CONFORMANCE TEST REPORT
FOR
FCC 47 CFR, Part 15 Subpart C

Report No.: ET94S-05-102-01

Client:	Yuanfann International Co., Ltd.
Product:	2.4GHz Wireless A/V Sender
Model:	AVIR-2500
FCC ID:	TAW-AVIR2500T
Manufacturer/supplier:	Yuanfann International Co., Ltd.

Date test item received:	2005/05/12
Date test campaign completed:	2005/06/27
Date of issue:	2005/07/06

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Total number of pages of this test report: 28 pages

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Internal photos 6 pages
Setup photos 2 pages

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Manufacturer	: Yuanfann International Co., Ltd.
Address	: 9F, No. 515, Jhong Jheng Rd., Jhong He, Taipei County 235, Taiwan, R.O.C.
EUT	: 2.4GHz Wireless A/V Sender
Trade name	: ----
Model No.	: AVIR-2500
Power Source	: Adapter Model No.: MW41-0600500 Input: 120Vac, 60Hz, 6W Output: DC 6Vdc, 500mA
Regulations applied	: FCC 47 CFR, Part 15 Subpart C (2004)

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1. GENERAL INFORMATION

1.1 Product Description

a) Type of EUT	: 2.4GHz Wireless A/V Sender
b) Model No.	: AVIR-2500
c) Serial No.	: ----
d) FCC ID	: TAW-AVIR2500T
e) Working Frequency	: 2410 MHz ~ 2470 MHz
f) Power Supply	: Adapter Model No.: MW41-0600500 Input: 120Vac, 60Hz, 6W Output: DC 6Vdc, 500mA

1.2 Characteristics of Device:

The EUT is a 2.4GHz Wireless A/V Sender. It will receive the 433.94 MHz control signal and transmit 2.4 GHz audio and video signal to the receiver. There are three channels to transmit: Channel 1: 2410 MHz, Channel 2: 2430 MHz, Channel 3: 2450 MHz, Channel 4: 2470 MHz,

1.3 Test Methodology

Radiated testing were performed according to the procedures in chapter 13 of ANSI C63.4.

The device under test was operated continuously in its normal operating mode for the purpose of the measurements. In order to secure the continuous operation of the device under test, rewiring in the circuit was done by the manufacturer so as to affect its intended operation.

The receiving antenna was varied from 1 to 4 meters and the wooden turntable was rotated through 360 degrees to obtain the highest reading on the field strength meter or on the display of the spectrum analyzer. And also, each emission was to be maximized by changing the orientation of the device under test. The hand-held or body-worn devices rotated through three orthogonal axes to determine which attitude and configuration produces the highest emission relatives to the limit.

1.4 Test Facility

The semi-anechoic chamber and conducted measurement facility used to collect the radiated and conducted data are located inside the Building at No.8, Lane 29, Wen-ming Road, Lo-shan Tsun, Kweishan Hsiang, Taoyuan, Taiwan, R.O.C.

This site has been accreditation as a FCC filing site.

2. DEFINITION AND LIMITS

2.1 Definition

Intentional radiator:
A device that intentionally generates and emits radio frequency energy by radiation or induction.

2.2 Restricted Bands of Operation

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	4.5-5.25
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 - 156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2655-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	Above 38.6
13.36-13.41			

Remark "**": Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz

2.3 Limitation

(1) Conducted Emission Limits:

For an intentional radiator, which is designed to be connected to the public utility (AC) power line, the conducted limit is the following:

Frequency MHz	Quasi Peak dB μV	Average dB μV
0.15 - 0.5	66-56*	56-46*
0.5 - 5.0	56	46
5.0 - 30.0	60	50

*Decreases with the logarithm of the frequency.

(2) Radiated Emission Limits:

According to 15.249, the field strength of emissions from intentional radiators operated under this section shall not exceed the following:

Frequency Band (MHz)	Field strength of Fundamental (mV/m)	Field strength of Harmonics (uV/m)
902 – 928	50	500
2400 – 2483.5	50	500
5725 – 5875	50	500
24.0 – 24.25 GHz	250	2500

Field strength limits are at the distance of 3 meters, emissions radiated outside of the specified bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated limits in 15.209, as following table(whichever is the lesser attenuation):

Other Frequencies (MHz)	Field Strength of Fundamental	
	μV/meter	dBμV/meter
30 - 88	100	40.0
88 - 216	150	43.5
216 - 960	200	46.0
Above 960	500	54.0

As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20 dB under any condition of modulation.

