FCC Certification Test Report

SHENZHEN ZERO ZERO INFINITY TECHNOLOGY CO., LTD.

HOVER CAMERA

Model: HC-6428

FCC ID: 2AIDWHC-6428

REPORT# **16WS0525027F-01 Rev 0**
May 18, 2016

Prepared for:

Shenzhen Zero Zero Infinity Technology Co., Ltd.
1607 Innovation Park, High-Tech Park of Nanshan dist. Shenzhen

Prepared By:

Washington International Technology Limited

FCC / Verification Test Report

For the

SHENZHEN ZERO ZERO INFINITY TECHNOLOGY CO., LTD.

HOVER CAMERA

MODEL: HC-6428

WLL REPORT# **16WS0525027F-01 Rev 0**
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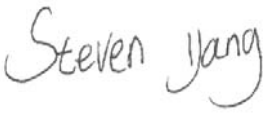
Prepared by:

Henry guo

Reviewed by:



Steven yang

Abstract

This report has been prepared on behalf of Shenzhen Zero Zero Infinity Technology Co., Ltd. to document compliance with the limits for a Class B digital device required under Part 15 (10/2015) of the FCC Rules and Regulations This Federal Communication Commission (FCC)Test Report documents the test configuration and test results for the Shenzhen Zero Zero Infinity Technology Co., Ltd. Hover Camera.

And Testing was performed by Compliance Certification Services (Shenzhen) Inc. has been accepted by the FCC, the FCC Registration Number is 441872.

The Shenzhen Zero Zero Infinity Technology Co., Ltd. Hover Camera complies with the requirements for a Class B device.

Revision History	Reason	Date
Rev 0	Initial Release	**May 18, 2016**

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1 Introduction

1.1 Compliance Statement

After the modifications listed in Section 2.7 were installed:

The Shenzhen Zero Zero Infinity Technology Co., Ltd. Hover Camera complied with the requirements for a Class B digital device under Part 15 (10/2015) of the FCC Rules and Regulations

1.2 Test Scope Summary

Tests for radiated and conducted emissions were performed. All measurements were performed according to the 2014 version of ANSI C63.4. The measurement equipment conforms to ANSI C63.2 Specifications for Electromagnetic Noise and Field Strength Instrumentation.

Test Specification	Specific Description	Date Completed	Result	Test location	Modifications (Y/N)
CFR47 Part 15.107	Class B Conducted Emissions – AC Power Ports	May 14, 2016	Complied	Compliance Certification Services (Shenzhen) Inc.	No
CFR47 Part 15.109	Class B Radiated Emissions	May 17, 2016	Complied	Compliance Certification Services (Shenzhen) Inc.	No

1.3 Contract Information

Customer: Shenzhen Zero Zero Infinity Technology Co., Ltd.

1607 Innovation Park, High-Tech Park of Nanshan dist. Shenzhen

1.4 Test and Support Personnel

Paul Pan Compliance Certification Services (Shenzhen) Inc.

No.10-1 Mingkeda Logistics Park, No.18 Huanguan South RD. Guan lan Town, Baoan Distr, Shenzhen, Guangdong, China.

Project Leader

1.5 Abbreviations

A	**A**mpere
ac	**a**lternating **c**urrent
AM	Amplitude Modulation
Amps	**Amp**ere**s**
b/s	**b**its per **s**econd
BW	**B**and**W**idth
CE	**C**onducted **E**mission
cm	**c**enti**m**eter
CW	**C**ontinuous **W**ave
dB	**d**eci**B**el
dc	**d**irect **c**urrent
EMI	**E**lectro**m**agnetic **I**nterference
EUT	**E**quipment **U**nder **T**est
FM	**F**requency **M**odulation
G	**g**iga - prefix for 10^9 multiplier
Hz	**H**ertz
IF	**I**ntermediate **F**requency
k	**k**ilo - prefix for 10^3 multiplier
LISN	**L**ine **I**mpedance **S**tabilization **N**etwork
M	**M**ega - prefix for 10^6 multiplier
m	**m**eter
µ	**m**icro - prefix for 10^{-6} multiplier
NB	**N**arrow**b**and
QP	**Q**uasi-**P**eak
RE	**R**adiated **E**missions
RF	**R**adio **F**requency
rms	**r**oot-**m**ean-**s**quare
SN	**S**erial **N**umber
S/A	**S**pectrum **A**nalyzer
V	**V**olt

2 Equipment Under Test

2.1 EUT Identification

The results obtained relate only to the item(s) tested.

Table 1: Overview of Hover Camera, Equipment Under Test

ITEM	DESCRIPTION
Manufacturer:	Shenzhen Zero Zero Infinity Technology Co., Ltd.
FCC ID Number	2AIDWHC-6428
Trade Mark:	Hover Camera
EUT Name:	Hover Camera
Model(s) Tested:	Hover Camera HC-6428 S/N: FFB2USM380072
EUT Specifications:	Primary Power (as tested): 7.4Vdc (Rechargeable LIPO Battery)
Adapter:	Model:HKA03612030-2A Input:100-240V~50/60Hz, 1.0A; Output:12Vdc/3.0A
Charging Dock:	Input:11-18Vdc; Output: 8.4Vdc
Sample Received Date:	Apr.29, 2016
Sample tested Date:	May 14, 2016~ May 18, 2016
Lowest Internal Frequency:	32.768KHz
Highest Internal Frequency:	2.3GHz
Equipment Emissions Class:	CLASS B
Software Version:	V3
Hardware Version:	V0.2

2.2 EUT Description

The Hover Camera is a small amateur unmanned aerial vehicle. Mobile phone and pad or other equipment by connecting it to Wi-Fi, it can photograph or 4k video recording. The Wi-Fi support IEEE 802.11 a /b/g/n protocol.

Product Name: Hover Camera

Model No. : HC-6428

Tested Model No.: HC-6428

EUT Rated Voltage: 7.4Vdc (Rechargeable LIPO Battery)

I/O Ports: USB*1;

2.3 Test Configuration

The Shenzhen Zero Zero Infinity Technology Co., Ltd. Hover Camera, Equipment Under Test (EUT), was operated form 7.4Vdc rechargeable LIPO battery Powered.

Adapter Charging Mode:

1. Setup the EUT and other the test equipment
2. wormy-up the EUT
3. All tests are carried out under adapter charging mode during the test.

Waiting Mode:

1. Setup the EUT
2. Warm up the EUT
3. All tests are carried out under waiting mode during the test.

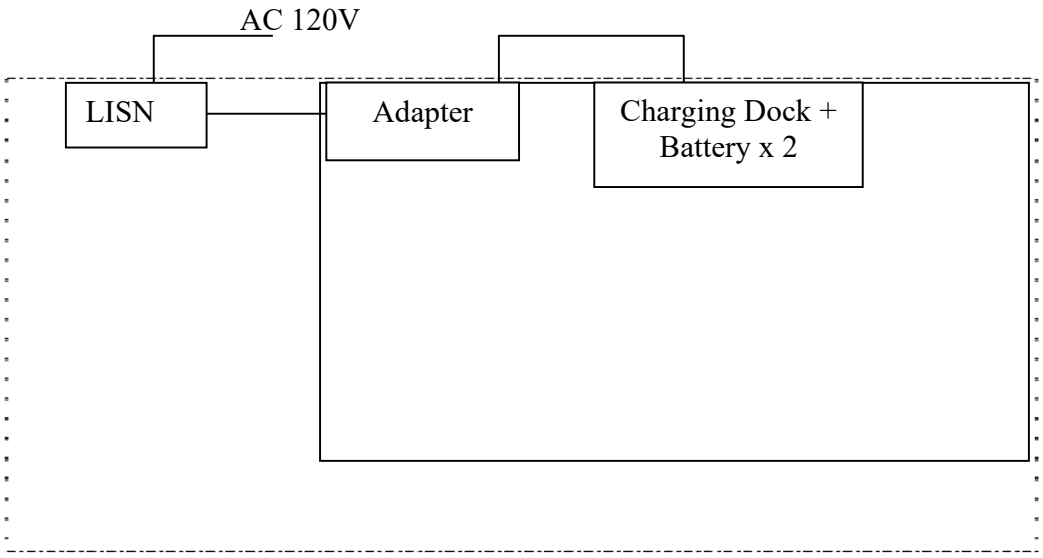
Hovering Mode:

1. Setup the EUT
2. Warm up the EUT
3. All tests are carried out under hovering mode during the test.

Copy Data Mode:

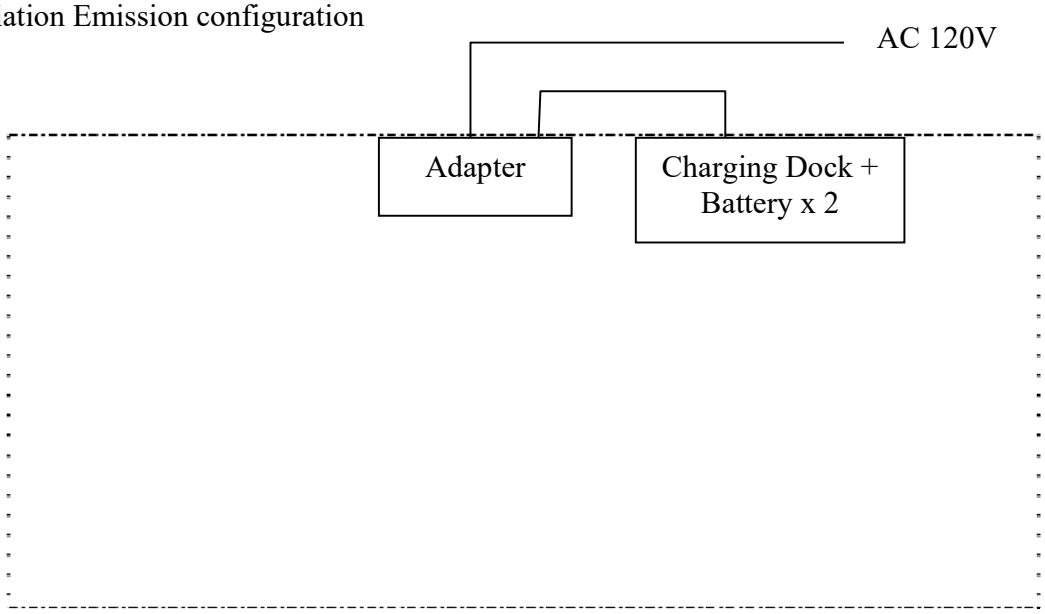
1. Setup the EUT and other the test equipment
2. Warm up the EUT
3. All tests are carried out under EUT of DDR and laptop copy data mode during the test.

