.4	99.6			Fund/Peak
5785.0000	92.2	324	1.4	V	34.1	4.3	34.4	96.1			Ave
5785.0000	85.2	310	1.3	H	34.1	4.3	34.4	89.1			Ave
11570.0000	35.6	227	1.8	V	39.5	6.1	32.0	49.3	54	-4.71	Ave
17355.0000	29.3	213	1.3	V	43.6	7.7	31.6	49.0	54	-5.01	Ave
17355.0000	28.5	315	1.4	H	43.6	7.7	31.6	48.2	54	-5.81	Ave
11570.0000	32.5	290	1.5	H	39.5	6.1	32.0	46.2	54	-7.81	Ave
11570.0000	49.0	227	1.8	V	39.5	6.1	32.0	62.7	74	-11.31	Peak
17355.0000	34.6	213	1.3	V	43.6	7.7	31.6	54.3	74	-19.71	Peak
17355.0000	30.5	315	1.4	H	43.6	7.7	31.6	50.2	74	-23.81	Peak
11570.0000	35.2	290	1.5	H	39.5	6.1	32.0	48.9	74	-25.11	Peak

Channel: 165 (5825)

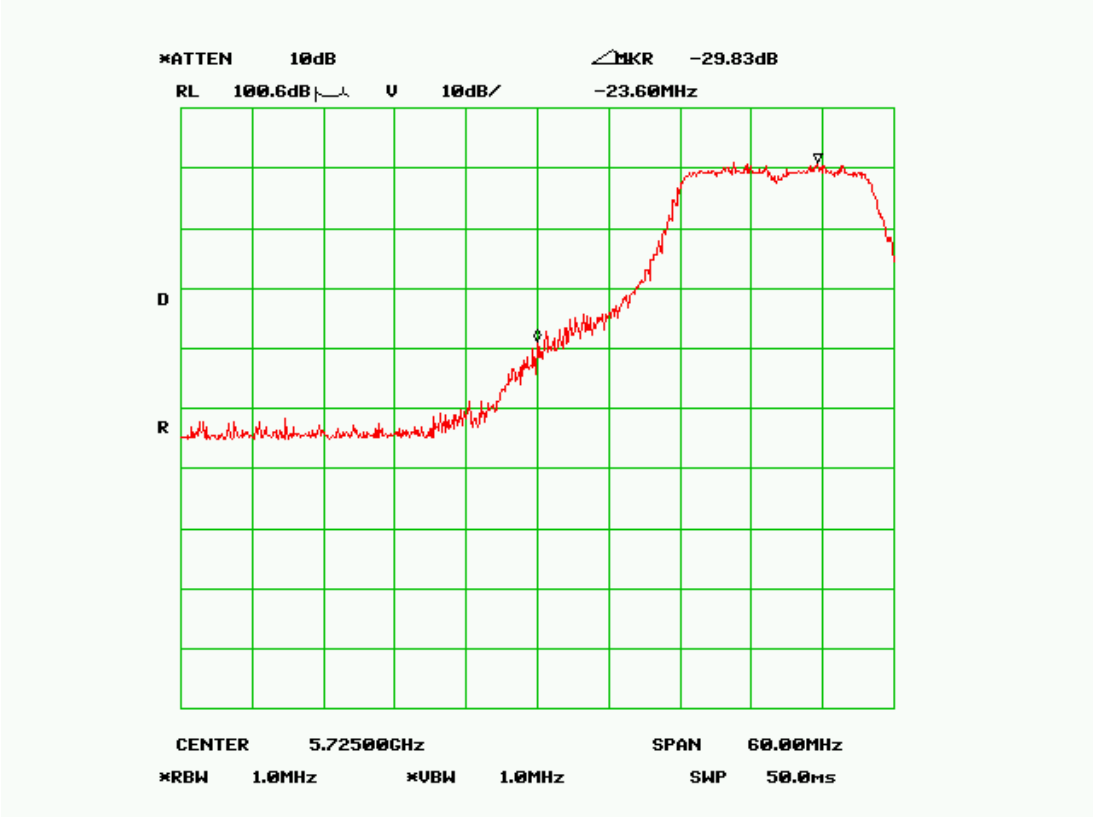
Frequency (MHz)	Reading (dBuV)	Direction Degrees	Height (m)	Polar. H / V	Antenna Factor (dB/m)	Cable Loss (dB)	Pre-Amplifier (dB)	Corrected Amp. (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Comments
5825.0000	101.2	265	1.4	V	34.1	4.2	34.3	105.2			Fund/Peak
5825.0000	96.2	336	1.5	H	34.1	4.2	34.3	100.2			Fund/Peak
5825.0000	92.5	256	1.4	V	34.1	4.2	34.3	96.5			Ave
5825.0000	87.2	336	1.5	H	34.1	4.2	34.3	91.2			Ave
11650.0000	35.2	239	1.5	V	39.5	6.2	32.0	49.0	54	-5.04	Ave
17475.0000	29.0	325	1.3	V	43.6	7.6	31.6	48.7	54	-5.34	Ave
17475.0000	27.9	273	1.1	H	43.6	7.6	31.6	47.6	54	-6.44	Ave
11650.0000	32.0	277	1.3	H	39.5	6.2	32.0	45.8	54	-8.24	Ave
11650.0000	48.8	239	1.5	V	39.5	6.2	32.0	62.6	74	-11.44	Peak
17475.0000	33.8	325	1.3	V	43.6	7.6	31.6	53.5	74	-20.54	Peak
17475.0000	29.8	273	1.1	H	43.6	7.6	31.6	49.5	74	-24.54	Peak
11650.0000	35.0	277	1.3	H	39.5	6.2	32.0	48.8	74	-25.24	Peak