2.4 Labeling Requirement

The device shall bear the following statement in a conspicuous location on the device:

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.

2.5 User Information

The users manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

To comply with the FCC RF exposure compliance requirement, this device and its antenna must not be co-located or operating to conjunction with any other antenna or transmitter.

3. RADIATED EMISSION MEASUREMENT

3.1 Applicable Standard

For periodic operation intentional radiator, the radiated emission shall comply with § 15.249 and 15.209.

3.2 Measurement Procedure

1. Setup the configuration per figure 1 and 2 for frequencies measured below and above 1 GHz respectively. Turn on EUT and make sure that it is in normal function.
2. For emission frequencies measured below 1 GHz, a pre-scan is performed in a semi-anechoic chamber to determine the accurate frequencies of higher emissions and then each selected frequency is precisely measured. As the same purpose, for emission measured above 1 GHz, a pre-scan also be performed with a 1 meter measuring distance before final test.
3. For emission measured below and above 1 GHz, set the spectrum analyzer on a 120 kHz and 1 MHz resolution bandwidth respectively for each frequency measured in step 2.
4. The search antenna is to be raised and lowered over a range from 1 to 4 meters in horizontally polarized orientation. Position the highness when the highest value is indicated on spectrum analyzer, then change the orientation of EUT on test table over a range from 0 ° to 360 ° with a speed as slow as possible, and keep the azimuth that highest emission is indicated on the spectrum analyzer. Vary the antenna position again and record the highest value as a final reading. A RF test receiver is also used to confirm emissions measured.
5. Repeat step 4 until all frequencies that need to be measured were complete.
6. Repeat step 5 with search antenna in vertical polarized orientations.
7. Check the frequencies of highest emission with varying the placement of cables (if any) associated with EUT to obtain the worse case and record the result.

Figure 1: Frequencies measured below 1 GHz configuration

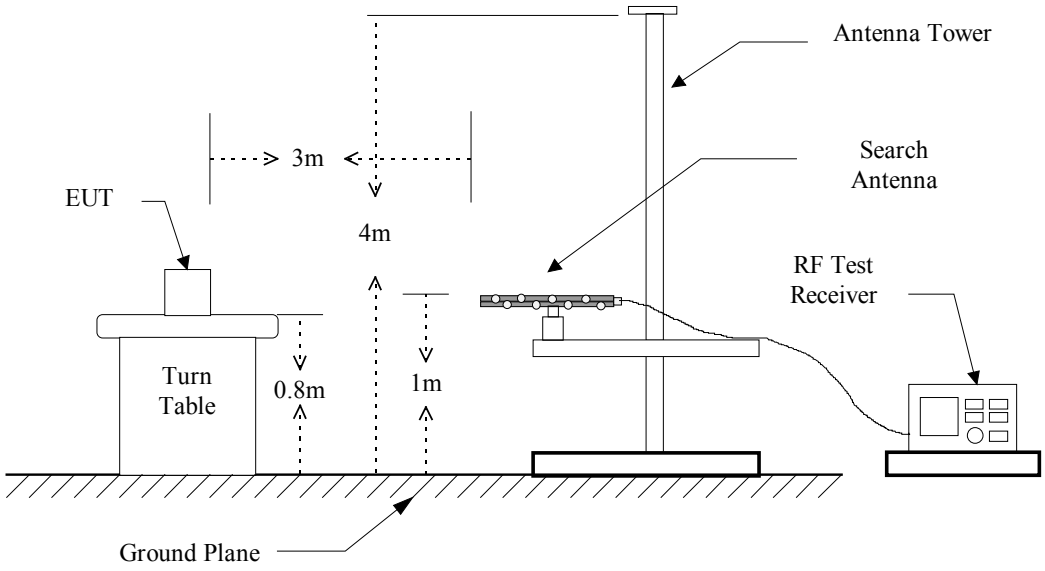
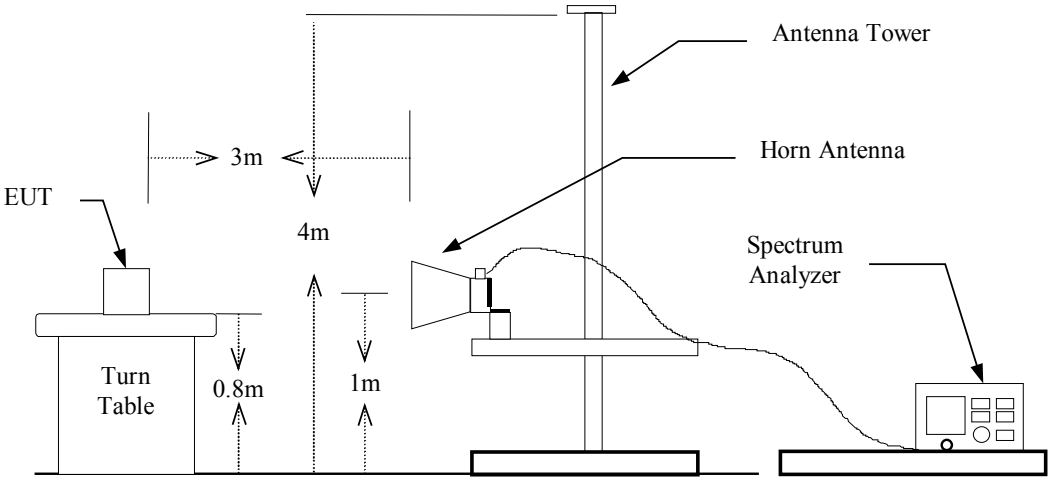