Conducted Emission configuration

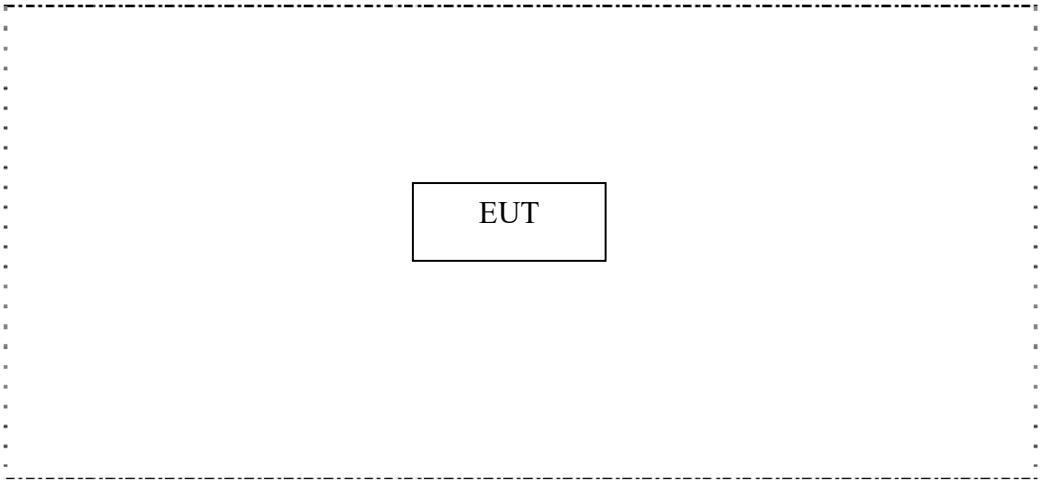


(Adapter Charging Mode)

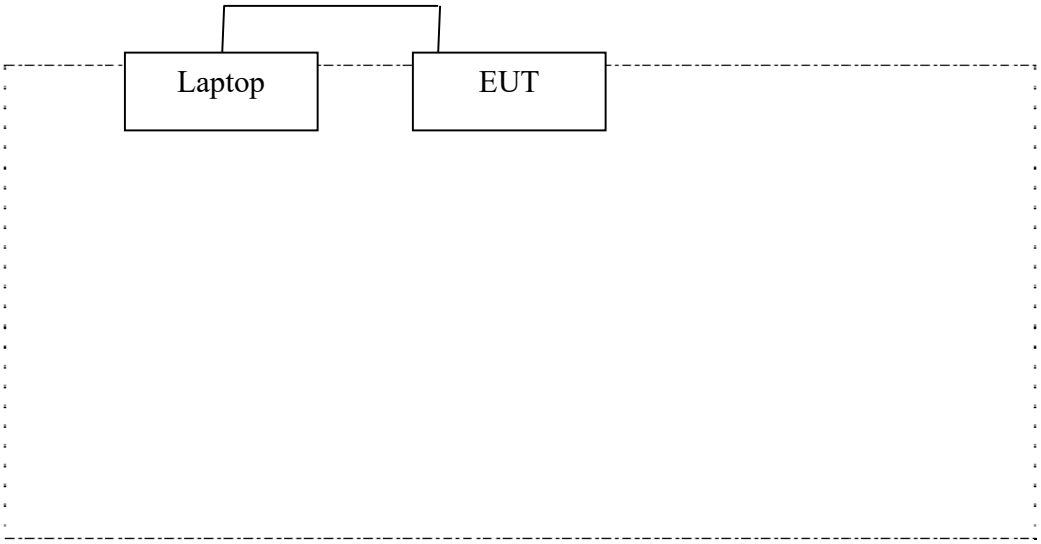
Radiation Emission configuration



(Adapter Charging Mode)



(Waiting and Hovering Mode)



(Copy Data Mode)

Figure 1: Test Configuration

2.4 Equipment Configuration

The EUT was set up as outlined in Figure 1. The EUT was comprised of the following equipment. (All Modules, PCBs, etc. listed were considered as part of the EUT, as tested.)

Table 2: Equipment Configuration

Name / Description	Model Number	Part Number	Serial Number	Revision
Hover Camera	HC-6428	/	FFB2USM380072	/
Adapter	HKA03612030-2A	/	/	/
Charging Dock	/	/	/	/

2.5 Support Equipment

The following support equipment was used during testing:

Table 3: Support Equipment

Radiation Emission

No.	Support Equipment	Model/Part Number	Serial Number
1	Laptop	Inspiron 15 5000 series	B3MY362

2.6 Interface Cables

Table 4: Interface Cables

Port Identification	Connector Type	Cable Length	Shielded (Y/N)	Termination Point
USB Cable	USB	0.55m	N	N/A
DC Cable	DC	1.5m	N	N/A

2.7 EUT Modifications

No modifications were performed in order to meet the test requirements:

2.8 Testing Algorithm

The Hover Camera was operated continuously by the test configuration of section 2.3.

During the test, the software provided by manufacturer transmitted the signal between the EUT and the USB cable.

Radiation Emission: 1. Adapter Charging Mode
2. Waiting Mode
3. Hovering Mode
4. Copy Data Mode

Worst case emission levels are provided in the test results data.

2.9 Test Location

All measurements herein were performed at and testing was performed by Compliance Certification Services (Shenzhen) Inc. has been accepted by the FCC, the FCC Registration Number is 441872.

2.10 Measurements

2.10.1 Measurement Method

All measurements herein were performed according to the 2014 version of ANSI C63.4. The measurement equipment conforms to ANSI C63.2 Specifications for Electromagnetic Noise and Field Strength Instrumentation. Calibration checks are made periodically to verify proper performance of the measuring instrumentation.

2.11 Measurement Uncertainty

All results reported herein relate only to the equipment tested. The basis for uncertainty calculation uses ANSI/NCSL Z540-2-1997 with a type B evaluation of the standard uncertainty. Elements contributing to the standard uncertainty are combined using the method described in Equation 1 to arrive at the total standard uncertainty. The standard uncertainty is multiplied by the coverage factor to determine the expanded uncertainty which is generally accepted for use in commercial, industrial, and regulatory applications and when health and safety are concerned (see Equation 2). A coverage factor was selected to yield a 95% confidence in the uncertainty estimation.

Equation 1: Standard Uncertainty

$$u_c = \pm\sqrt{\frac{a^2}{div_a{}^2} + \frac{b^2}{div_b{}^2} + \frac{c^2}{div_c{}^2} + ...}$$

where u_c = standard uncertainty

a, b, c,.. = individual uncertainty elements

$div_{a,\ b,\ c}$ = the individual uncertainty element divisor based on the probability distribution

divisor = 1.732 for rectangular distribution

divisor = 2 for normal distribution

divisor = 1.414 for trapezoid distribution

Equation 2: Expanded Uncertainty

$$U = ku_c$$

where U = expanded uncertainty

k = coverage factor

k ≤ 2 for 95% coverage (ANSI/NCSL Z540-2 Annex G)

u_c = standard uncertainty

The measurement uncertainty complies with the maximum allowed uncertainty from CISPR 16-4-2. Measurement uncertainty is not used to adjust the measurements to determine compliance. The expanded uncertainty values for the various scopes in the WLL accreditation are provided in Table 5 below.

Table 5: Expanded Uncertainty List

Scope	Expanded Uncertainty
Uncertainty for Radiation Emission test in 3m chamber	2.6dB(30~200MHz, Polarize: H)
	2.6dB(30~200MHz, Polarize: V)
	3.0dB(200M~1GHz, Polarize: H)
	2.8dB(200M~1GHz, Polarize: V)
Uncertainty for Radiation Emission test in 3m chamber (1GHz-18GHz)	6.3dB (1~6GHz, Distance: 3m)
	5.7dB (6~18GHz, Distance: 3m)
Uncertainty for Conduction emission test	2.63dB
Uncertainty for test site temperature and humidity	0.6℃
	3%

3 Test Results

3.1 Conducted Emissions

3.1.1 Requirements

Test Arrangement: Table Top

Compliance Standard: FCC Part 15 (10/2015), Class B

FCC Compliance Limits		
Frequency	**Quasi-peak**	**Average**
0.15-0.5MHz	66 to 56dBμV	56 to 46dBμV
0.5 to 5MHz	56dBμV	46dBμV
0.5-30MHz	60dBμV	50dBμV

3.1.2 Test Equipment

Item	Instrument	Manufacturer	Type No./Serial No	Last Cal.	calibration interval
1	EMI Test Receiver	R & S	ESCI / 100783	Feb.22, 2016	1Year
2	L.I.S.N	R & S	ENV216/101543-WX	Feb.22, 2016	1Year
3	System Software	FARAD	EZ-EMC/CCS-3A1-CE	/	/

3.1.3 Test Procedure

The requirements of FCC Part 15 (10/2015) call for the EUT to be placed on an 80 cm high 1 X 1.5 m non-conductive table above a ground plane. Power to the EUT was provided through a Solar Corporation 50 Ω/50 μH Line Impedance Stabilization Network bonded to a 3 X 2 meter ground plane. The LISN has its AC input supplied from a filtered AC power source. Power was supplied to the peripherals through a second LISN. The peripherals were placed on the table in accordance with ANSI C63.4-2014. Power and data cables were moved about to obtain maximum emissions.

The 50 Ω output of the LISN was connected to the input of the spectrum analyzer and the emissions in the frequency range of 150 kHz to 30 MHz were measured. The detector function was set to quasi-peak, peak, or average as appropriate, and the resolution bandwidth during testing was at least 9 kHz, with all post-detector filtering no less than 10 times the resolution bandwidth. For average measurements the post-detector filter was set to 10 Hz.

At frequencies where quasi-peak or peak measurements comply with the average limit, no average measurements need be performed.

3.1.4 Conducted Data Reduction and Reporting

At frequencies where quasi-peak or peak measurements comply with the average limit, no average measurements need be performed. The Conducted emissions level to be compared to the FCC limit is calculated as shown in the following example.

Example:

Spectrum Analyzer Voltage: Level dBµV

LISN Correction Factor: Transd dB

3.1.5 Test Data

The EUT Adapter complied with the Class B Conducted Emissions requirements. Table 6 provides the test results for phase and neutral line power line conducted emissions.

3.1.6 Areas of Concern

None.

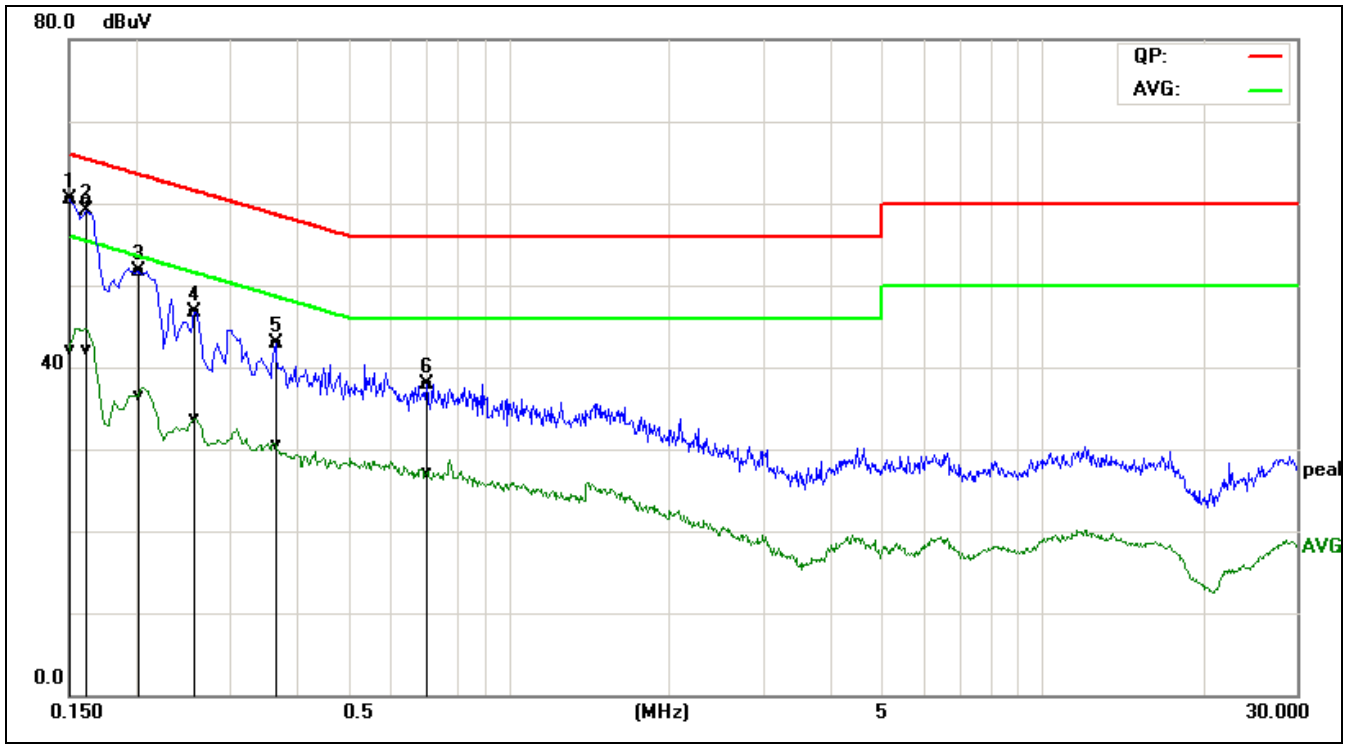
Test Engineer(s): Paul Pan

Test Date(s): May 14, 2016

Test Location: Compliance Certification Services (Shenzhen) Inc.

