



FCC 47 CFR PART 74 SUBPART H

TEST REPORT

For

UHF Wireless Microphone

**EU-4700/EU-P80/EU-P81/EU-900/EU-8002L/
EU-500/EU-2700/EU-2800**

Trade Name: N/A

Issued to

**ENBAO ELECTRONIC CO., LTD
#2, Jixiang South Road,
Enping, Guangdong,
China**

Issued by

**COMPLIANCE CERTIFICATION SERVICES (SHENZHEN) INC.
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1. TEST RESULT CERTIFICATION

Applicant: ENBAO ELECTRONIC CO., LTD
#2, Jixiang South Road, Enping, Guangdong, China

Equipment Under Test: UHF Wireless Microphone

Trade Name: N/A

Model: EU-4700/EU-P80/EU-P81/EU-900/EU-8002L/
EU-500/EU-2700/EU-2800

Date of Test: May 20-July 05, 2005

APPLICABLE STANDARDS	
STANDARD	TEST RESULT
FCC 47 CFR Part 74 Subpart H	No non-compliance noted

We hereby certify that:

The above equipment was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4 and the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements of FCC Rules Part 74H.

The test results of this report relate only to the tested sample EUT identified in this report.

Reviewed and Approved by:

Clinton Kao
Manager of the EMC testing Division
Compliance Certification Services (SZ) Inc.



2. EUT DESCRIPTION

Product	UHF Wireless Microphone
Trade Name	N/A
Model Number	EU-4700/EU-P80/EU-P81/EU-900/EU-8002L/EU-500/EU-2700/EU-2800
Model Discrepancy	The same products have the different model names.

Remark: This submittal(s) (test report) is intended for FCC ID: TCPEU4700 filing to comply with Section 15.207, 15.209 and 15.247 of the FCC Part 95, Subpart C Rules.



3. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.4 and FCC CFR 47 Rules Part 74 Subpart H.

3.1 EUT CONFIGURATION

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner that intends to maximize its emission characteristics in a continuous normal application.

3.2 EUT EXERCISE

The EUT was operated in the engineering mode to fix the TX frequency that was for the purpose of the measurements.

According to its specifications, the EUT must comply with the requirements under the FCC Rules Part 74 Subpart H.

3.3 GENERAL TEST PROCEDURES

Conducted Emissions

The EUT is placed on the turntable, which is 0.8 m above ground plane. According to the requirements in Section 13.1.4.1 of ANSI C63.4 Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-peak and average detector modes.

Radiated Emissions

The EUT is placed on a turn table, which is 0.8 m above ground plane. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna, which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the maximum emissions, exploratory radiated emission measurements were made according to the requirements in Section 13.1.4.1 of ANSI C63.4.

3.4 MODIFICATION

N/A

3.5 FCC PART 15.205 RESTRICTED BANDS OF OPERATIONS

- (a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 -	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.52525	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	156.7 - 156.9	3260 - 3267	23.6 - 24.0
12.29 - 12.293	162.0125 - 167.17	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	167.72 - 173.2	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	240 - 285	3600 - 4400	(²)
13.36 - 13.41	322 - 335.4		

¹ Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

² Above 38.6

- (b) Except as provided in paragraphs (d) and (e), the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

3.6 DESCRIPTION OF TEST MODES

The EUT has been tested under operating condition.

Test program used to control the EUT for staying in continuous transmitting and receiving mode is programmed.

After verification, all tests were carried out with the worst case test modes as shown below except radiated spurious emission below 1GHz, which worst case was in normal link mode only.

The field strength of spurious emission was measured in the following position: EUT stand-up position (Z axis), lie-down position (X, Y axis).

The worst emission was found in lie-down position (Y axis) and the worst case was recorded.



4. INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment, which is traceable to recognized national standards.



5. FACILITIES AND ACCREDITATIONS

5.1 FACILITIES

All measurement facilities used to collect the measurement data are located at

No. 6, Jinao industrial park, No.35 Jukeng Road, Dashuikeng Village, Guanlan Town, Baoan District, Shenzhen, China

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 and CISPR Publication 22.

5.2 EQUIPMENT

Radiated emissions are measured with one or more of the following types of linearly polarized antennas: tuned dipole, biconical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with pre-selectors and quasi-peak detectors are used to perform radiated measurements.

Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers.

Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.

All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

5.3 LABORATORY ACCREDITATIONS AND LISTING

The test facilities used to perform radiated and conducted emissions tests are accredited by National Voluntary Laboratory Accreditation Program for the specific scope of accreditation under Lab Code: 200577-0 to perform Electromagnetic Interference tests according to FCC PART 95 AND CISPR 22 requirements. No part of this report may be used to claim or imply product endorsement by NVLAP or any agency of the US Government.



6. SETUP OF EQUIPMENT UNDER TEST

6.1 SETUP CONFIGURATION OF EUT

See test photographs attached in Appendix 1 for the actual connections between EUT and support equipment.

6.2 SUPPORT EQUIPMENT

No.	Device Type	Brand	Model	Series No.	FCC ID	Data Cable	Power Cord
1	N.A						

Remark:

- 1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.*
- 2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.*

7. FCC PART 74 REQUIREMENTS

7.1 MAXIMUM TRANSMITTER POWER

LIMIT

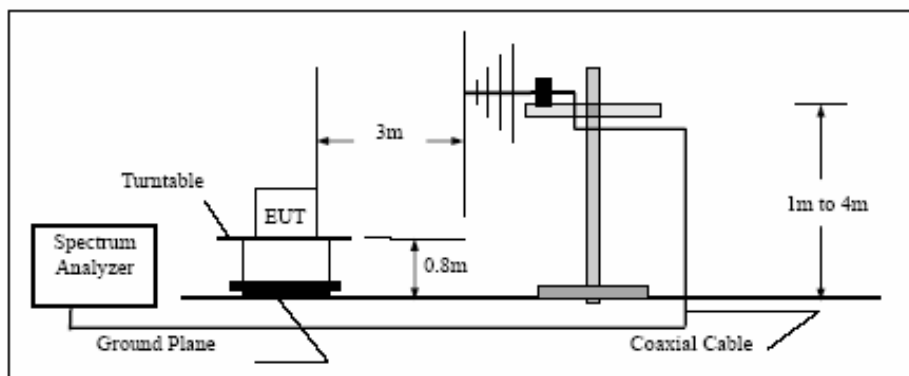
According to FCC Part 74 Section 74.861(e) – 1: The power of the measured unmodulated carrier power at the output of the transmitter power amplifier may not exceed 250mW