***Note:** All frequencies from 1GHz to 40 GHz have been investigated.*
The restricted band limit is 54 dBµV/m.

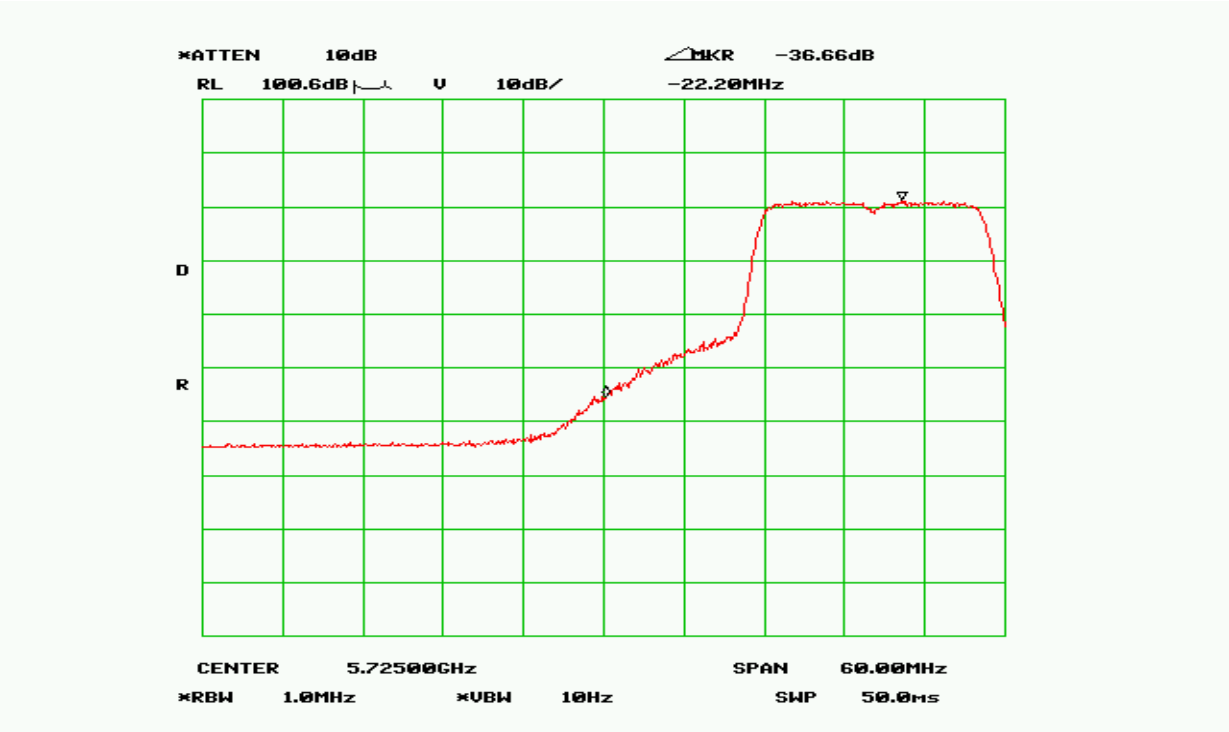
Restricted band edge

Low channel

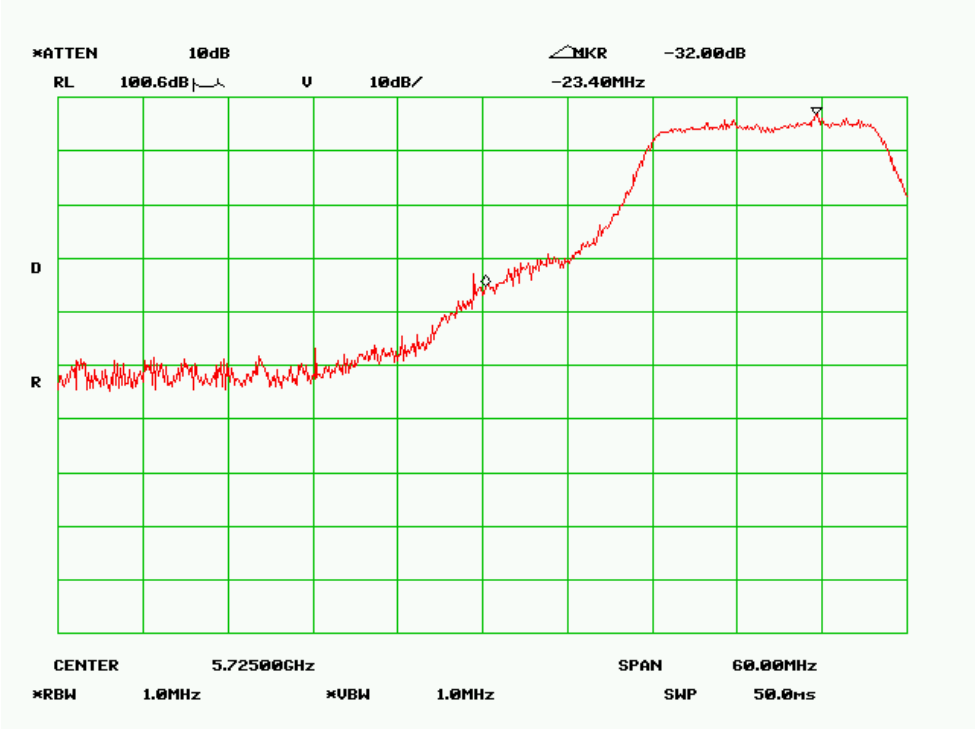