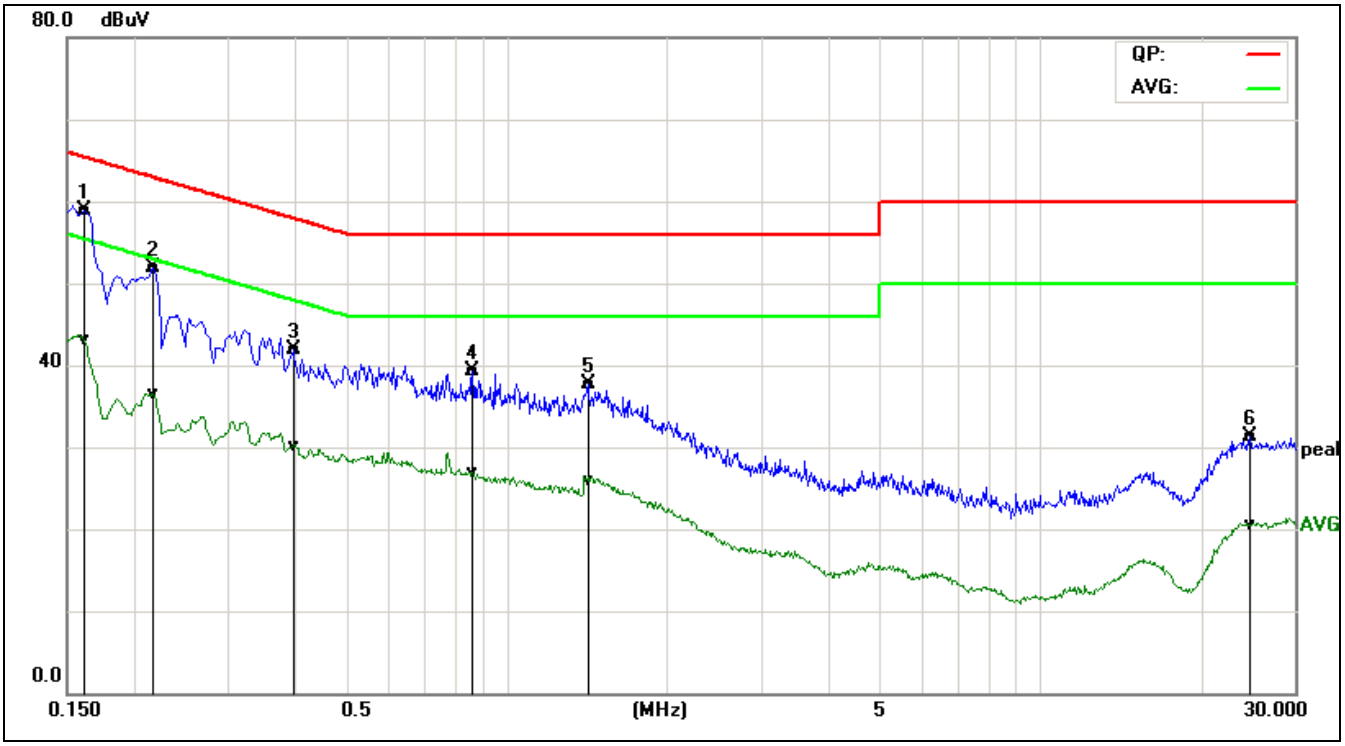
Table 6: Conducted Emission Test Data

Full load, L line



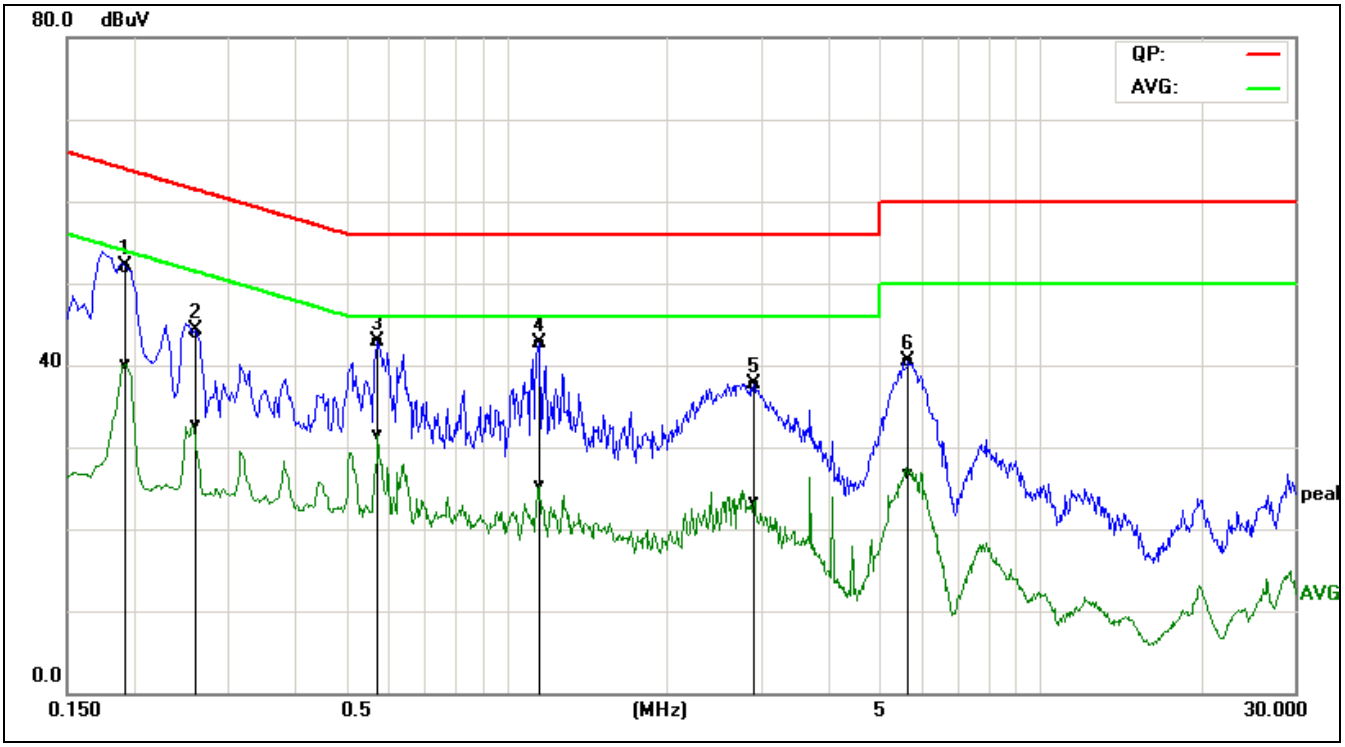
No.	Frequency	QuasiPeak reading	Average reading	Correction factor	QuasiPeak result	Average result	QuasiPeak limit	Average limit	QuasiPeak margin	Average margin	Remark
	(MHz)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	(dB)	
1	0.1500	50.80	32.30	9.78	60.58	42.08	65.99	56.00	-5.41	-13.92	Pass
2*	0.1624	50.80	32.30	9.78	60.58	42.08	65.34	55.34	-4.76	-13.26	Pass
3	0.2020	41.89	26.81	9.79	51.68	36.60	63.52	53.53	-11.84	-16.93	Pass
4	0.2580	36.95	23.95	9.81	46.76	33.76	61.49	51.50	-14.73	-17.74	Pass
5	0.3660	33.11	20.57	9.84	42.95	30.41	58.59	48.59	-15.64	-18.18	Pass
6	0.7019	28.11	17.25	9.89	38.00	27.14	56.00	46.00	-18.00	-18.86	Pass

Full load, N line



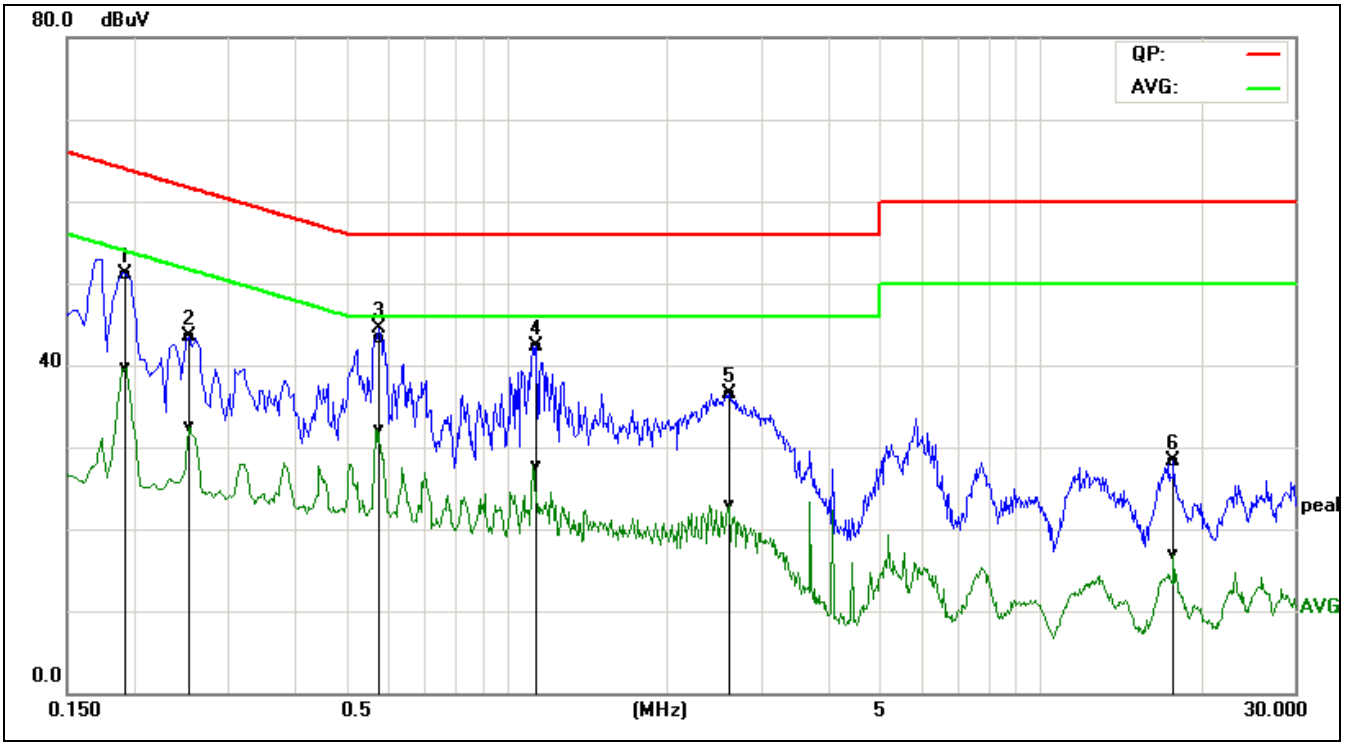
No.	Frequency	QuasiPeak reading	Average reading	Correction factor	QuasiPeak result	Average result	QuasiPeak limit	Average limit	QuasiPeak margin	Average margin	Remark
	(MHz)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	(dB)	
1*	0.1620	48.99	33.21	9.88	58.87	43.09	65.36	55.36	-6.49	-12.27	Pass
2	0.2180	42.05	26.63	9.89	51.94	36.52	62.89	52.89	-10.95	-16.37	Pass
3	0.3980	31.99	20.32	9.88	41.87	30.20	57.89	47.90	-16.02	-17.70	Pass
4	0.8660	29.46	17.01	9.90	39.36	26.91	56.00	46.00	-16.64	-19.09	Pass
5	1.4220	27.81	15.98	9.92	37.73	25.90	56.00	46.00	-18.27	-20.10	Pass
6	24.7540	21.00	10.11	10.38	31.38	20.49	60.00	50.00	-28.62	-29.51	Pass