MEASUREMENT EQUIPMENT USED

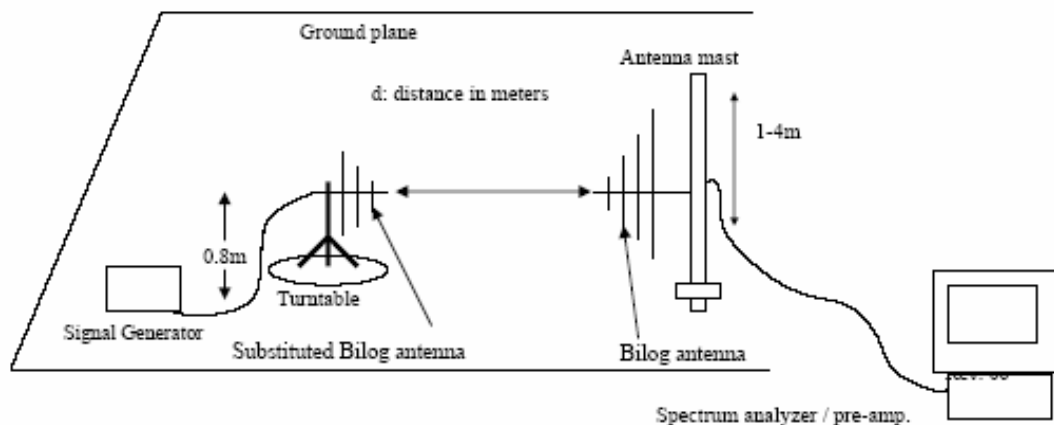
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	Advantest	R3132	120901472	06/07/2006
EMI Test Receiver	HP	8546A	3448A00232	06/07/2006
Pre-amplifier	HP	8447D	2944A0799	06/07/2006
Bi-log Antenna	EMCO	3142	9910-1436	06/07/2006
Bi-log Antenna	Schaffner	CBL6143	5082	06/07/2006

Remark: Each piece of equipment is scheduled for calibration once a year.

Test Configuration



SUBSTITUTION METHOD:





TEST PROCEDURE

1. On a test site, the EUT shall be placed on a turntable, and in the position closest to the normal use as declared by the user.
2. The test antenna shall be oriented initially for vertical polarization located 3m from the EUT to correspond to the transmitter.
3. The output of the antenna shall be connected to the measuring receiver and either a peak or quasi-peak detector was used for the measurement as indicated on the report. The detector selection is based on how close the emission level was approaching the limit.
4. The transmitter shall be switched on; if possible, without the modulation and the measurement receiver shall be tuned to the frequency of the transmitter under test.
5. The test antenna shall be raised and lowered through the specified range of height until the measuring receiver detects a maximum signal level.
6. The transmitter shall then be rotated through 360 ° in the horizontal plane, until the maximum signal level is detected by the measuring receiver.
7. The test antenna shall be raised and lowered again through the specified range of height until the measuring receiver detects a maximum signal level.
8. The maximum signal level detected by the measuring receiver shall be noted.
9. Replace the antenna with a proper Antenna (substitution antenna).
10. The substitution antenna shall be oriented for vertical polarization and, if necessary, the length of the substitution antenna shall be adjusted to correspond to the frequency of transmitting.
11. The substitution antenna shall be connected to a calibrated signal generator.
12. If necessary, the input attenuator setting of the measuring receiver shall be adjusted in order to increase the sensitivity of the measuring receiver.
13. The test antenna shall be raised and lowered through the specified range of the height to ensure that the maximum signal is received.
14. The input signal to substitution antenna shall be adjusted to the level that produces a level detected by the measuring receiver, that is equal to the level noted while the transmitter radiated power was measured, corrected for the change of input attenuation setting of the measuring receiver.
15. The input level to the substitution antenna shall be recorded as power level in dBm, corrected for any change of input attenuator setting of the measuring receiver.
16. The measurement shall be repeated with the test antenna and the substitution antenna oriented for horizontal polarization.
17. The measure of the effective radiated power is the larger of the two levels recorded, at the input to the substitution antenna, corrected for the gain of the substitution antenna if necessary.

**TEST RESULTS***No non-compliance noted***Test Data****The Output Power of Wireless Microphone**

Testing channel: 743MHz								
Freq. (MHz)	Antenna Polarity	Reading (dBuV)	SG O/P (dBm)	Ant. Gain (dB)	Cable (dB)	Corrected Power		Limit (mW)
						(dBm)	(mW)	
743.03	V	82.12	7.04	3.56	2.7	7.90	6/27	250
743.03	H	63.06	-12.03	3.56	2.7	-11.17	0.076	
Testing channel: 747MHz								
Freq. (MHz)	Antenna Polarity	Reading (dBuV)	SG O/P (dBm)	Ant. Gain (dB)	Cable (dB)	Corrected Power		Limit (mW)
						(dBm)	(mW)	
747.1	V	79.02	5.19	3.66	2.74	6.11	4.08	250
747.1	H	60.11	-14.83	3.66	2.74	-13.91	0.041	
Testing channel: 766MHz								
Freq. (MHz)	Antenna Polarity	Reading (dBuV)	SG O/P (dBm)	Ant. Gain (dB)	Cable (dB)	Corrected Power		Limit (mW)
						(dBm)	(mW)	
766.5	V	77.11	3.12	3.66	2.68	4.10	2.57	250
766.5	H	56.02	-18.86	3.22	2.68	-18.32	0.015	
Testing channel: 805MHz								
Freq. (MHz)	Antenna Polarity	Reading (dBuV)	SG O/P (dBm)	Ant. Gain (dB)	Cable (dB)	Corrected Power		Limit (mW)
						(dBm)	(mW)	
805.1	V	76.12	4.96	4.66	2.84	6.78	4.76	250
805.1	H	57.29	-14.87	4.66	2.84	-13.05	0.050	

$$\text{Corrected Power(dBm)} = \text{SG output power(dBm)} - \text{losses(dB)} + \text{antenna gain(dBd)}$$