Figure 2: Frequencies measured above 1 GHz configuration



3.3 Test Data

3.3.1 Fundamental and Harmonic Emissions

3.3.1.1

Operated mode : Transmitting (Channel 1)

Test Date : Jun. 27, 2005 Temperature : 24 ℃ Humidity : 50%

Frequency (MHz)	Ant Pol H / V	Reading (dBuV) Peak	Reading (dBuV) AVG	Correct Factor (dB)	Result @3m (dBuV/m) Peak	Result @3m (dBuV/m) AVG	Limit @3m (dBuV/m) Peak	Limit @3m (dBuV/m) AVG
Fundamental								
2410.160	H	56.4	----	31.0	87.4	----	114.0	94.0
2410.160	V	55.8	----	31.0	86.8	----	114.0	94.0
Harmonic								
*4820.320	H	52.6	45.6	1.0	53.6	46.6	74.0	54.0
*4820.320	V	52.7	45.3	1.0	53.7	46.3	74.0	54.0
7230.480	H	58.0	51.8	1.2	59.2	53.0	74.0	54.0
7230.480	V	55.4	49.9	1.2	56.6	51.1	74.0	54.0
9640.640	H	51.9	46.2	4.5	56.4	50.7	74.0	54.0
9640.640	V	51.0	44.8	4.5	55.5	49.3	74.0	54.0
*12050.080	H	52.0	46.7	5.2	57.2	51.9	74.0	54.0
*12050.080	V	51.3	45.8	5.2	56.5	51.0	74.0	54.0
14460.960	H/V	----	----	10.8	----	----	74.0	54.0
16871.120	H/V	----	----	11.2	----	----	74.0	54.0
*19281.280	H/V	----	----	14.2	----	----	74.0	54.0
21691.440	H/V	----	----	15.5	----	----	74.0	54.0
24101.600	H/V	----	----	16.0	----	----	74.0	54.0

Note:

1. *Peak Result =Peak Reading + Correct Factor*
2. *AVG Result = Peak Result + Duty Factor*
3. *If the result of peak value is under the limit of average, the average value doesn't need to be measured.*
4. *"*" means the frequency is in the Restricted Bands.*

3.3.1.2

Operated mode : Transmitting (Channel 2)