Copy Data, L line



No.	Frequency	QuasiPeak reading	Average reading	Correction factor	QuasiPeak result	Average result	QuasiPeak limit	Average limit	QuasiPeak margin	Average margin	Remark
	(MHz)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	(dB)	
1*	0.1940	42.16	30.23	9.79	51.95	40.02	63.86	53.86	-11.91	-13.84	Pass
2	0.2580	34.10	22.99	9.77	43.87	32.76	61.49	51.50	-17.62	-18.74	Pass
3	0.5740	33.21	21.91	9.68	42.89	31.59	56.00	46.00	-13.11	-14.41	Pass
4	1.1539	32.85	15.53	9.79	42.64	25.32	56.00	46.00	-13.36	-20.68	Pass
5	2.9020	28.01	13.57	9.75	37.76	23.32	56.00	46.00	-18.24	-22.68	Pass
6	5.6660	30.73	16.87	9.78	40.51	26.65	60.00	50.00	-19.49	-23.35	Pass

Copy Data, N line



No.	Frequency	QuasiPeak reading	Average reading	Correction factor	QuasiPeak result	Average result	QuasiPeak limit	Average limit	QuasiPeak margin	Average margin	Remark
	(MHz)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	(dB)	
1	0.1940	41.39	29.89	9.79	51.18	39.68	63.86	53.86	-12.68	-14.18	Pass
2	0.2540	33.75	22.82	9.77	43.52	32.59	61.62	51.63	-18.10	-19.04	Pass
3*	0.5700	33.64	22.49	9.68	43.32	32.17	56.00	46.00	-12.68	-13.83	Pass
4	1.1180	32.44	18.00	9.80	42.24	27.80	56.00	46.00	-13.76	-18.20	Pass
5	2.6099	26.77	13.22	9.74	36.51	22.96	56.00	46.00	-19.49	-23.04	Pass
6	17.8420	18.51	7.26	9.72	28.23	16.98	60.00	50.00	-31.77	-33.02	Pass

3.2 Radiated Emissions

3.2.1 Requirements

Test Arrangement: Table Top

Compliance Standard: FCC Part 15 (10/2015), Class B

FCC Compliance Limits	
Frequency	**Limits**
0.009-0.490 (300 meter)	2400/F(kHz) µV/m
0.490-1.705 (30 meter)	24000/F(kHz) µV/m
1.705-30.0 (30 meter)	30 µV/m
30-88 MHz (3 meter)	100 µV/m
88-216 MHz (3 meter)	150 µV/m
216-960 MHz (3 meter)	200 µV/m
>960MHz (3 meter)	500 µV/m

3.2.2 Test Equipment

Radiation Emission

Item	Instrument	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	PSA Series Spectrum Analyzer	Agilent	E4446A	US44300399	Feb.21,16	1 Year
2	Turn Table	N/A	N/A	N/A	N.C.R	N.C.R
3	Controller	Sunol Sciences	SC104V	022310-1	N.C.R	N.C.R
4	Controller	CT	N/A	N/A	N.C.R	N.C.R
5	Bilog Antenna	SCHAFFNER	CBL6143	5063	Feb.22,16	1 Year
6	Horn Antenna	SCHWARZBECK	BBHA9120	D286	Feb.21,16	1 Year
7	Loop Antenna	COM-POWER	AL-130	121044	Feb.21,16	1 Year
8	High Noise Amplifier	Agilent	8449B	3008A01838	Feb.22,16	1 Year
9	Horn Antenna	Schwarzbeck	BBHA9120	D286	Feb.22,16	1 Year
10	Temp. / Humidity Meter	Anymetre	JR913	N/A	Feb.22,16	1 Year

11	Antenna Tower	SUNOL	TLT2	N/A	N.C.R	N.C.R
12	Test S/W	FARAO	LZ-RF / CCS-SZ-3A2			

3.2.3 Test Procedure

The requirements of FCC Part 15 (10/2015) call for the EUT to be placed on an 80 cm high 1 X 1.5 meters non-conductive motorized turntable for radiated testing on a 10-meter open field test site. The emissions from the EUT were measured continuously at every azimuth by rotating the turntable. Bi-conical and log periodic broadband antennas were mounted on an antenna mast to determine the height of maximum emissions. The height of the antenna was varied between 1 and 4 meters. The output of the antenna was connected to the input of the spectrum analyzer and the emissions in the frequency range of 30 MHz to 1 GHz were measured. The peripherals were placed on the table in accordance with ANSI C63.4-2014. Cables were varied in position to produce maximum emissions. Both the horizontal and vertical field components were measured.

The output from the antenna was connected, via a preamplifier, to the input of the spectrum analyzer. The detector function was set to quasi-peak or peak, as appropriate. Above 1GHz average measurement are recorded. The measurement bandwidth of the spectrum analyzer system was set to at least 120 kHz, with all post-detector filtering no less than 10 times the measurement bandwidth. Frequencies above 1GHz were performed using a measurement bandwidth of 1MHz with a video bandwidth setting of 10 Hz for the average measurement.

3.2.4 Radiated Data Reduction and Reporting

To convert the raw spectrum analyzer radiated data into a form that can be compared with the FCC limits, it is necessary to account for various calibration factors that are supplied with the antennas and other measurement accessories. These factors are included into the antenna factor (AF) column of the table and in the cable factor (CF) column of the table. The AF (in dB/m) and the CF (in dB) is algebraically added to the raw Spectrum Analyzer Voltage in dBµV to obtain the Radiated Electric Field in dBµV/m. This logarithm amplitude is converted to a linear amplitude, then compared to the FCC limit. Example:

Spectrum Analyzer Voltage: VdBµV

Antenna Correction Factor: dB/m

Electric Field: EdBµV/m = V dBµV + AFdB/m + CFdB - *GdB*

To convert to linear units of measure: EdBV/m/20 Inv log

3.2.5 Test Data

The EUT complied with the Class B Radiated Emissions requirements. Table 7 provides the test results for radiated conducted emissions.

Test Engineer(s): Paul Pan

Test Date(s): May 17, 2016

Test Location: Compliance Certification Services (Shenzhen) Inc.

Table 7: Radiated Emission Test Data

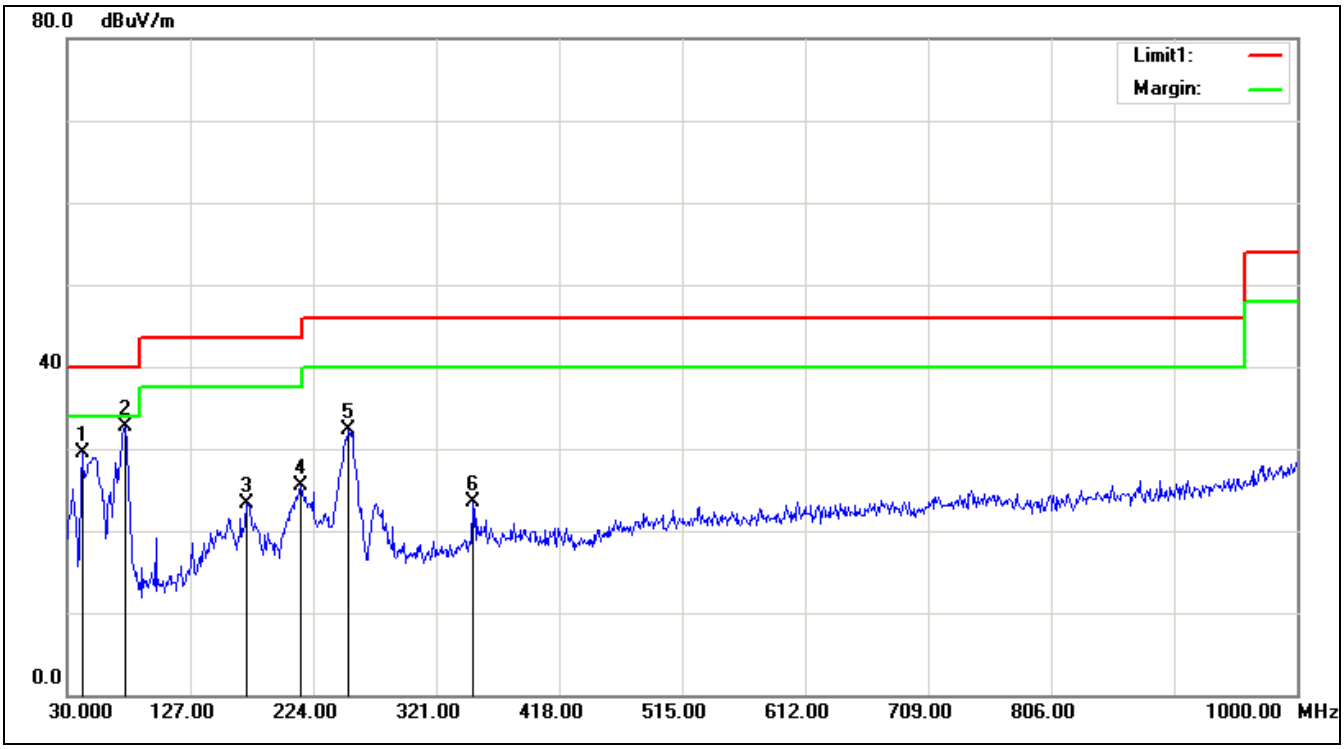
Radiated Emission Test Data (Below 30 MHz)

The amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required to be report.

Radiated Emission Test Data (30 MHz~1000MHz)

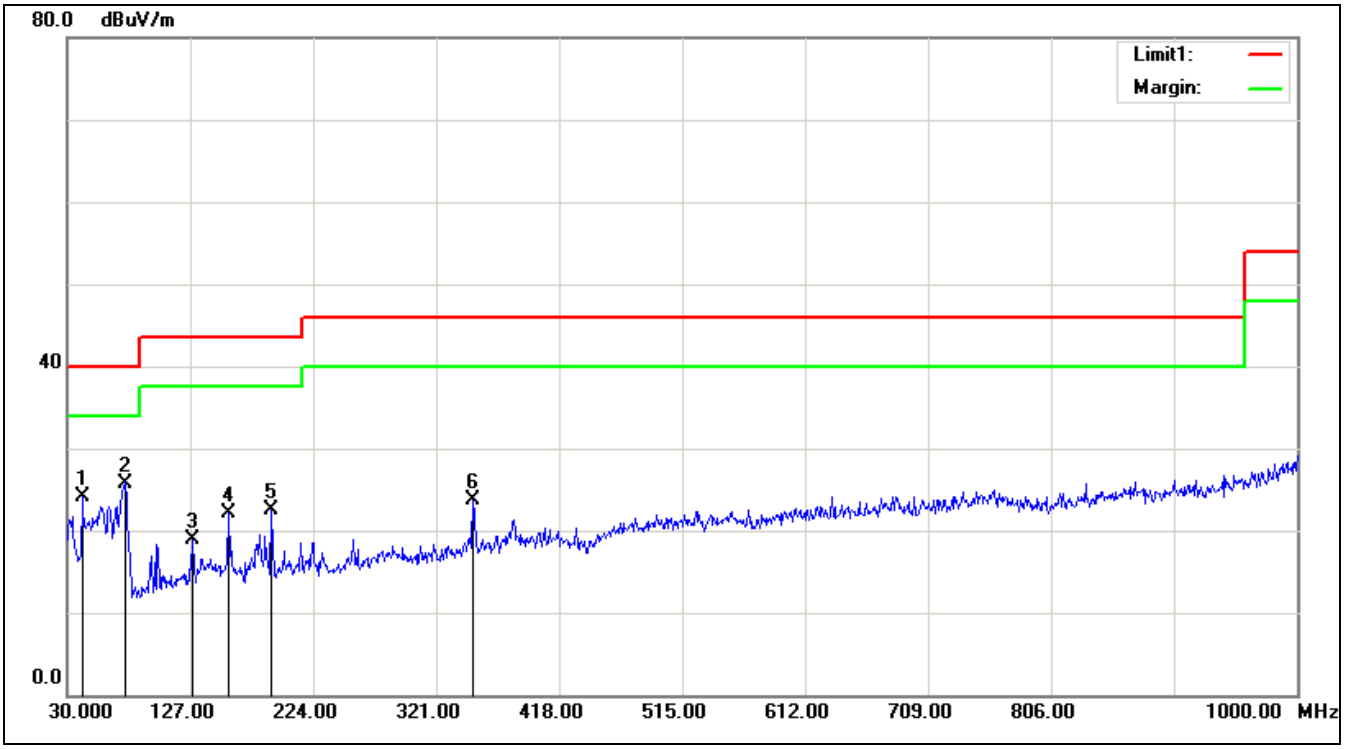
Test Mode: Adapter Charging Mode

Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	41.6400	41.03	-11.44	29.59	40.00	-10.41	QP
2*	75.5900	48.10	-15.47	32.63	40.00	-7.37	QP
3	171.6200	36.29	-12.92	23.37	43.50	-20.13	QP
4	214.3000	36.64	-11.20	25.44	43.50	-18.06	QP
5	252.1300	43.16	-10.78	32.38	46.00	-13.62	QP
6	350.1000	32.93	-9.38	23.55	46.00	-22.45	QP