7.2 MODULATION CHARACTERISTICS

LIMIT

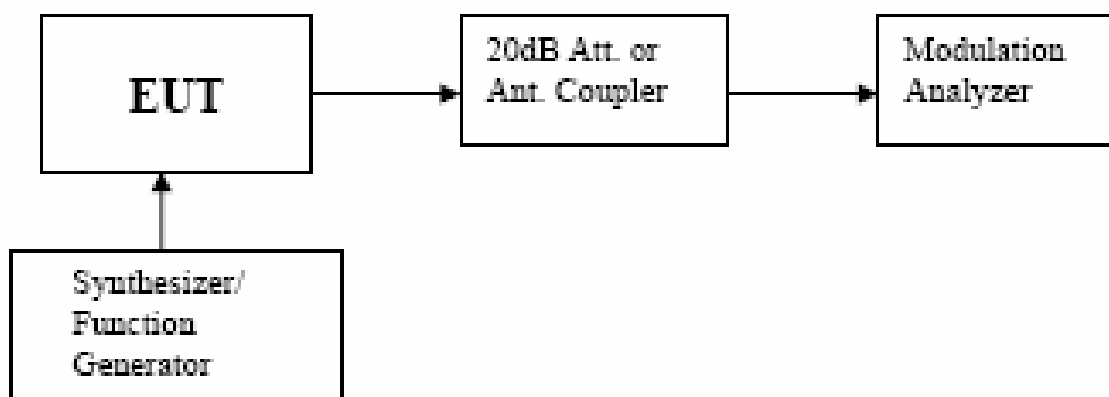
1. According to CFR 47 section 2.1047(a), for Voice Modulation Communication Equipment, the frequency response of the audio modulation circuit over a range of 100 to 5000Hz shall be measured.
2. According to CFR 47 section 74.861(e)-3, any form of modulation may be used. A maximum deviation of ± 75 KHz is permitted when frequency modulation is employed.

MEASUREMENT EQUIPMENT USED

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Audio Signal Generator	HP	3325A		
Modulation Analyzer	HP	8920B		
Attenuator	Mini Circuit	MCL BW-S20W2		

Remark: Each piece of equipment is scheduled for calibration once a year.

Test Configuration





TEST PROCEDURE

A. Modulation Limit

1. Configure the EUT as shown in figure 1, adjust the audio input for 60% of rated system deviation at 1 KHz using this level as a reference (0 dB) and vary the input level from -20 to +20 dB. Record the frequency deviation obtained as a function of the input level.
2. Repeat step 1 with input frequency changing to 300, 1000, 3000, and 14000 Hz in sequence.

B. Audio Frequency Response

1. Configure the EUT as shown in figure 1.
2. Adjust the audio input for 20% of rated system deviation at 1 KHz using this level as a reference (0 dB).
3. Vary the Audio frequency from 100 Hz to 30 KHz and record the frequency deviation.

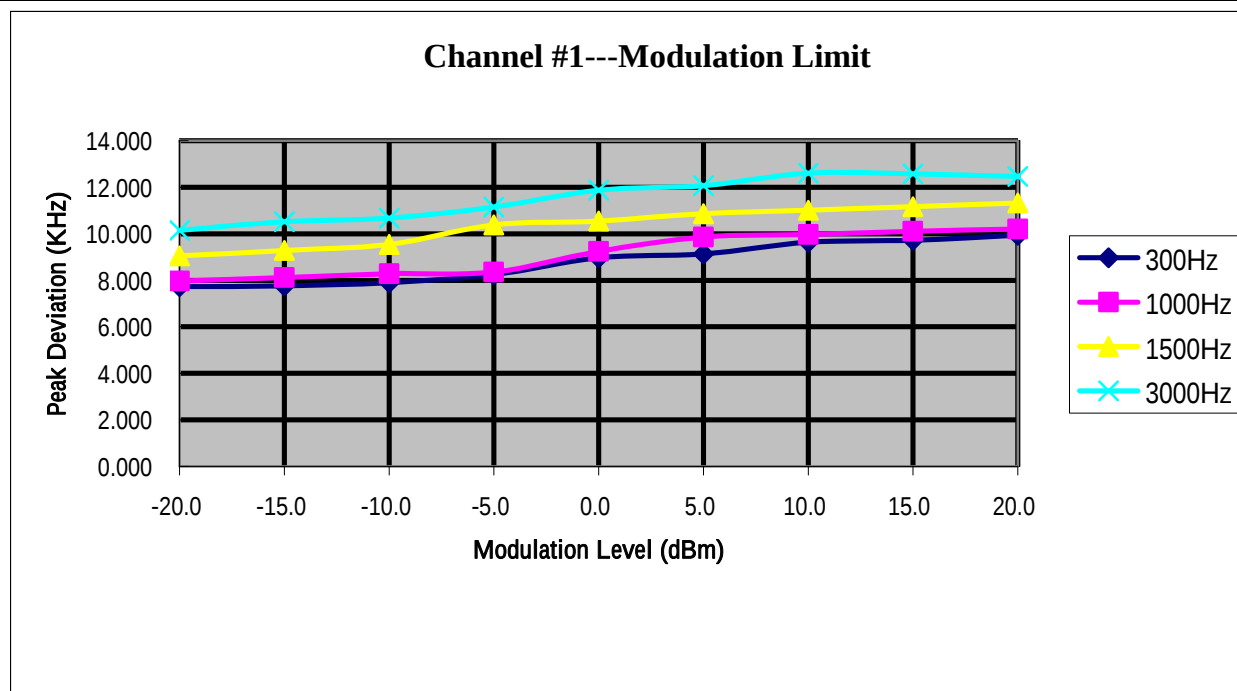


TEST RESULTS

No non-compliance noted.