Test Date : Jun. 27, 2005 Temperature : 24 ℃ Humidity : 50%

Frequency (MHz)	Ant Pol H / V	Reading (dBuV) Peak	Reading (dBuV) AVG	Correct Factor (dB)	Result @3m (dBuV/m) Peak	Result @3m (dBuV/m) AVG	Limit @3m (dBuV/m) Peak	Limit @3m (dBuV/m) AVG
Fundamental								
2430.100	H	56.7	----	31.0	87.7	----	114.0	94.0
2430.100	V	56.4	----	31.0	87.4	----	114.0	94.0
Harmonic								
*4860.200	H	56.8	51.0	1.0	57.8	52.0	74.0	54.0
*4860.200	V	54.4	48.1	1.0	55.4	49.1	74.0	54.0
*7290.300	H	57.7	51.1	1.2	58.9	52.3	74.0	54.0
*7290.300	V	53.8	47.7	1.2	55.0	48.9	74.0	54.0
9720.400	H	53.6	47.6	4.5	58.1	52.1	74.0	54.0
9720.400	V	52.3	46.4	4.5	56.8	50.9	74.0	54.0
*12150.500	H	52.7	46.8	5.2	57.9	52.0	74.0	54.0
*12150.500	V	49.6	43.6	5.2	54.8	48.8	74.0	54.0
14580.600	H/V	----	----	10.8	----	----	74.0	54.0
17010.700	H/V	----	----	11.2	----	----	74.0	54.0
*19440.800	H/V	----	----	14.2	----	----	74.0	54.0
21870.900	H/V	----	----	15.5	----	----	74.0	54.0
24301.000	H/V	----	----	16.0	----	----	74.0	54.0

Note:

1. *Peak Result =Peak Reading + Correct Factor*
2. *AVG Result = Peak Result + Duty Factor*
3. *If the result of peak value is under the limit of average, the average value doesn't need to be measured.*
4. *"*" means the frequency is in the Restricted Bands.*

3.3.1.3

Operated mode : Transmitting (Channel 4)

Test Date : Jun. 27, 2005 Temperature : 24 ℃ Humidity : 50%

Frequency (MHz)	Ant Pol H / V	Reading (dBuV) Peak	Reading (dBuV) AVG	Correct Factor (dB)	Result @3m (dBuV/m) Peak	Result @3m (dBuV/m) AVG	Limit @3m (dBuV/m) Peak	Limit @3m (dBuV/m) AVG
Fundamental								
2470.250	H	56.9	----	31.0	87.9	----	114.0	94.0
2470.250	V	57.1	----	31.0	88.1	----	114.0	94.0
Harmonic								
*4940.500	H	59.5	52.1	1.0	60.5	53.1	74.0	54.0
*4940.500	V	58.5	51.3	1.0	59.5	52.3	74.0	54.0
*7410.750	H	58.7	51.1	1.2	59.9	52.3	74.0	54.0
*7410.750	V	55.6	47.9	1.2	56.2	49.1	74.0	54.0
9881.000	H	51.5	45.0	4.5	56.0	49.5	74.0	54.0
9881.000	V	49.5	43.7	4.5	54.0	48.2	74.0	54.0
*12351.250	H	54.0	47.7	5.2	59.2	52.9	74.0	54.0
*12351.250	V	51.4	44.7	5.2	56.6	49.9	74.0	54.0
14821.500	H/V	----	----	10.8	----	----	74.0	54.0
17291.750	H/V	----	----	11.2	----	----	74.0	54.0
*19762.000	H/V	----	----	14.2	----	----	74.0	54.0
22232.250	H/V	----	----	15.5	----	----	74.0	54.0
24702.500	H/V	----	----	16.0	----	----	74.0	54.0

Note:

1. *Peak Result =Peak Reading + Correct Factor*
2. *AVG Result = Peak Result + Duty Factor*
3. *If the result of peak value is under the limit of average, the average value doesn't need to be measured.*
4. *"*" means the frequency is in the Restricted Bands.*

3.3.2 Other emissions

3.3.2.1
Operated mode : Transmitting (Channel 1)

Test Date : Jun. 23, 2005 Temperature : 23℃ Humidity : 51 %

Emission Frequency	Meter Reading (dBuV)		CORR'd Factor	Results (dBuV/m)		Limit (3m)	Margins	Table Degree (deg)		Ant. High (m)	
(MHz)	HOR.	VERT.	(dB)	HOR.	VERT.	(dBuV/m)	(dB)	HOR.	VERT.	HOR.	VERT.
114.390	9.1	***	12.5	21.6	***	43.5	-21.9	35	***	1.1	***
115.470	***	8.0	13.5	***	21.5	43.5	-22.0	***	217	***	1.1
259.890	9.7	***	14.6	24.3	***	46.0	-21.7	78	***	1.0	***
260.710	***	9.6	14.6	***	24.2	46.0	-21.8	***	340	***	1.1
394.360	***	7.9	19.4	***	27.3	46.0	-18.7	***	65	***	1.1
395.690	7.8	***	19.4	27.2	***	46.0	-18.8	180	***	1.1	***
545.750	***	7.7	22.9	***	30.6	46.0	-15.4	***	154	***	1.1
550.890	7.6	***	22.9	30.5	***	46.0	-15.5	65	***	1.1	***
770.810	***	6.3	27.2	***	33.5	46.0	-12.5	***	31	***	1.1
773.990	6.4	***	27.2	33.6	***	46.0	-12.4	230	***	1.1	***
935.980	4.9	***	29.4	34.3	***	46.0	-11.7	315	***	1.0	***
938.380	***	4.5	29.9	***	34.4	46.0	-11.6	***	330	***	1.0