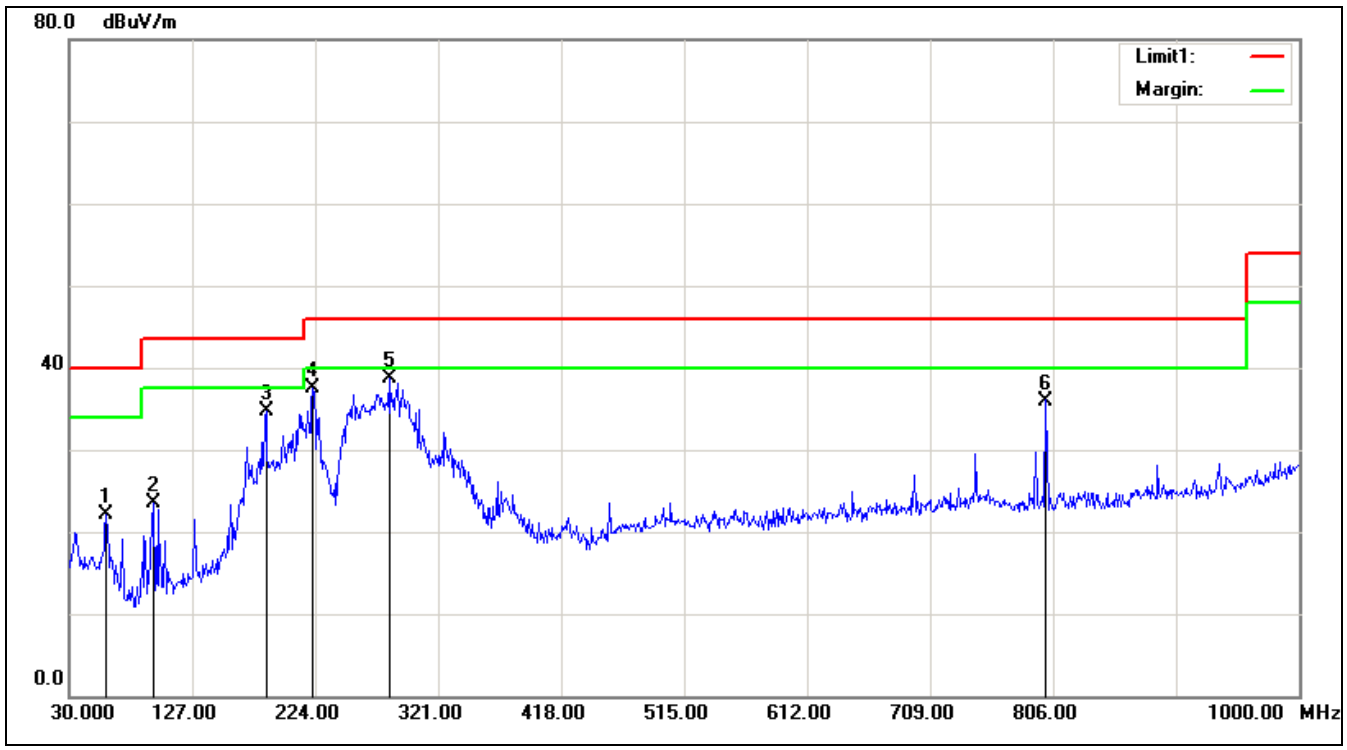
Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	41.6400	35.49	-11.44	24.05	40.00	-15.95	QP
2*	75.5900	41.27	-15.47	25.80	40.00	-14.20	QP
3	128.9400	31.43	-12.54	18.89	43.50	-24.61	QP
4	157.0700	33.89	-11.79	22.10	43.50	-21.40	QP
5	191.0200	35.40	-12.88	22.52	43.50	-20.98	QP
6	350.1000	33.02	-9.38	23.64	46.00	-22.36	QP

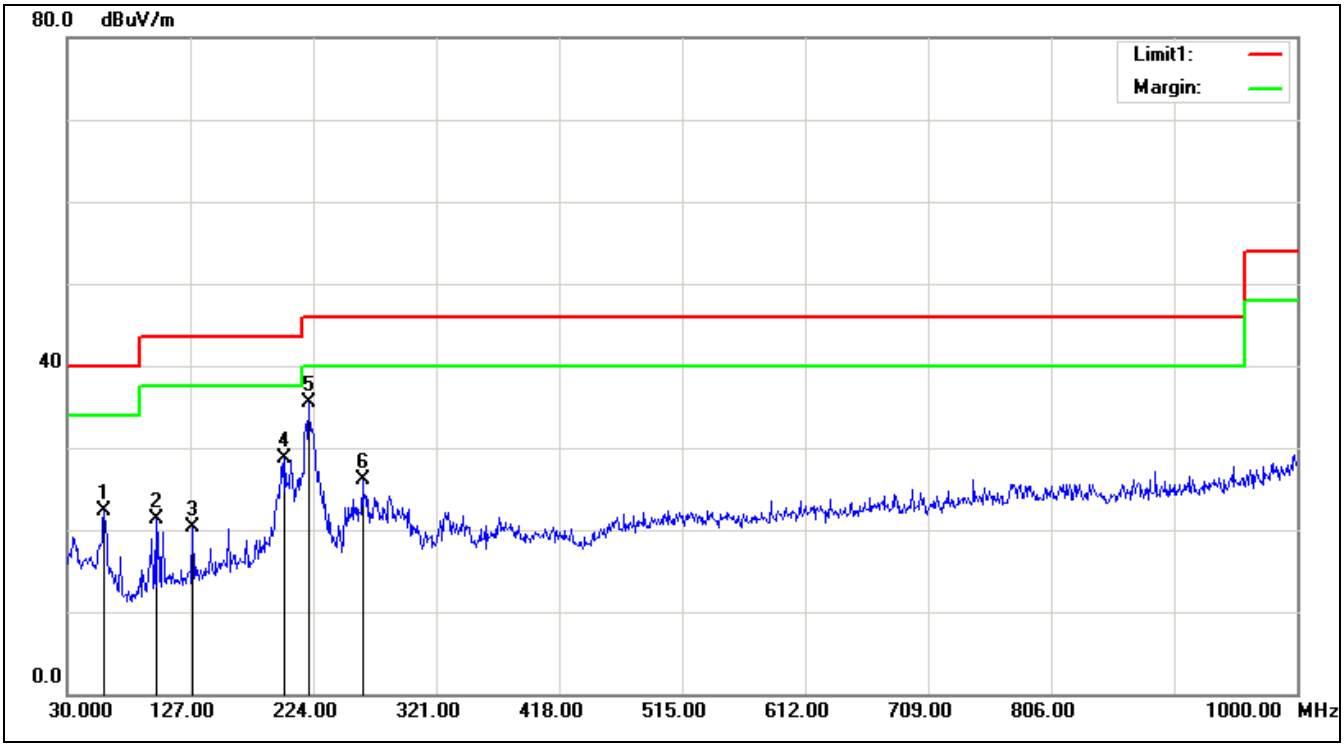
Test Mode: Waiting Mode

Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	59.1000	35.25	-13.18	22.07	40.00	-17.93	QP
2	96.9300	37.98	-14.42	23.56	43.50	-19.94	QP
3	185.2000	48.05	-13.34	34.71	43.50	-8.79	QP
4	222.0600	48.35	-10.80	37.55	46.00	-8.45	QP
5*	282.2000	48.40	-9.73	38.67	46.00	-7.33	QP
6	800.1800	40.13	-4.13	36.00	46.00	-10.00	QP

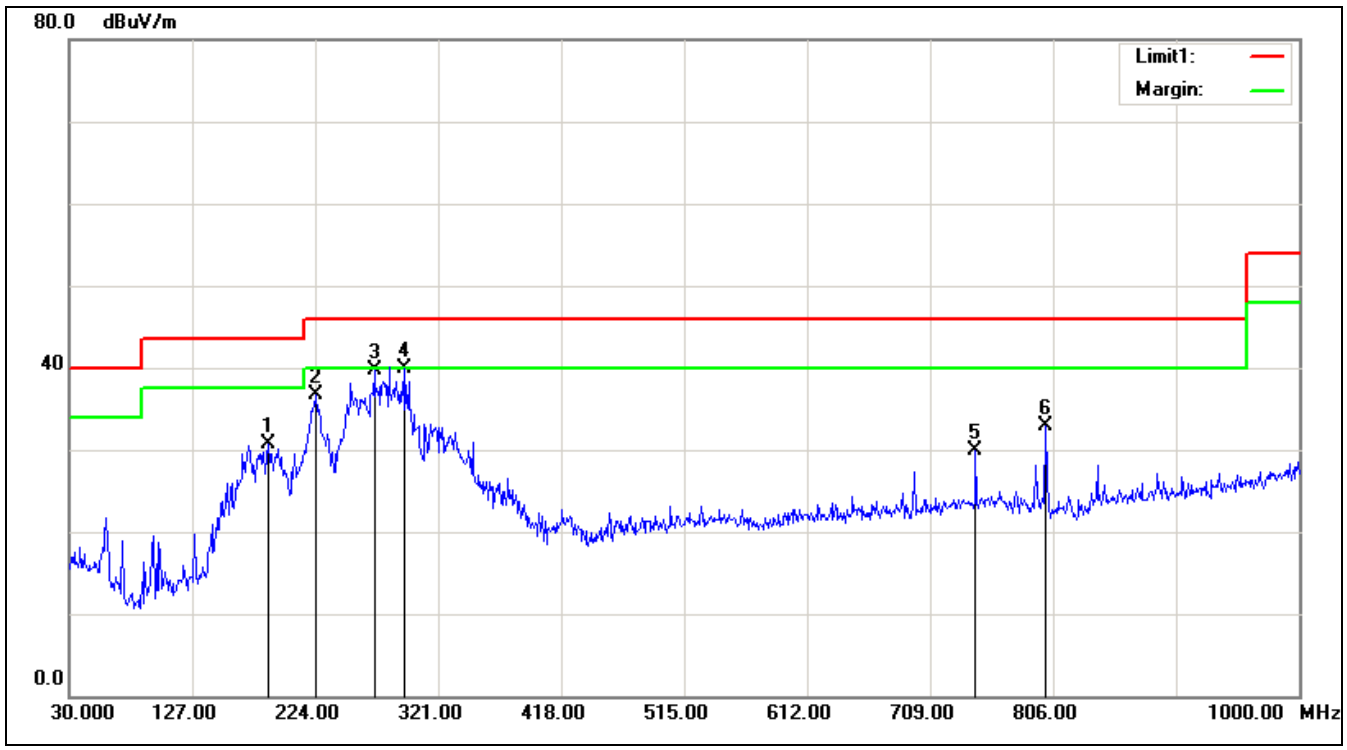
Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	59.1000	35.53	-13.18	22.35	40.00	-17.65	QP
2	99.8400	35.52	-14.13	21.39	43.50	-22.11	QP
3	128.9400	32.75	-12.54	20.21	43.50	-23.29	QP
4	201.6900	40.86	-12.06	28.80	43.50	-14.70	QP
5*	220.1200	46.22	-10.80	35.42	46.00	-10.58	QP
6	262.8000	36.67	-10.56	26.11	46.00	-19.89	QP