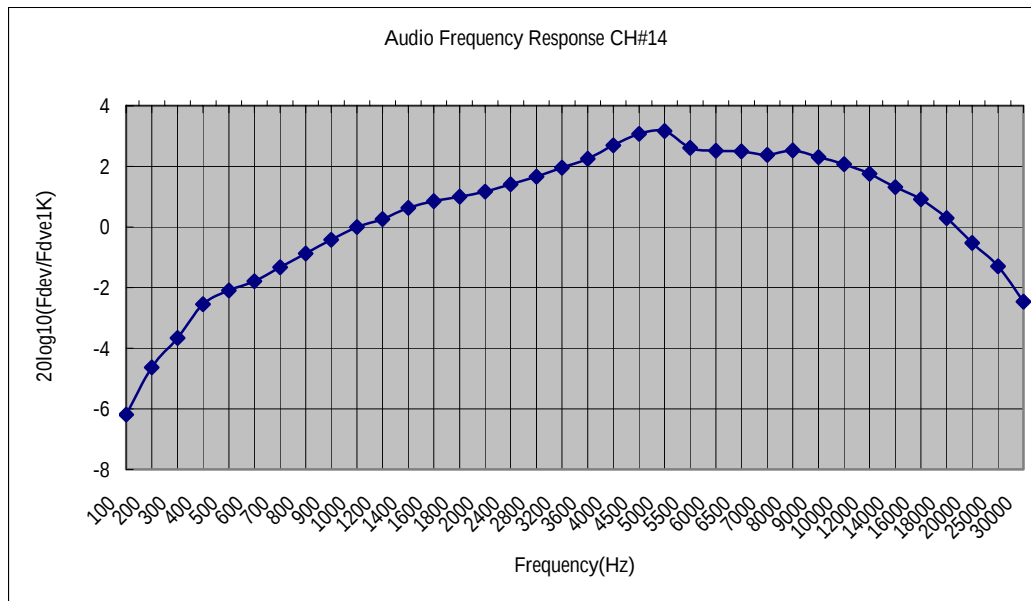
A. Modulation limit

Modulation Level (dBm)	Peak Freq. Deviation (300Hz)	Peak Freq. Deviation (1000Hz)	Peak Freq. Deviation (1500Hz)	Peak Freq. Deviation (3000Hz)
-20.00	7.737	7.962	9.050	10.143
-15.00	7.764	8.115	9.277	10.515
-10.00	7.892	8.277	9.543	10.673
-5.00	8.243	8.346	10.378	11.145
0.00	8.968	9.245	10.550	11.878
5.00	9.132	9.863	10.861	12.066
10.00	9.641	9.975	11.013	12.602
15.00	9.717	10.105	11.168	12.578
20.00	9.942	10.207	11.330	12.470



**B. Audio Frequency response**

Frequency (Hz)	Deviation (KHz)
100	3.110
200	3.720
300	4.160
400	4.730
500	4.981
600	5.162
700	5.441
800	5.731
900	6.042
1000	6.340
1200	6.532
1400	6.821
1600	6.992
1800	7.111
2000	7.253
2400	7.461
2800	7.682
3200	7.940
3600	8.220
4000	8.650
4500	9.031
5000	9.128
5500	9.209
6000	9.345
6500	9.472
7000	9.533
8000	9.982
9000	10.012
10000	10.078
12000	10.065
14000	10.062
16000	10.032
18000	9.438
20000	8.672
25000	8.051
30000	7.132



7.3 FREQUENCY TOLERANCE MEASUREMENT

LIMIT

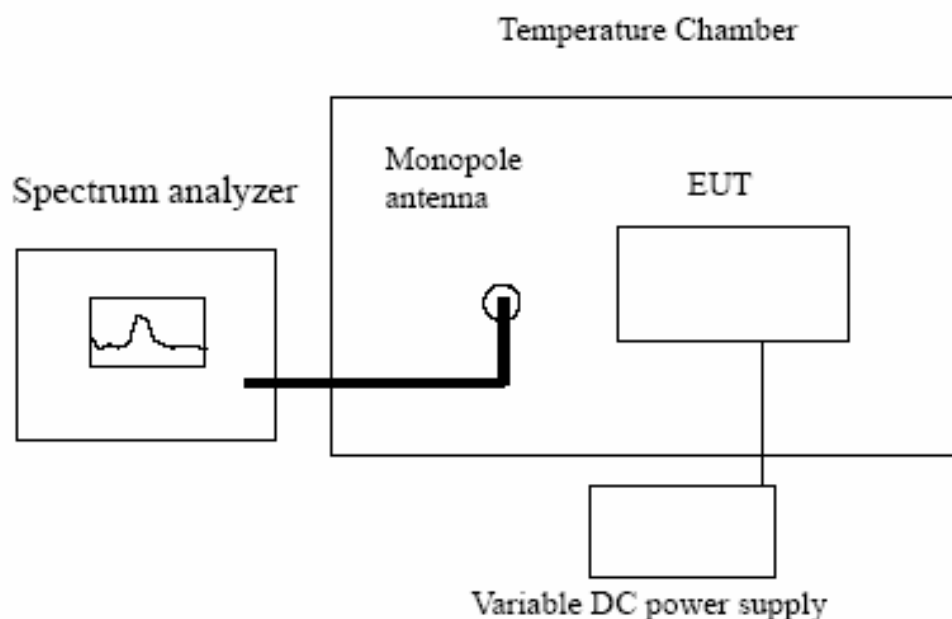
- a). According to FCC Part 2 Section 2.1055(a)(1), the frequency stability shall be measured with variation of ambient temperature from -30 to $+50$ centigrade.
- b). According to FCC Part 2 Section 2.1055(d)(2), for hand carried battery powered equipment, the frequency stability shall be measured with reducing primary supply voltage to the battery operating end point, which is specified by the manufacture.
- c). According to FCC Part 74 Section 74.861(e)-4, the frequency tolerance must be maintained within 0.005%.

MEASUREMENT EQUIPMENT USED

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	Advantest	R3132	120901472	06/07/2006
Temperature Chamber	Shihin	BM50-CB	908	06/29/2006

Remark: Each piece of equipment is scheduled for calibration once a year.

Test Configuration





TEST PROCEDURE

A. Frequency stability versus environmental temperature

1. Setup the configuration per figure 1 for frequencies measurement inside an environment chamber, Install new battery in the EUT.
2. Turn on EUT and set SA center frequency to the EUT radiated frequency. Set SA Resolution Bandwidth to 1KHz and Video Resolution Bandwidth to 1KHz and Frequency Span to 50KHz. Record this frequency as reference frequency.
3. Set the temperature of chamber to 50 °C. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize. While maintaining a constant temperature inside the chamber, turn the EUT on and measure the EUT operating frequency.
4. Repeat step 2 with a 10 °C decreased per stage until the lowest temperature -30 °C is measured, record all measured frequencies on each temperature step.

B. Frequency stability versus input voltage

1. Setup the configuration per figure 1 for frequencies measured at temperature if it is within 15 °C to 25 °C. Otherwise, an environment chamber set for a temperature of 20 °C shall be used. Install new battery in the EUT.
2. Set SA center frequency to the EUT radiated frequency. Set SA Resolution Bandwidth to 1KHz and Video Resolution Bandwidth to 1KHz. Record this frequency as reference frequency.
3. For battery operated only device, supply the EUT primary voltage at the operating end point which is specified by manufacturer and record the frequency.