Peak, Horizontal



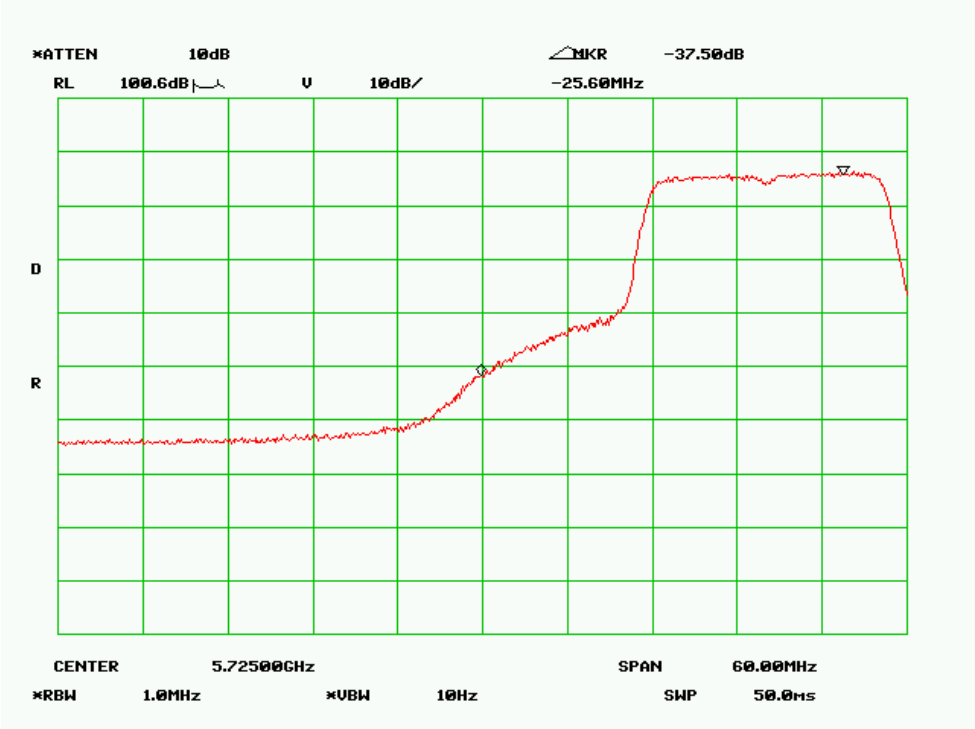
Average, Horizontal



Peak, Vertical

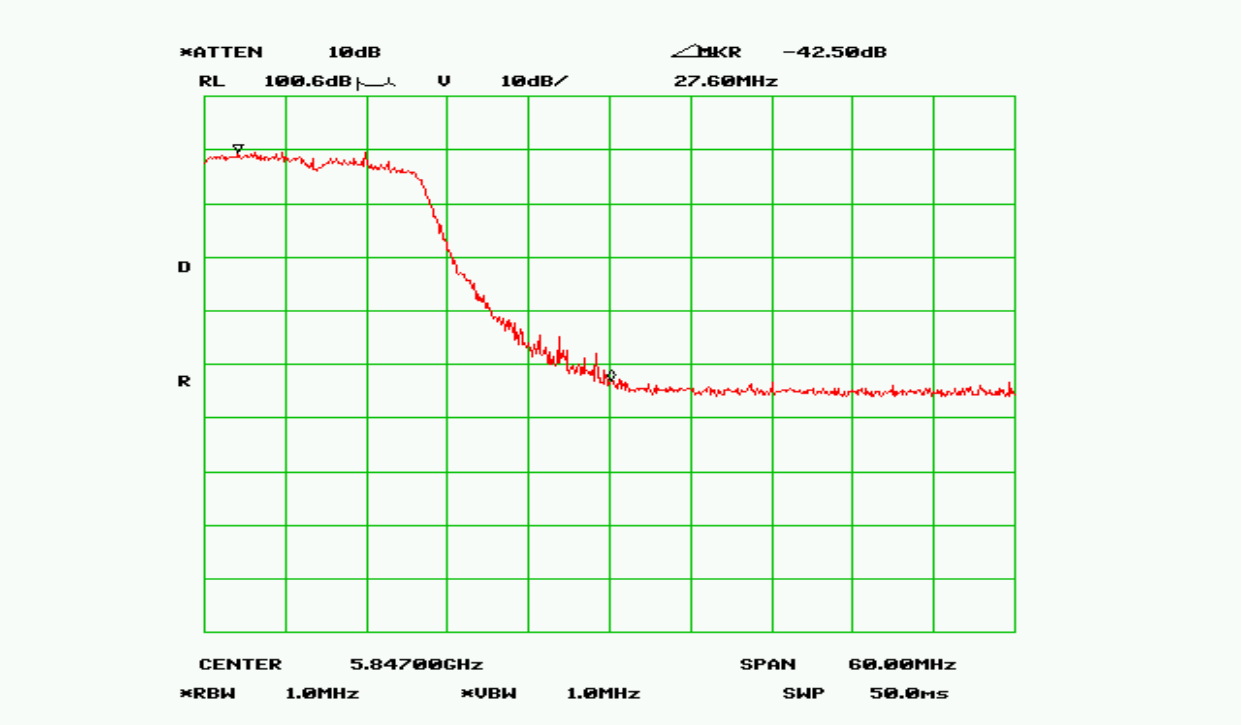


Average, Vertical

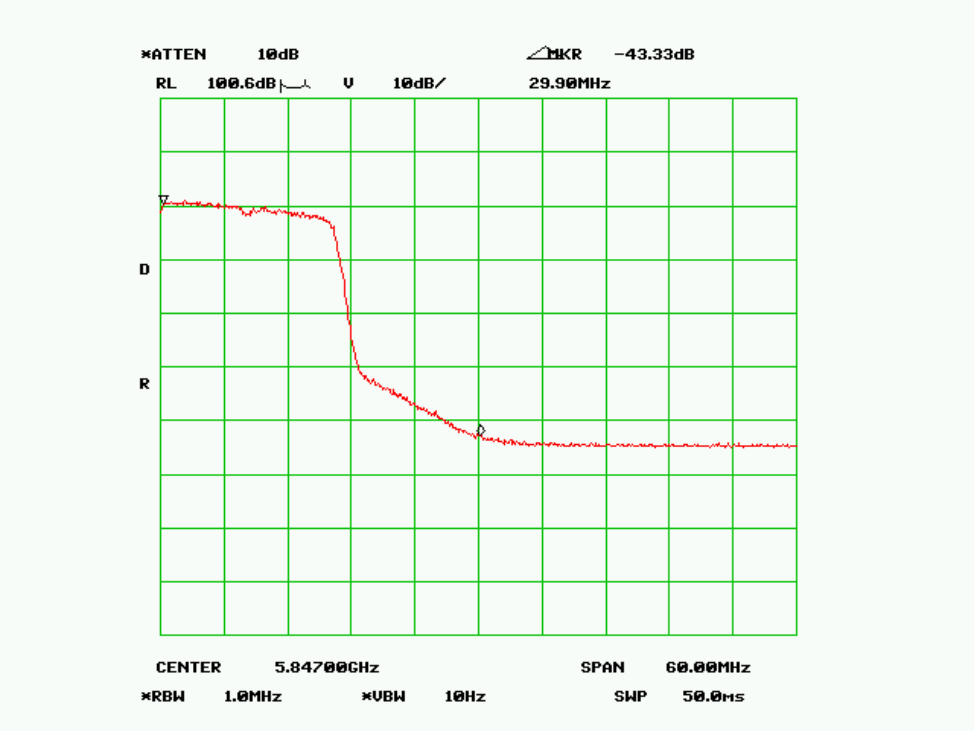


High channel

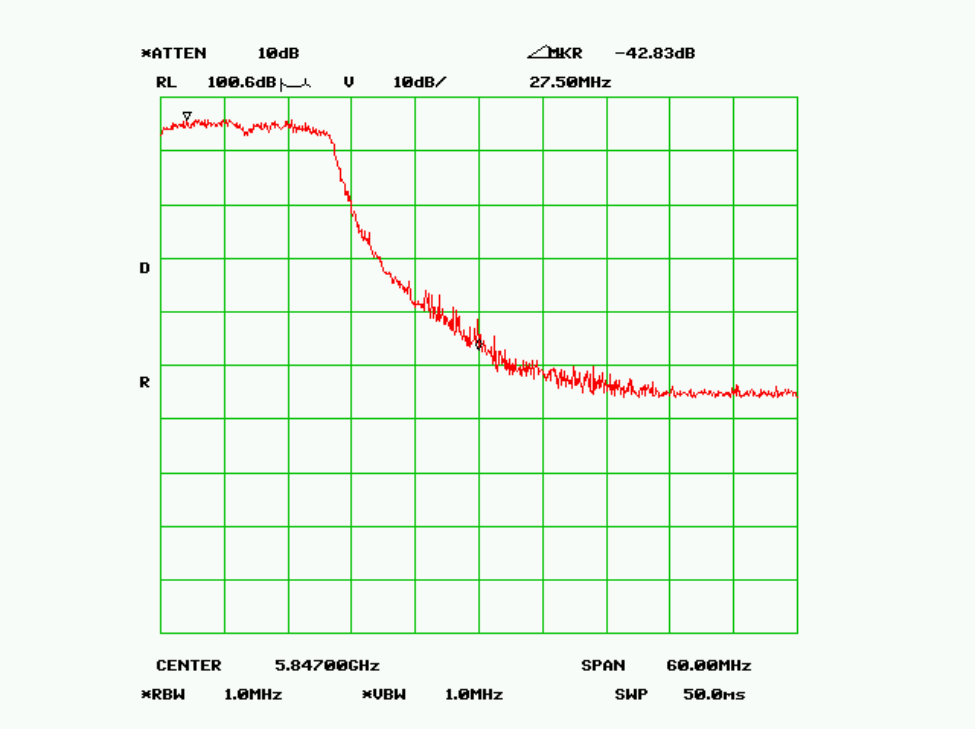