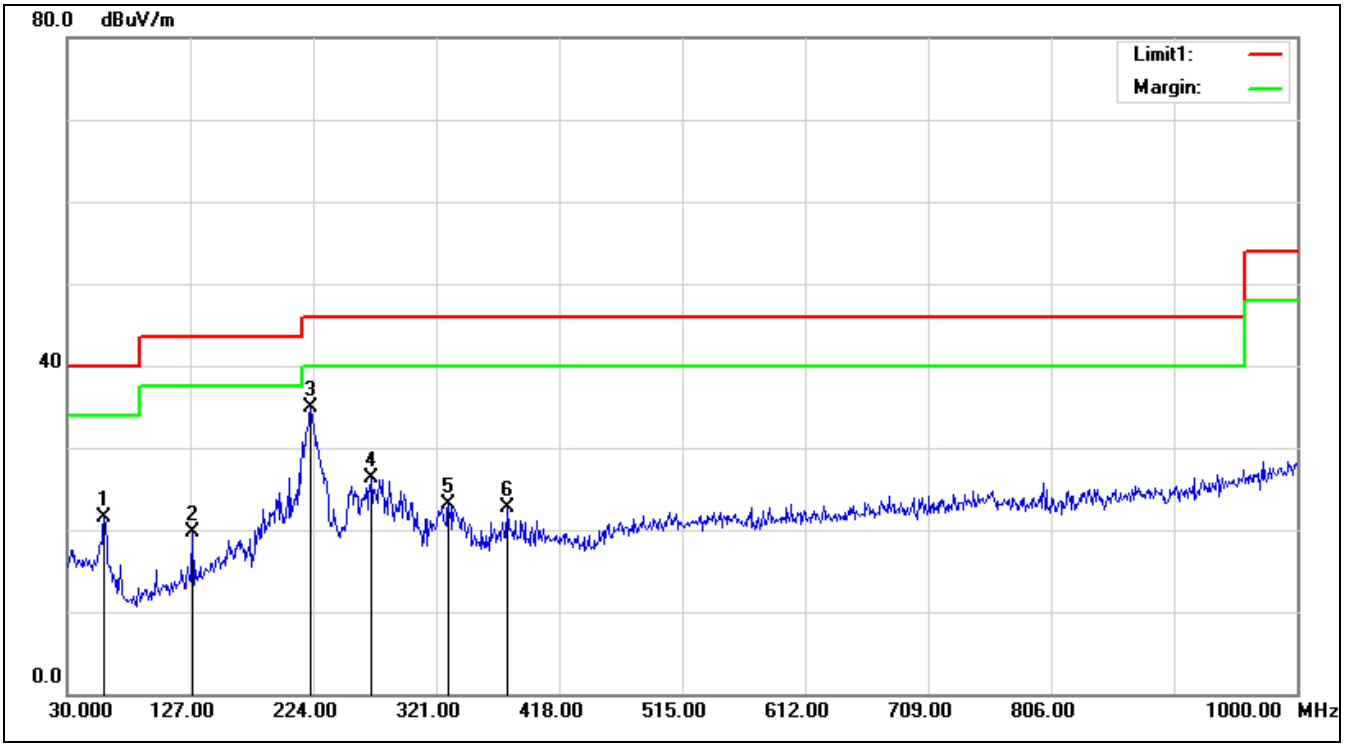
Test Mode: Hovering Mode

Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	187.1400	43.93	-13.19	30.74	43.50	-12.76	QP
2	224.9700	47.55	-10.81	36.74	46.00	-9.26	QP
3	270.5600	49.91	-10.16	39.75	46.00	-6.25	QP
4*	294.8100	49.80	-9.93	39.87	46.00	-6.13	QP
5	744.8900	33.50	-3.55	29.95	46.00	-16.05	QP
6	800.1800	36.97	-4.13	32.84	46.00	-13.16	QP

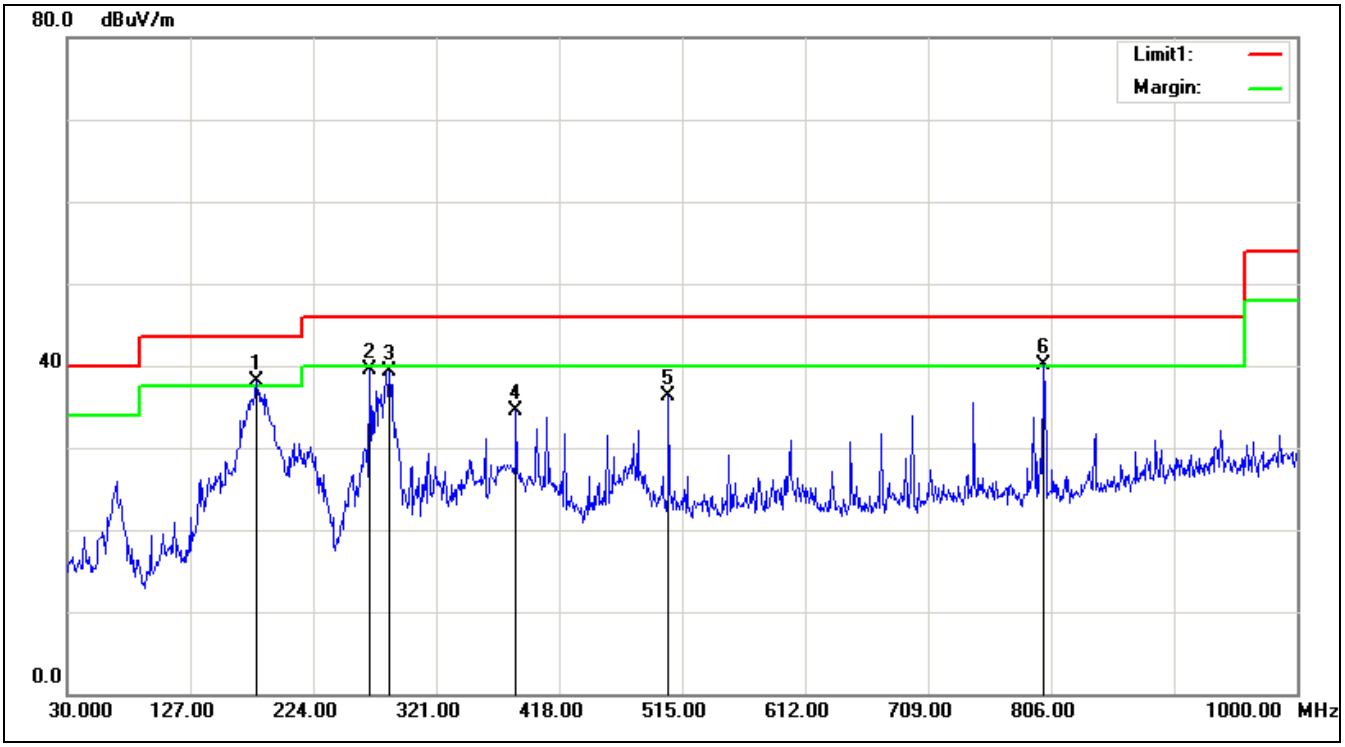
Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	59.1000	34.59	-13.18	21.41	40.00	-18.59	QP
2	128.9400	32.30	-12.54	19.76	43.50	-23.74	QP
3*	222.0600	45.77	-10.80	34.97	46.00	-11.03	QP
4	269.5900	36.54	-10.21	26.33	46.00	-19.67	QP
5	330.7000	32.83	-9.72	23.11	46.00	-22.89	QP
6	377.2600	31.09	-8.45	22.64	46.00	-23.36	QP

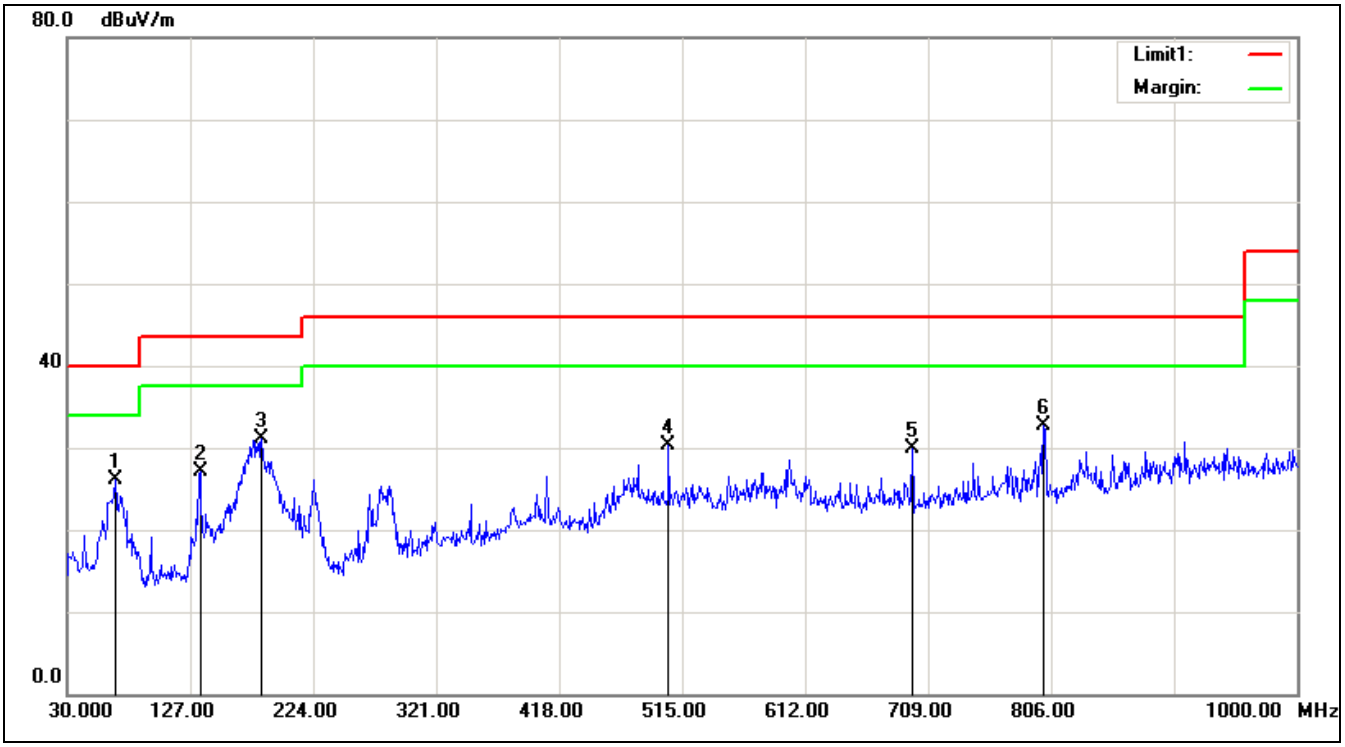
Test Mode: Copy Data Mode

Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1*	179.3800	51.80	-13.69	38.11	43.50	-5.39	QP
2	268.6200	49.85	-10.26	39.59	46.00	-6.41	QP
3	284.1400	49.07	-9.76	39.31	46.00	-6.69	QP
4	384.0500	42.87	-8.36	34.51	46.00	-11.49	QP
5	504.3300	43.12	-6.85	36.27	46.00	-9.73	QP
6!	800.1800	44.27	-4.13	40.14	46.00	-5.86	QP