TEST RESULTS

No non-compliance noted

Test Data

Reference frequency: 743.60000MHz			
Limit: $\pm 0.005\%$			
Environment Temperature ()	Power supply	Frequency deviation measured with time elapse (30 minutes)	
		(MHz)	(%)
50	NEW BATTERY	743.59933	-0.00031
40	NEW BATTERY	743.59978	-0.00010
30	NEW BATTERY	743.60000	0
20	NEW BATTERY	743.60004	0.00002
10	NEW BATTERY	743.60009	0.00004
0	NEW BATTERY	743.60017	0.00008
-10	NEW BATTERY	743.60030	0.00014
-20	NEW BATTERY	743.60039	0.00018
-30	NEW BATTERY	743.60050	0.00023

Reference frequency: 747.85000MHz			
Limit: $\pm 0.005\%$			
Environment Temperature ()	Power supply	Frequency deviation measured with time elapse (30 minutes)	
		(MHz)	(%)
50	NEW BATTERY	747.84943	-0.00029
40	NEW BATTERY	747.84979	-0.00011
30	NEW BATTERY	747.85000	0
20	NEW BATTERY	747.85004	0.00002
10	NEW BATTERY	747.85010	0.00005
0	NEW BATTERY	747.85018	0.00009
-10	NEW BATTERY	747.85025	0.00013
-20	NEW BATTERY	747.85031	0.00016
-30	NEW BATTERY	747.85045	0.00023



Reference frequency: 766.10000MHz			
Limit: $\pm 0.005\%$			
Environment Temperature ()	Power supply	Frequency deviation measured with time elapse (30 minutes)	
		(MHz)	(%)
50	NEW BATTERY	766.09948	-0.0003
40	NEW BATTERY	766.09983	-0.0001
30	NEW BATTERY	766.10000	0
20	NEW BATTERY	766.10002	-0.00001
10	NEW BATTERY	766.10005	-0.00003
0	NEW BATTERY	766.10012	-0.00007
-10	NEW BATTERY	766.10021	-0.00012
-20	NEW BATTERY	766.10030	-0.00017
-30	NEW BATTERY	766.10044	-0.00025

Reference frequency: 805.10000MHz			
Limit: $\pm 0.005\%$			
Environment Temperature ()	Power supply	Frequency deviation measured with time elapse (30 minutes)	
		(MHz)	(%)
50	NEW BATTERY	805.09831	-0.0005
40	NEW BATTERY	805.09932	-0.0001
30	NEW BATTERY	805.10000	0
20	NEW BATTERY	805.10002	-0.00001
10	NEW BATTERY	805.10003	-0.00001
0	NEW BATTERY	805.10008	-0.00005
-10	NEW BATTERY	805.10011	-0.00017
-20	NEW BATTERY	805.10027	-0.00016
-30	NEW BATTERY	805.10038	-0.00023

7.4 EMISSION BANDWIDTH MEASUREMENT

LIMIT

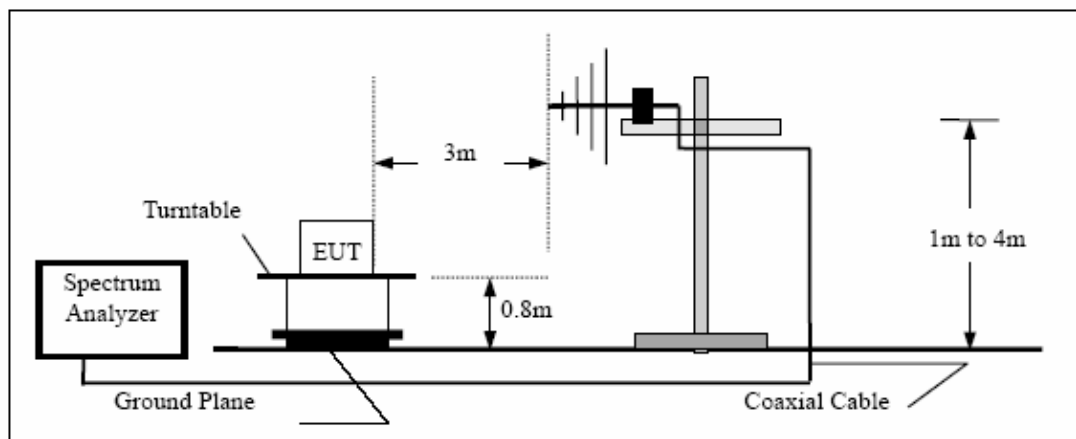
According to FCC Part 74 Section 74.861(e)-5: The operation bandwidth shall not exceed 200KHz.

MEASUREMENT EQUIPMENT USED

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	Advantest	R3132	120901472	06/07/2006
EMI Test Receiver	HP	8546A	3448A00232	06/07/2006
Pre-amplifier	HP	8447D	2944A07999	06/07/2006
Bi-log Antenna	EMCO	3142	9910-1436	06/07/2006
Bi-log Antenna	Schaffner	CBL6143	5082	06/07/2006

Remark: Each piece of equipment is scheduled for calibration once a year.

Test Configuration



TEST PROCEDURE

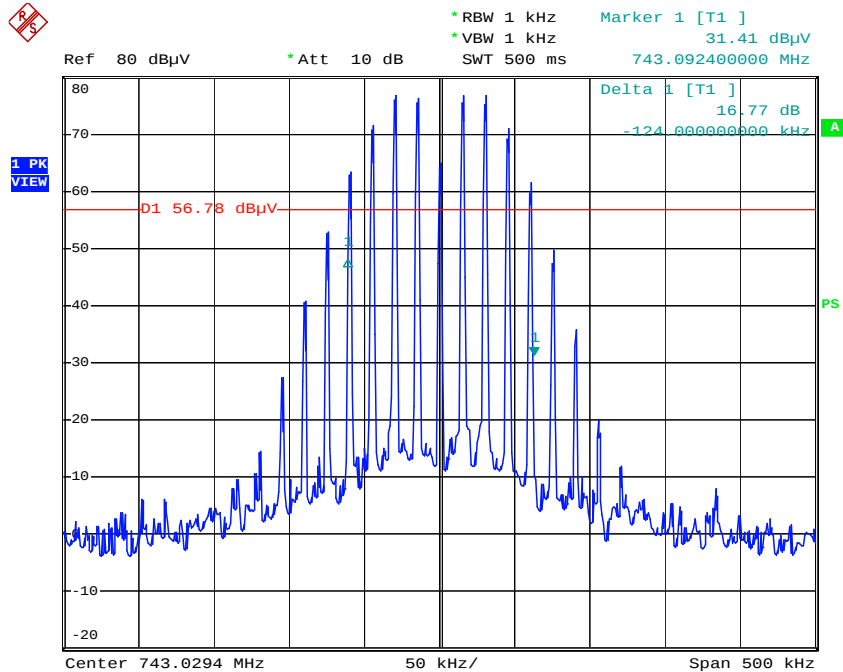
1. The EUT was placed on a turn table which is 0.8m above ground plane.
2. Set EUT as normal operation
3. Set SPA Center Frequency = fundamental frequency , RBW,VBW= 1 KHz, Span =200 KHz.
4. Set SPA Max hold. Mark peak, -26dB.