Note :
1. Place of Measurement: Measuring site of the ETC.
2. Remark "***" means that the emissions level is too low to be measured.
3. Remark "#" means the noise was low, so record the peak value.
4. Item "Margin" referred to Q.P. limit while there is only peak result.

3.3.2.2
Operated mode : Transmitting (Channel 2)

Test Date : Jun. 23, 2005 Temperature : 23℃ Humidity : 51 %

Emission Frequency (MHz)	Meter Reading (dBuV)		CORR'd Factor (dB)	Results (dBuV/m)		Limit (3m) (dBuV/m)	Margins (dB)	Table Degree (deg)		Ant. High (m)	
	HOR.	VERT.		HOR.	VERT.			HOR.	VERT.	HOR.	VERT.
116.330	***	7.5	13.5	***	21.0	43.5	-22.5	***	167	***	1.1
130.880	7.5	***	14.6	22.1	***	43.5	-21.4	35	***	1.1	***
274.440	***	7.3	15.7	***	23.0	46.0	-23.0	***	248	***	1.1
295.780	7.7	***	16.8	24.5	***	46.0	-21.5	178	***	1.1	***
429.640	7.8	***	20.1	27.9	***	46.0	-18.1	67	***	1.0	***
512.690	***	7.2	22.3	***	29.5	46.0	-16.5	***	147	***	1.1
596.480	6.1	***	23.8	29.9	***	46.0	-16.1	278	***	1.1	***
640.130	***	6.3	25.2	***	31.5	46.0	-14.5	***	73	***	1.1
698.330	6.1	***	26.1	32.2	***	46.0	-13.8	170	***	1.1	***
773.990	***	5.1	27.2	***	32.3	46.0	-13.7	***	251	***	1.0
955.380	5.0	***	29.9	34.9	***	46.0	-11.1	63	***	1.0	***
972.840	***	4.2	30.1	***	34.3	54.0	-19.7	***	353	***	1.1

Note :
1. Place of Measurement: Measuring site of the ETC.
2. Remark "***" means that the emissions level is too low to be measured.
3. Remark "#" means the noise was low, so record the peak value.
4. Item "Margin" referred to Q.P. limit while there is only peak result.

3.3.2.3
Operated mode : Transmitting (Channel 4)

Test Date : Jun. 23, 2005 Temperature : 23℃ Humidity : 51 %

Emission Frequency (MHz)	Meter Reading (dBuV)		CORR'd Factor (dB)	Results (dBuV/m)		Limit (3m) (dBuV/m)	Margins (dB)	Table Degree (deg)		Ant. High (m)	
	HOR.	VERT.		HOR.	VERT.			HOR.	VERT.	HOR.	VERT.
114.390	8.6	***	12.5	21.1	***	43.5	-22.4	66	***	1.1	***
121.180	***	8.2	13.5	***	21.7	43.5	-21.8	***	49	***	1.1
290.930	7.5	***	16.8	24.3	***	46.0	-21.7	169	***	1.1	***
318.090	***	7.6	17.5	***	25.1	46.0	-20.9	***	123	***	1.1
473.290	***	8.6	21.1	***	29.7	46.0	-16.3	***	318	***	1.1
543.130	8.2	***	22.9	31.1	***	46.0	-14.9	183	***	1.1	***
615.880	***	6.7	24.5	***	31.2	46.0	-14.8	***	262	***	1.0
676.990	6.5	***	25.7	32.2	***	46.0	-13.8	74	***	1.1	***
678.930	***	6.6	25.7	***	32.3	46.0	-13.7	***	21	***	1.0
730.340	6.4	***	26.6	33.0	***	46.0	-13.0	238	***	1.0	***
838.980	***	5.8	28.0	***	33.8	46.0	-12.2	***	69	***	1.0
963.140	5.6	***	30.1	35.7	***	54.0	-18.3	280	***	1.1	***

Note :
1. Place of Measurement: Measuring site of the ETC.
2. Remark "***" means that the emissions level is too low to be measured.
3. Remark "#" means the noise was low, so record the peak value.
4. Item "Margin" referred to Q.P. limit while there is only peak result.