Vertical

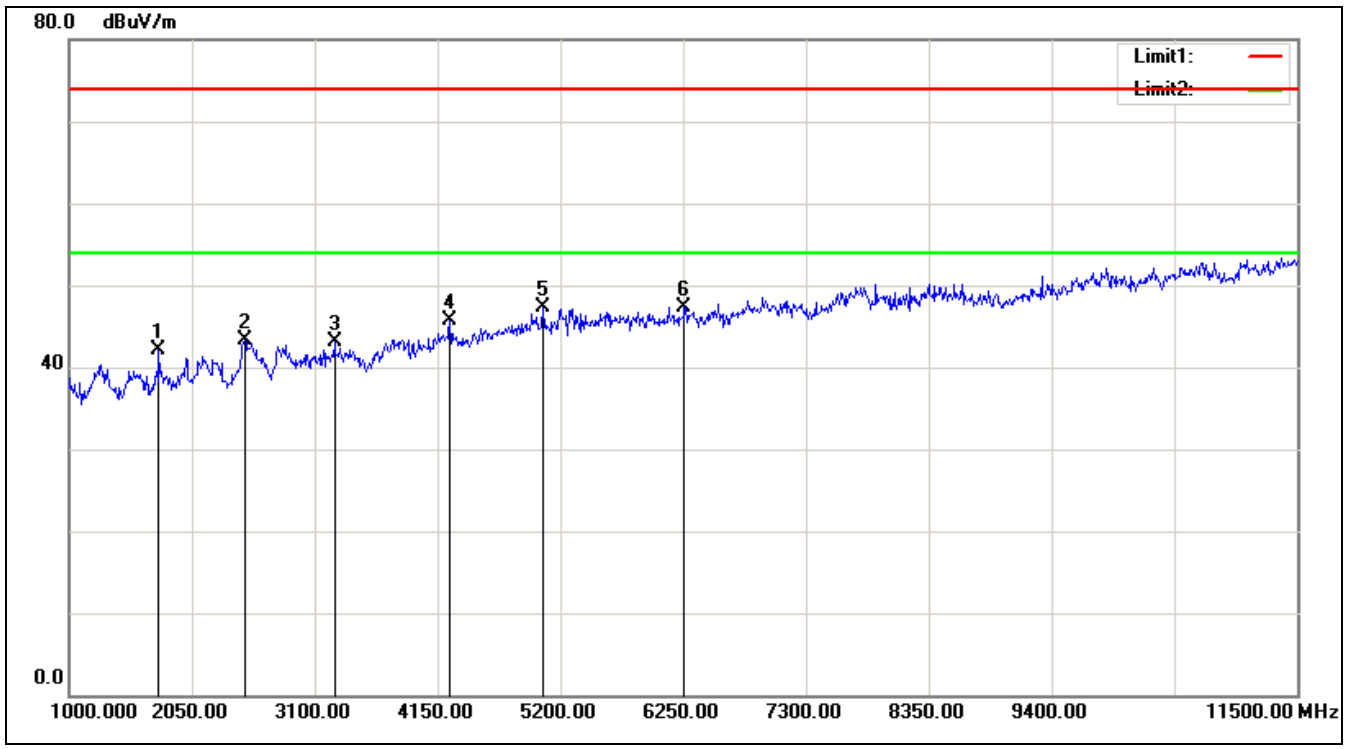


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	67.8300	40.41	-14.39	26.02	40.00	-13.98	QP
2	134.7600	39.27	-12.24	27.03	43.50	-16.47	QP
3*	183.2600	44.55	-13.49	31.06	43.50	-12.44	QP
4	504.3300	37.17	-6.85	30.32	46.00	-15.68	QP
5	696.3900	34.59	-4.75	29.84	46.00	-16.16	QP
6	800.1800	36.75	-4.13	32.62	46.00	-13.38	QP

Radiated Emission Test Data (Above 1GHz)

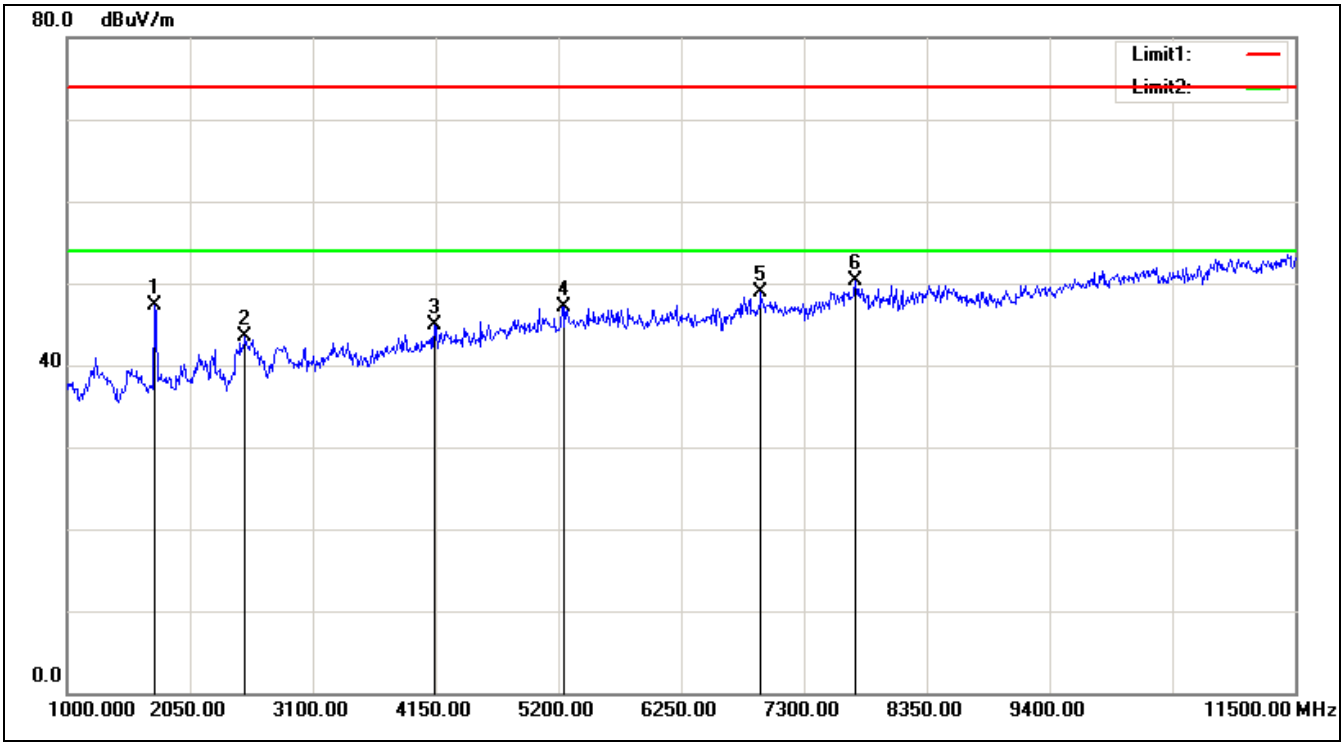
Test Mode: Waiting Mode

Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1766.500	48.51	-6.34	42.17	74.00	-31.83	peak
2	2501.500	45.56	-2.26	43.30	74.00	-30.70	peak
3	3268.000	43.99	-0.91	43.08	74.00	-30.92	peak
4	4255.000	43.26	2.49	45.75	74.00	-28.25	peak
5*	5053.000	42.22	5.07	47.29	74.00	-26.71	peak
6	6260.500	40.74	6.50	47.24	74.00	-26.76	peak

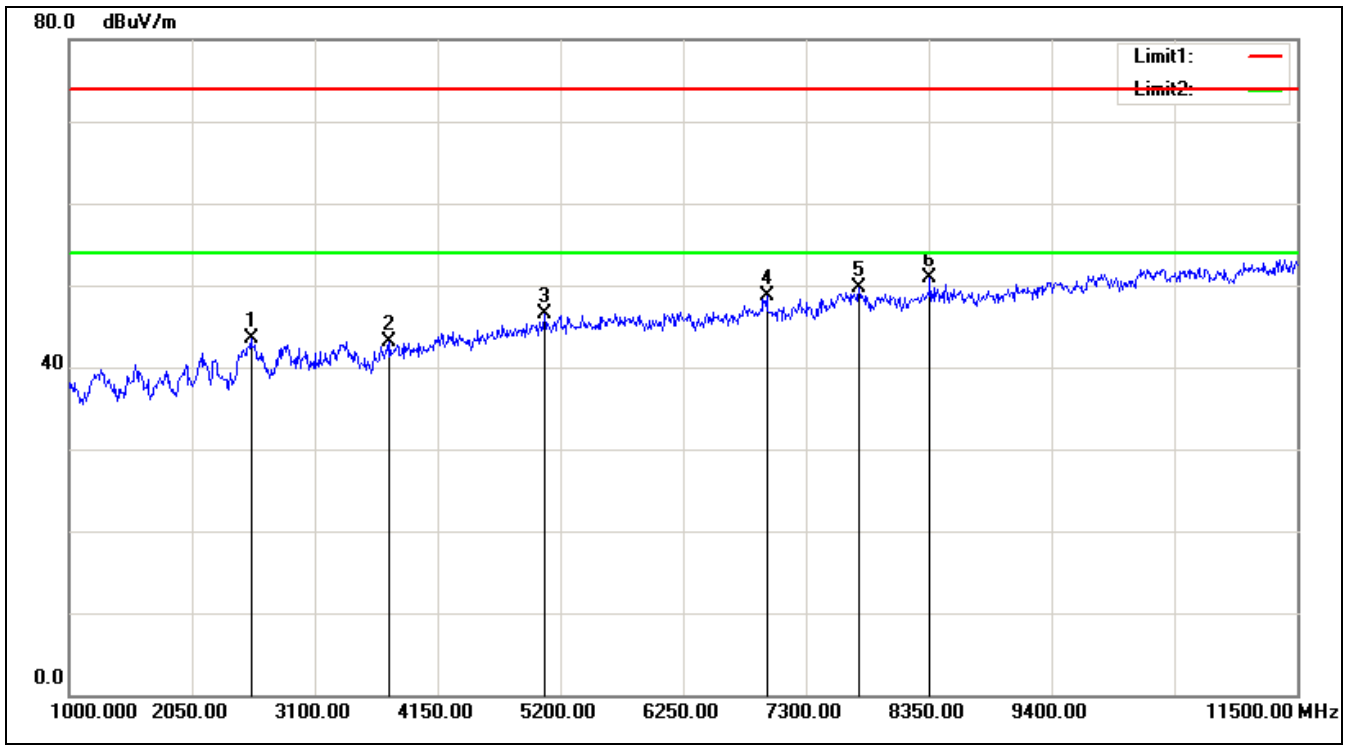
Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1745.500	53.60	-6.39	47.21	74.00	-26.79	peak
2	2522.500	45.64	-2.22	43.42	74.00	-30.58	peak
3	4139.500	42.82	2.08	44.90	74.00	-29.10	peak
4	5242.000	41.78	5.41	47.19	74.00	-26.81	peak
5	6932.500	41.35	7.59	48.94	74.00	-25.06	peak
6*	7741.000	41.07	9.14	50.21	74.00	-23.79	peak