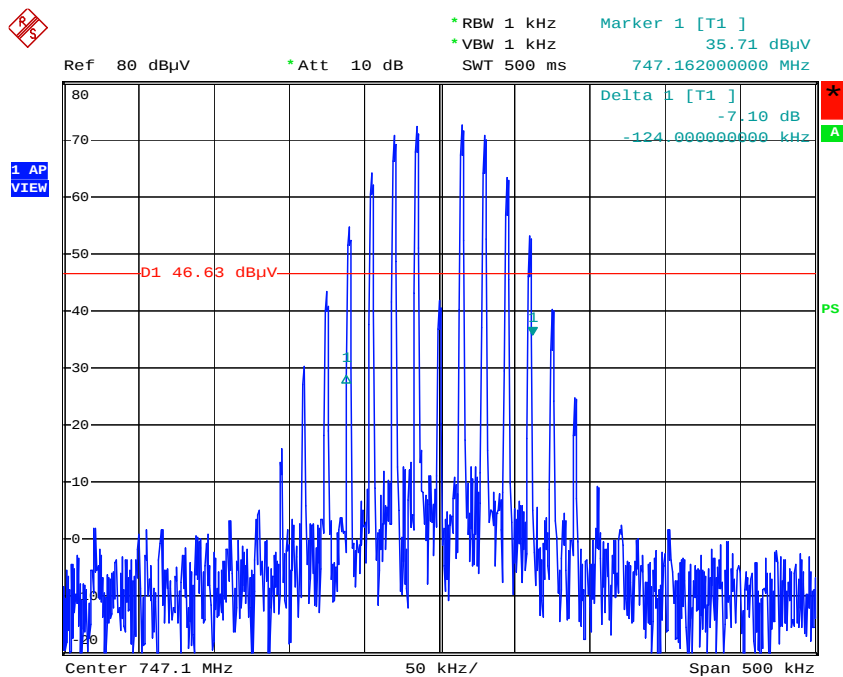
TEST RESULTS

No non-compliance noted

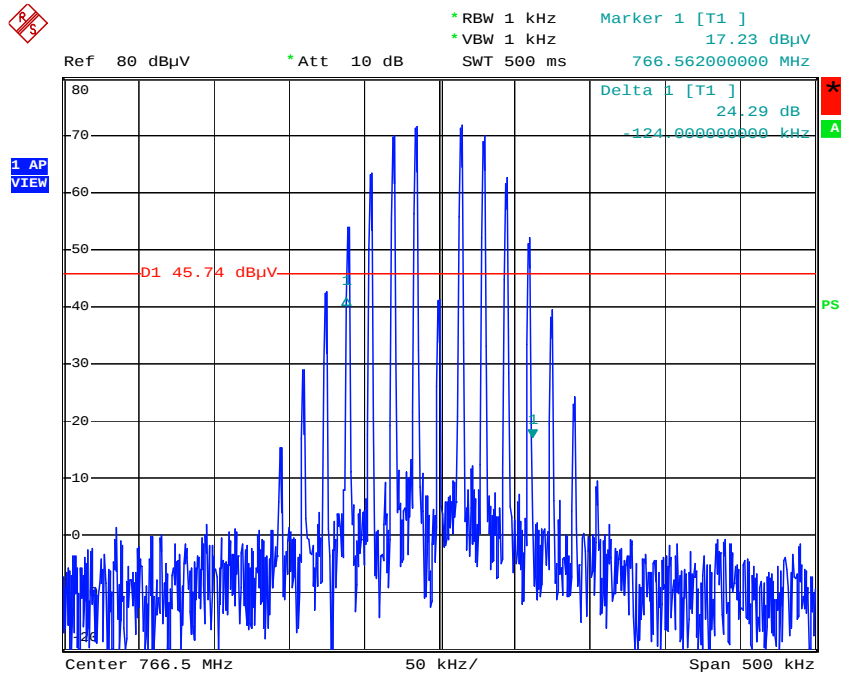
Test Plot (EMISSION BANDWIDTH)