3.4 Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain (if any) from the measured reading. The basic equation with a sample calculation is as follows:

RESULT = READING + CORR. FACTOR

where CORR. FACTOR = Antenna FACTOR + Cable FACTOR

Assume a receiver reading of 22.5 dB μ V is obtained. The Antenna Factor of 14.5 and a Cable Factor of 1.5 is added. The total of field strength is 38.5 dB μ V/m.

RESULT = 22.5 + 14.5 + 1.5 = 38.5 dB μ V/m
Level in μ V/m = Common Antilogarithm[(38.5 dB μ V/m)/20]
= 84.14 μ V/m

3.5 Radiated Test Equipment

The following instrument are used for radiated emissions measurement:

Equipment	Manufacturer	Model No.	Next Cal. Due
EMI Test Receiver	Hewlett-Packard	8546A	09/06/2005
Horn Antenna	EMCO	3115	06/04/2006
LogBicone Antenna	Schwarzbeck	9160	10/26/2005
Horn Antenna	EMCO	3116	07/19/2005
Preamplifier	Hewlett-Packard	8449B	09/16/2005
Spectrum Analyzer	Hewlett-Packard	8564EC	09/15/2005

Note: The standards used to perform this calibration are traceable to NML/ROC, NIST/USA and NPL.

3.6 Measuring Instrument Setup

Measuring instrument setup in measured frequency band when specified detector function is used:

Frequency Band (MHz)	Instrument	Function	Resolution Bandwidth	Video Bandwidth
30 to 1000	RF Test Receiver	Quasi-Peak	120 kHz	300 kHz
	RF Test Receiver	Peak	120 kHz	300 kHz
Above 1000	Spectrum Analyzer	Peak	1 MHz	1 MHz
	Spectrum Analyzer	Average	1 MHz	10 Hz

4. CONDUCTED EMISSION MEASUREMENT

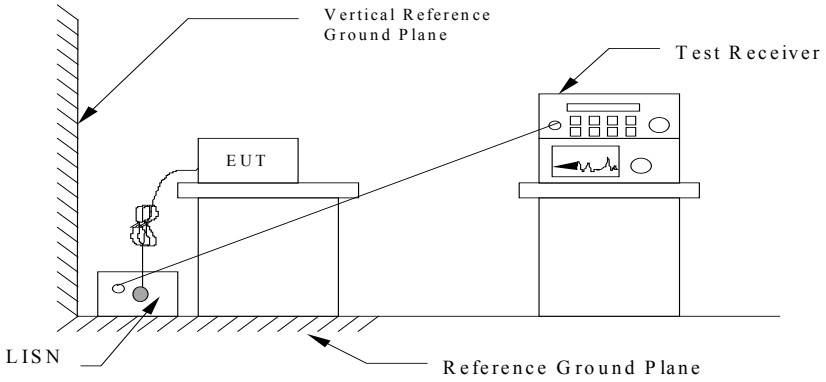
4.1 Standard Applicable

For unintentional and intentional device, Line Conducted Emission Limits are in accordance to § 15.107(a) and § 15.207(a) respectively. Both Limits are identical specification.

4.2 Measurement Procedure

1. Setup the configuration per figure 3.
2. A preliminary scan with a spectrum monitor is performed to identify the frequency of emission that has the highest amplitude relative to the limit by operating the EUT in selected modes of operation, typical cable positions, and with a typical system configuration.
3. Record the 6 highest emissions relative to the limit.
4. Measure each frequency obtained from step 3 by a test receiver set on quasi peak detector function, and then record the accuracy frequency and emission level. If all emissions measured in the specified band are attenuated more than 20 dB from the limit, this step would be ignored, and the peak detector function would be used.
5. Confirm the highest three emissions with variation of the EUT cable configuration and record the final data.
6. Repeat all above procedures on measuring each operation mode of EUT.