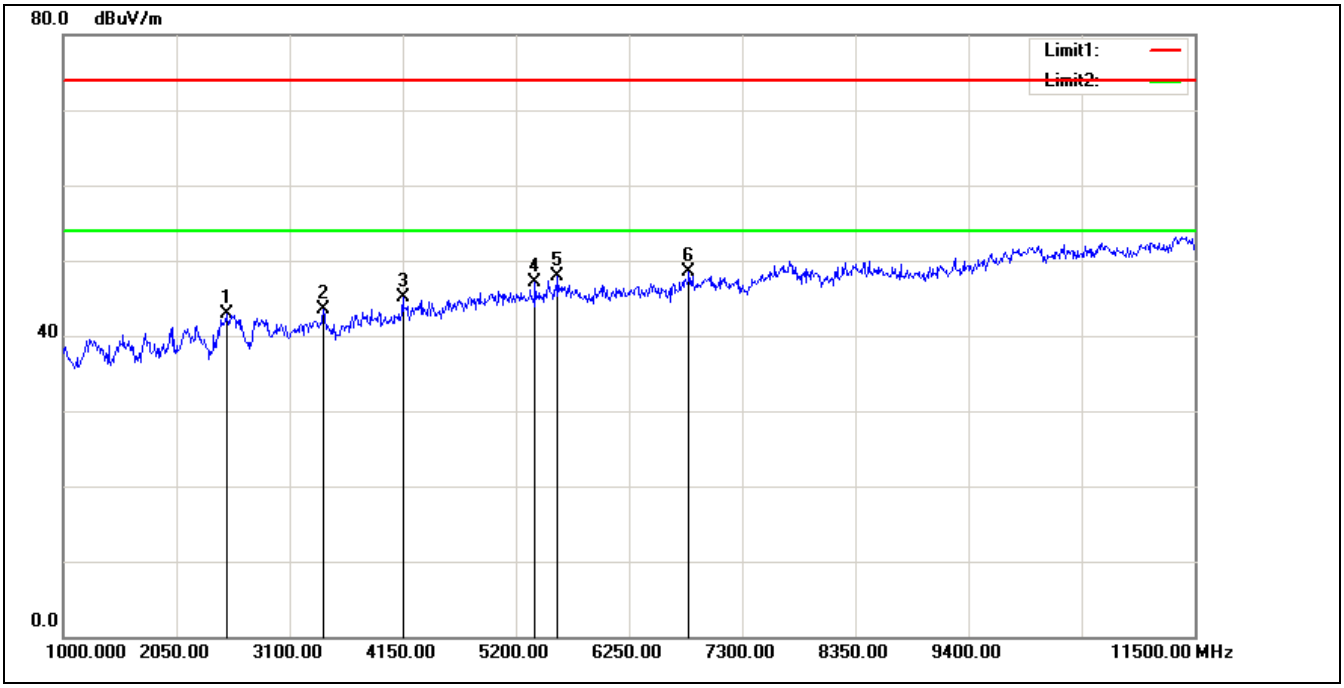
Test Mode: Hovering Mode

Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2554.000	45.60	-2.16	43.44	74.00	-30.56	peak
2	3740.500	42.61	0.49	43.10	74.00	-30.90	peak
3	5063.500	41.36	5.09	46.45	74.00	-27.55	peak
4	6964.000	41.02	7.64	48.66	74.00	-25.34	peak
5	7751.500	40.56	9.17	49.73	74.00	-24.27	peak
6*	8360.500	41.54	9.45	50.99	74.00	-23.01	peak

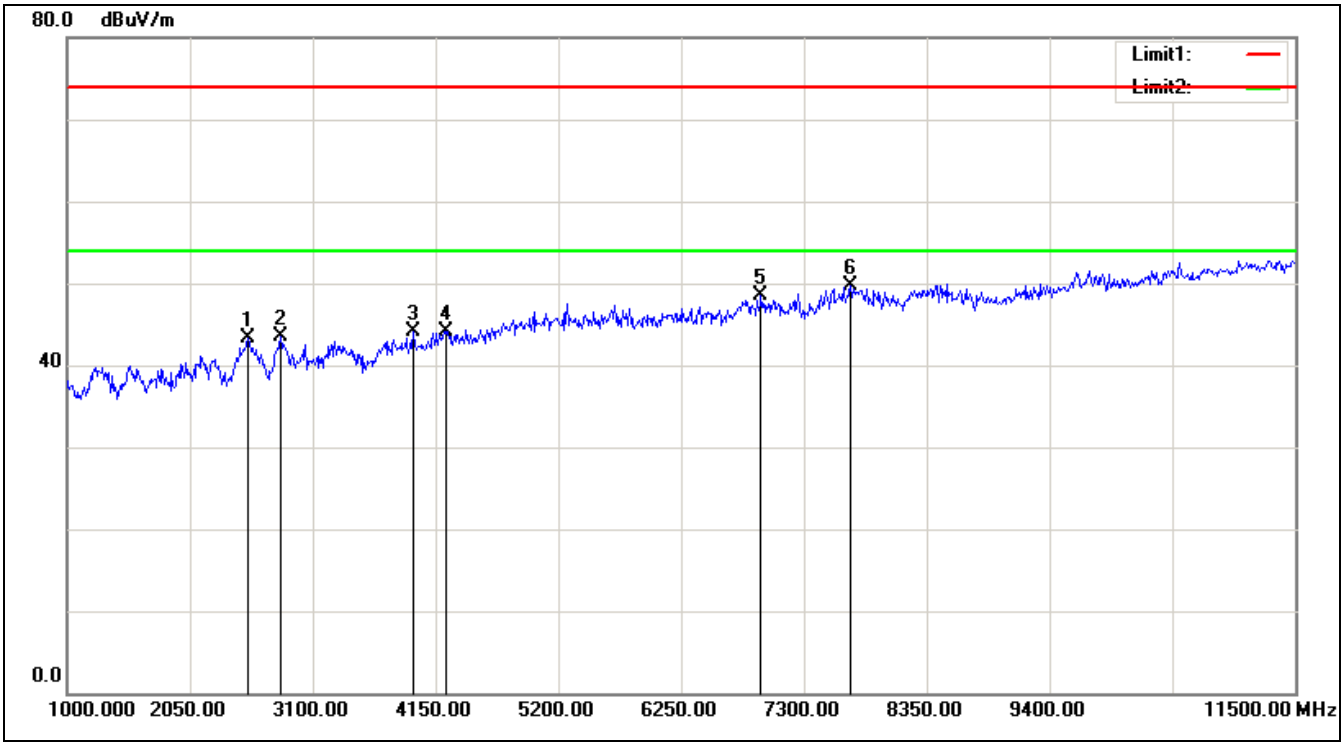
Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2512.000	45.08	-2.24	42.84	74.00	-31.16	peak
2	3415.000	44.07	-0.66	43.41	74.00	-30.59	peak
3	4150.000	43.04	2.12	45.16	74.00	-28.84	peak
4	5378.500	41.43	5.65	47.08	74.00	-26.92	peak
5	5588.500	42.01	5.91	47.92	74.00	-26.08	peak
6*	6806.500	41.11	7.39	48.50	74.00	-25.50	peak

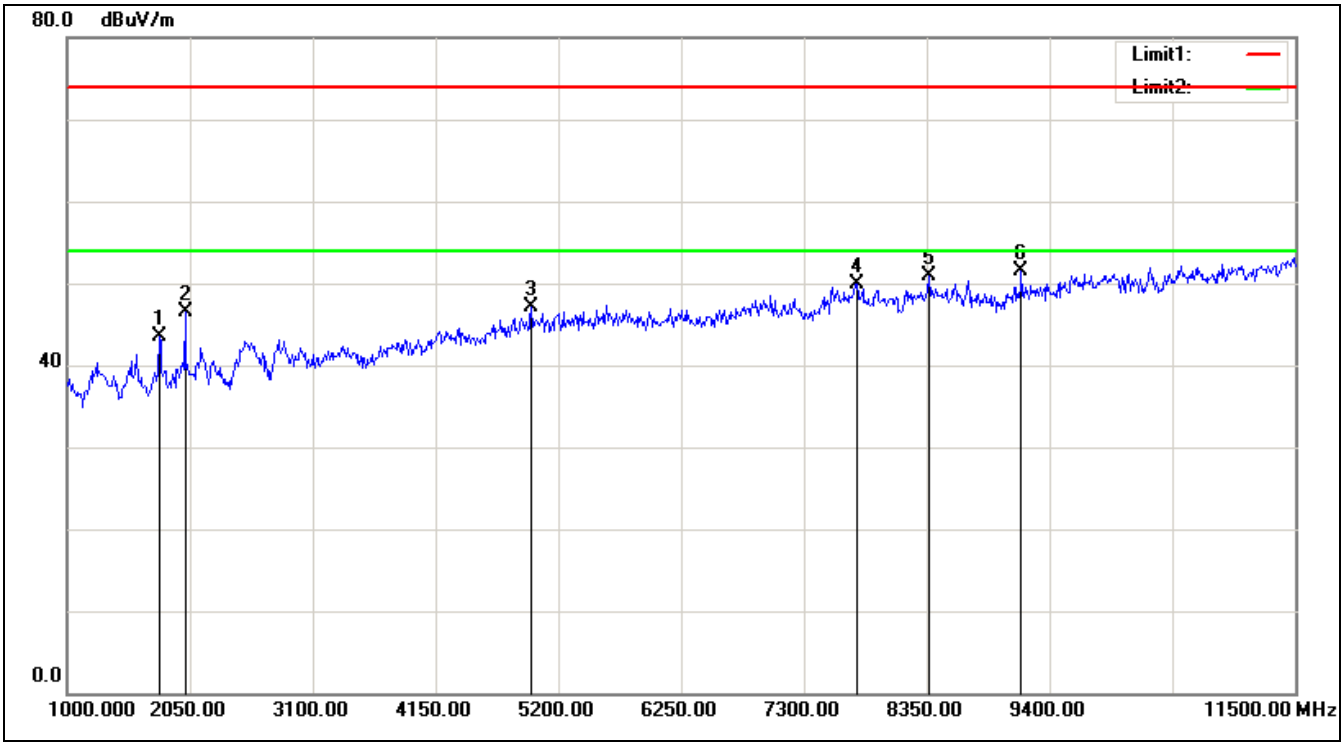
Test Mode: Copy Data Mode

Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2543.500	45.39	-2.18	43.21	74.00	-30.79	peak
2	2827.000	45.08	-1.67	43.41	74.00	-30.59	peak
3	3961.000	42.68	1.43	44.11	74.00	-29.89	peak
4	4234.000	41.74	2.41	44.15	74.00	-29.85	peak
5	6932.500	40.82	7.59	48.41	74.00	-25.59	peak
6*	7699.000	40.59	9.06	49.65	74.00	-24.35	peak

Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1787.500	49.75	-6.30	43.45	74.00	-30.55	peak
2	2008.000	51.52	-4.96	46.56	74.00	-27.44	peak
3	4969.000	42.30	4.88	47.18	74.00	-26.82	peak
4	7751.500	40.82	9.17	49.99	74.00	-24.01	peak
5	8371.000	41.43	9.45	50.88	74.00	-23.12	peak
6*	9158.500	41.87	9.56	51.43	74.00	-22.57	peak

Labeling Requirements

Each digital device which has been verified as complying with the Class B limits shall have permanently attached in a conspicuous location for the user to observe, a label with the following statement:

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

3.3 Information to User

The following warning or similar statement shall be provided in a conspicuous location in the operator's manual so that the user of a Class B digital device is aware of its interference potential. Additional information about corrective measures may also be provided to the user at the manufacturer's option.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- **Reorient or relocate the receiving antenna**
- **Increase the separation between the equipment and receiver**
- **Connect the equipment into an outlet on a circuit different from that to which the receiver is connected**
- **Consult the dealer or an experienced radio/TV technician for help**

The instruction manual for a Class B external switching power supply that is separately marketed shall also include sufficient information to insure that the complete system is capable of complying with the requirements for a Class B external switching power supplies. The manual should also caution the user that changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment. Finally, the manual should instruct the user to use any special accessories, i.e. shielded cables, necessary for compliance with the standards.

In cases where the manual is provided only in a form other than paper, such as on a computer disk or over the Internet, the information required above may be included in the manual in that alternative form, provided that the user can be reasonably expected to have the capability to access information in that form.

END OF TEST REPORT