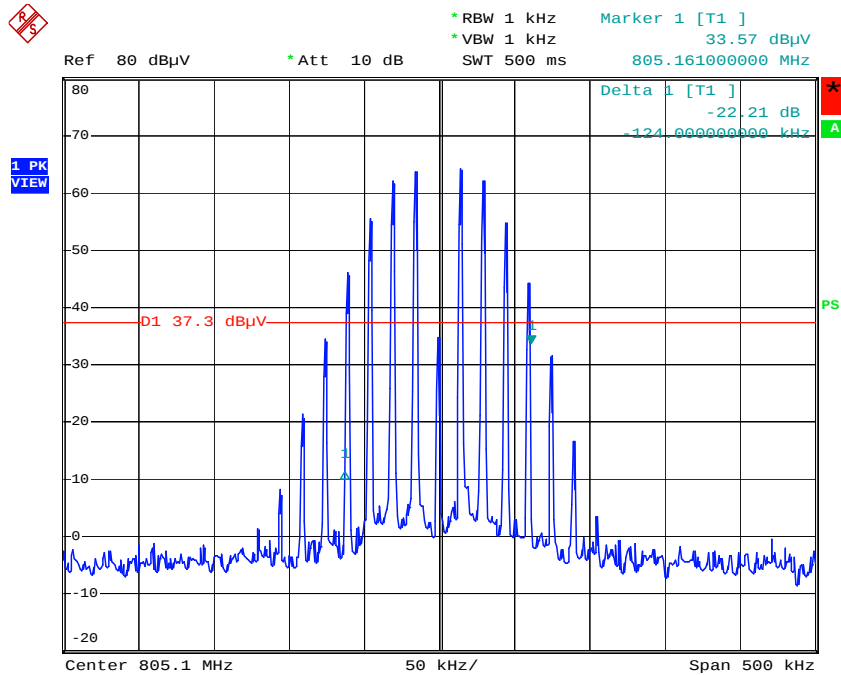
Date: 26.JUL.2005 00:10:53



Date: 26.JUL.2005 04:11:20



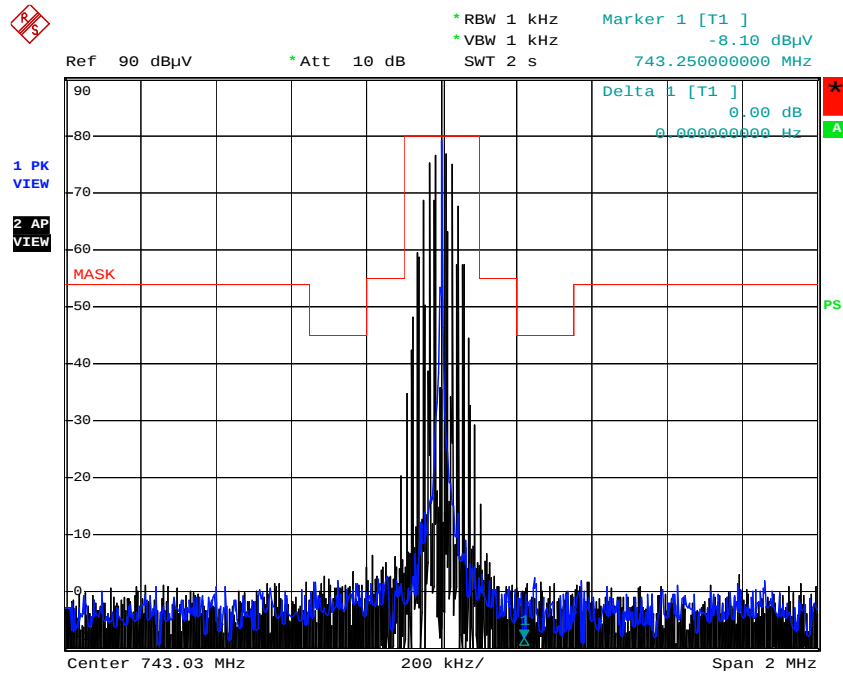
Date: 26.JUL.2005 04:28:04



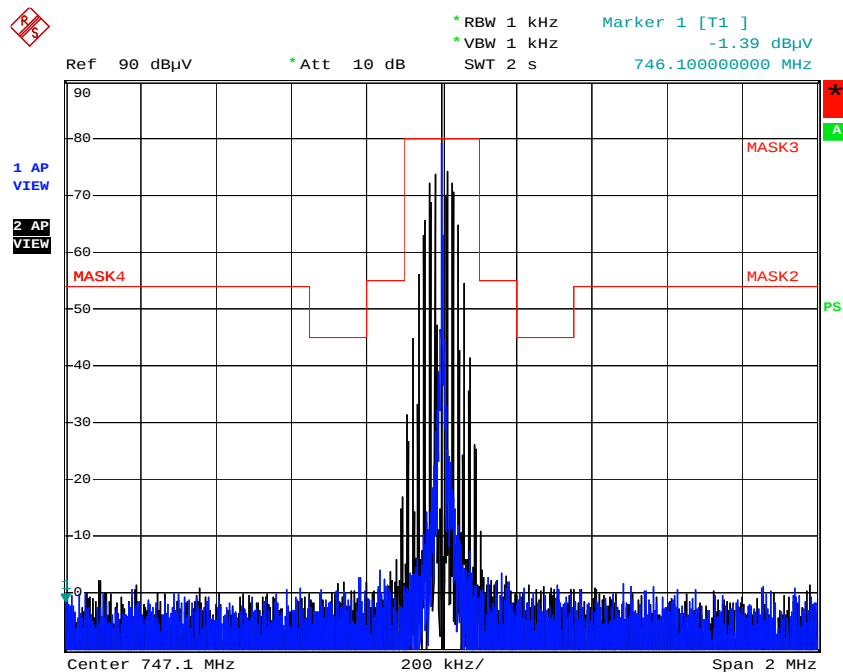
Date: 26.JUL.2005 05:10:03



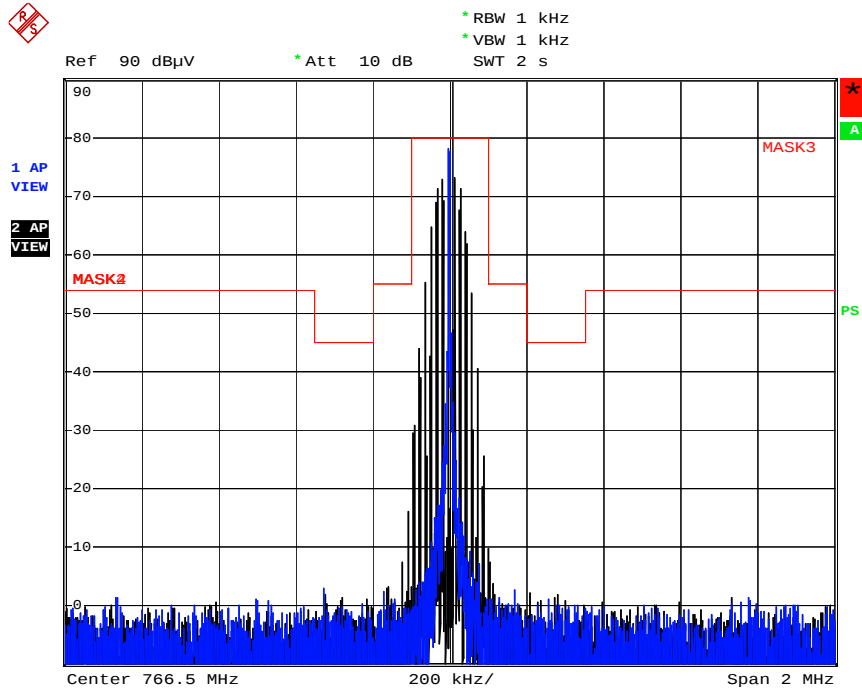
Test Plot (EMISSION MASK)