Peak, Horizontal



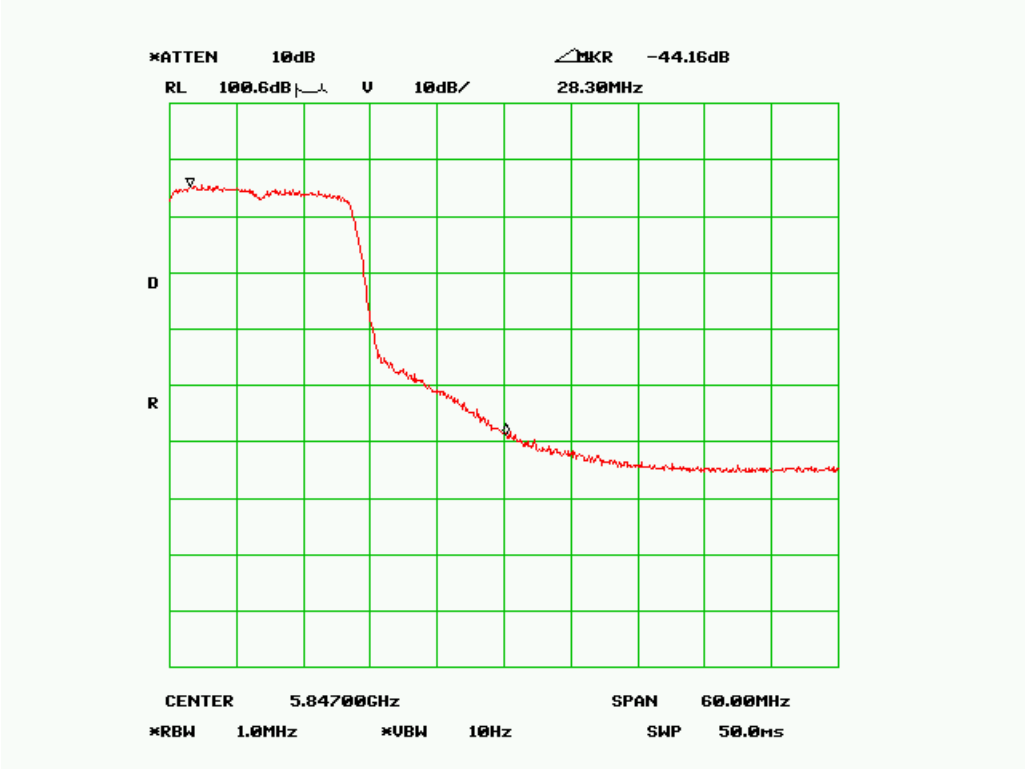
Average, Horizontal



Peak, Vertical



Average, Vertical



§15.247(a) (2) – 6 dB BANDWIDTH

Applicable Standard

According to §15.247(a)(2), systems using digital modulation techniques may operate in the 902 - 928 MHz, 2400 - 2483.5 MHz, and 5725 - 5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz

Measurement Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
3. Measure the frequency difference of two frequencies that were attenuated 6 dB from the reference level. Record the frequency difference as the emissions bandwidth. (6 dB bandwidth for DTS)
4. Repeat above procedures until all frequencies measured were complete.