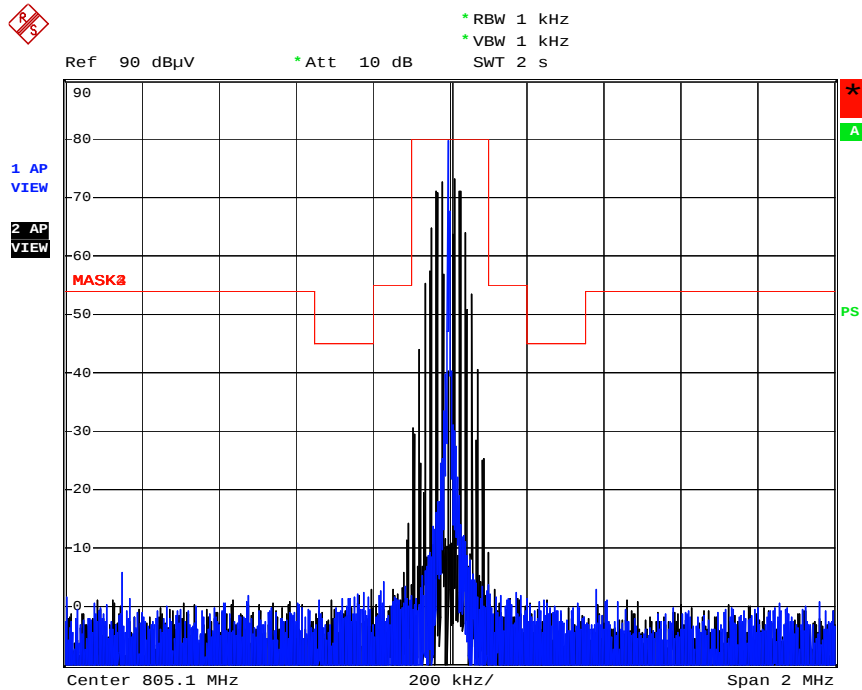
Date: 26.JUL.2005 05:41:57



Date: 26.JUL.2005 06:04:44



Date: 26.JUL.2005 06:06:52



Date: 26.JUL.2005 06:09:22

7.5 UNWANTED RADIATION

LIMIT

According to Section 74.861(e)-6, The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the following schedule:

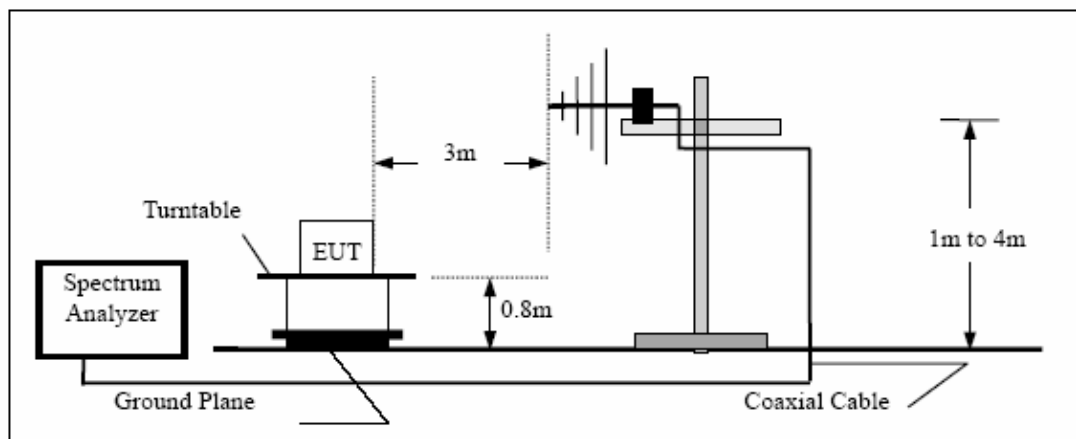
- 1). On any frequency removed from the operating frequency by more than 50 percent up to and including 100 percent of the authorized bandwidth: at least 25 dB;
- 2). On any frequency removed from the operating frequency by more than 100 percent up to and including 250 percent of the authorized bandwidth: at least 35 dB;
- 3). On any frequency removed from the operating frequency by more than 250 percent of the authorized bandwidth: at least $43 + 10 \log_{10}(TP)$ dB

MEASUREMENT EQUIPMENT USED

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	Advantest	R3132	120901472	06/07/2006
EMI Test Receiver	HP	8546A	3448A00232	06/07/2006
Pre-amplifier	HP	8447D	2944A07999	06/07/2006
Bi-log Antenna	EMCO	3142	9910-1436	06/07/2006
Bi-log Antenna	Schaffner	CBL6143	5082	06/07/2006
Horn Antenna	ARA	DRG-118/A	104	06/07/2006

Remark: Each piece of equipment is scheduled for calibration once a year.

Test Configuration





TEST PROCEDURE

1. On a test site, the EUT shall be placed on a turntable, and in the position closest to the normal use as declared by the user.
2. The test antenna shall be oriented initially for vertical polarization located 3m from the EUT to correspond to the transmitter.
3. The output of the antenna shall be connected to the measuring receiver and either a peak or quasi-peak detector was used for the measurement as indicated on the report. The detector selection is based on how close the emission level was approaching the limit.
4. The transmitter shall be switched on; if possible, without the modulation and the measurement receiver shall be tuned to the frequency of the transmitter under test.
5. The test antenna shall be raised and lowered through the specified range of height until the measuring receiver detects a maximum signal level.
6. The transmitter shall then be rotated through 360 ° in the horizontal plane, until the maximum signal level is detected by the measuring receiver.
7. The test antenna shall be raised and lowered again through the specified range of height until the measuring receiver detects a maximum signal level.
8. The maximum signal level detected by the measuring receiver shall be noted.
9. The measurement shall be repeated with the test antenna set to horizontal polarization.
10. Replace the antenna with a proper Antenna (substitution antenna).
11. The substitution antenna shall be oriented for vertical polarization and, if necessary, the length of the substitution antenna shall be adjusted to correspond to the frequency of transmitting.
12. The substitution antenna shall be connected to a calibrated signal generator.
13. If necessary, the input attenuator setting of the measuring receiver shall be adjusted in order to increase the sensitivity of the measuring receiver.
14. The test antenna shall be raised and lowered through the specified range of the height to ensure that the maximum signal is received.
15. The input signal to substitution antenna shall be adjusted to the level that produces a level detected by the measuring receiver, that is equal to the level noted while the transmitter radiated power was measured, corrected for the change of input attenuation setting of the measuring receiver.
16. The input level to the substitution antenna shall be recorded as power level in dBm, corrected for any change of input attenuator setting of the measuring receiver.
17. The measurement shall be repeated with the test antenna and the substitution antenna oriented for horizontal polarization.

**TEST RESULTS***No non-compliance noted***Test Data**

Frequency (MHz)	Reading level (dBuv)	Antenna Polarization	S.G. (dBm)	Cable loss (dB)	Ant.Gain (dB)	Emission level (dBm)	Limit (dBm)	Margin (dB)

*Notes:(Calculation)*Limit (dBm)= $43+10\log P[\text{watts}] = -13\text{dBm}$

APPENDIX 1

PHOTOGRAPHS OF TEST SETUP

Radiated Emission Set up Photos