Test Equipment

Please refer to the following test report:
(FCC ID: NKRCM9 tested by International Standards Laboratory in report: ISL-04LR018FC).

Test Setup Diagram

Please refer to the following test report:
(FCC ID: NKRCM9 tested by International Standards Laboratory in report: ISL-04LR018FC).

Environmental Conditions

Please refer to the following test report:
(FCC ID: NKRCM9 tested by International Standards Laboratory in report: ISL-04LR018FC).

Measurement Results

Please refer to the following test report:
(FCC ID: NKRCM9 tested by International Standards Laboratory in report: ISL-04LR018FC).

§15.247(b) - PEAK OUTPUT POWER MEASUREMENT

Applicable Standard

§15.247(b) The maximum peak output power of the intentional radiator shall not exceed the following:

§15.247(b) (3) For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt.

§15.247(b) (4) (i) Systems operating in the 2400–2483.5 MHz band that are used exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6 dBi provided the maximum peak output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

Measurement Procedure

1. Place the EUT on a bench and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to a spectrum analyzer.
3. Add a correction factor to the display.

Test Equipment

Please refer to the following test report:
(FCC ID: NKRCM9 tested by International Standards Laboratory in report: ISL-04LR018FC).

Test Setup Diagram

Please refer to the following test report:
(FCC ID: NKRCM9 tested by International Standards Laboratory in report: ISL-04LR018FC).

Environmental Conditions

Please refer to the following test report:
(FCC ID: NKRCM9 tested by International Standards Laboratory in report: ISL-04LR018FC).

Measurement Results

Please refer to the following test report:
(FCC ID: NKRCM9 tested by International Standards Laboratory in report: ISL-04LR018FC).

§15.247(d) - 100 kHz BANDWIDTH OF BAND EDGES

Applicable Standard

According to §15.247(d), in *any* 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emissions limits specified in §15.209(a) see §15.205(c)).

Measurement Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Set both RBW and VBW of spectrum analyzer to 100 kHz with a convenient frequency span including 100 kHz bandwidth from band edge.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.

Test Equipment

Please refer to the following test report:
(FCC ID: NKRCM9 tested by International Standards Laboratory in report: ISL-04LR018FC).

Test Setup Diagram

Please refer to the following test report:
(FCC ID: NKRCM9 tested by International Standards Laboratory in report: ISL-04LR018FC).

Environmental Conditions

Please refer to the following test report:
(FCC ID: NKRCM9 tested by International Standards Laboratory in report: ISL-04LR018FC).

Measurement Results

Please refer to the following test report:
(FCC ID: NKRCM9 tested by International Standards Laboratory in report: ISL-04LR018FC).

§15.247(e) – PEAK POWER SPECTRAL DENSITY

Applicable Standard

According to §15.247 (e), for digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

Measurement Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT was set without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. The maximum level in 3 kHz bandwidth is measured with the spectrum analyzer using RBW= 3 kHz and VBW > 3 kHz, sweep time = span / 3 kHz, and video averaging is turned off, the PPSD is the highest level found across the emission in any 3 kHz band.
4. Repeat above procedures until all frequencies measured were complete.

Test Equipment

Please refer to the following test report:
(FCC ID: NKRCM9 tested by International Standards Laboratory in report: ISL-04LR018FC).

Test Setup Diagram

Please refer to the following test report:
(FCC ID: NKRCM9 tested by International Standards Laboratory in report: ISL-04LR018FC).

Environmental Conditions

Please refer to the following test report:
(FCC ID: NKRCM9 tested by International Standards Laboratory in report: ISL-04LR018FC).

Measurement Results

Please refer to the following test report:
(FCC ID: NKRCM9 tested by International Standards Laboratory in report: ISL-04LR018FC).