Figure 3 : Conducted emissions measurement configuration



4.3 Conducted Emission Data

4.3.1

Operation Mode: Transmitting (Channel 1)

Test Date : Jun. 24, 2005 Temperature : 25℃ Humidity : 49%

Freq. (MHz)	Meter Reading (dBuV)				Factor (dB)	Result (dBuV)				Limit (dBuV)		Margins (dB)
	Q.P Value		AVG. Value			Q.P Value		AVG. Value		Q.P Value	AVG. Value	Q.P. or AVG.
	L1	L2	L1	L2		L1	L2	L1	L2			
0.150	***	16.4	----	----	0.2	***	16.6	----	----	66.0	56.0	-49.4
0.154	18.9	***	----	----	0.2	19.1	***	----	----	65.8	55.8	-46.7
0.216	12.3	***	----	----	0.2	12.5	***	----	----	63.0	53.0	-50.5
0.278	***	11.9	----	----	0.2	***	12.1	----	----	60.9	50.9	-48.8
0.656	***	14.0	----	----	0.2	***	14.2	----	----	56.0	46.0	-41.8
1.097	11.9	***	----	----	0.2	12.1	***	----	----	56.0	46.0	-43.9
2.203	***	13.0	----	----	0.2	***	13.2	----	----	56.0	46.0	-42.8
2.390	13.5	***	----	----	0.2	13.7	***	----	----	56.0	46.0	-42.3
3.925	15.5	***	----	----	0.2	15.7	***	----	----	56.0	46.0	-40.3
7.902	***	15.2	----	----	0.2	***	15.4	----	----	60.0	50.0	-44.6
17.964	15.7	***	----	----	0.4	16.1	***	----	----	60.0	50.0	-43.9
18.573	***	16.0	----	----	0.4	***	16.4	----	----	60.0	50.0	-43.6

Note:

1. "***" means the value was too low to be measured.
2. If the data table appeared symbol of "----" means the Q.P. value is under the limit of AVG. so, the AVG. value doesn't need to be measured.
3. "#" means the noise was too low, so record the peak value.
4. The estimated measurement uncertainty of the result measurement is ±2.5dB.
5. Please refer to page 20 to page 21 for chart.

Conducted Emission

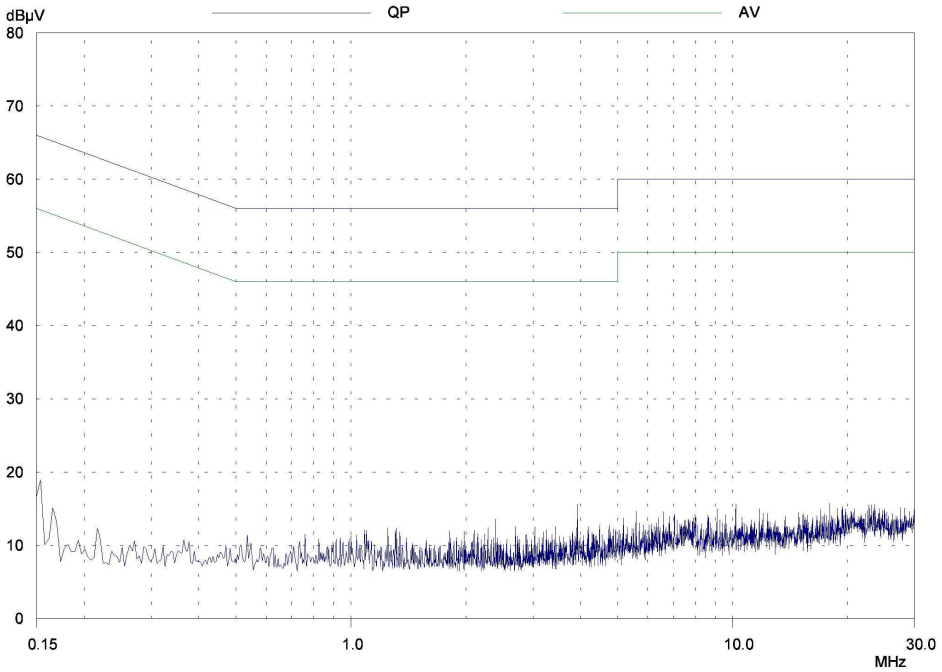
Peak Value

EUT:	AV SENDER
Manuf:	
Op Cond:	2.4G_Tx_ CH1
Operator:	Jengde
Test Spec:	FCC
Comment:	L1

Result File: CH1_L1.dat : New Measurement

Final Measurement:

Detector:	
Meas Time:	1sec
Peaks:	8
Acc Margin:	10 dB



Conducted Emission

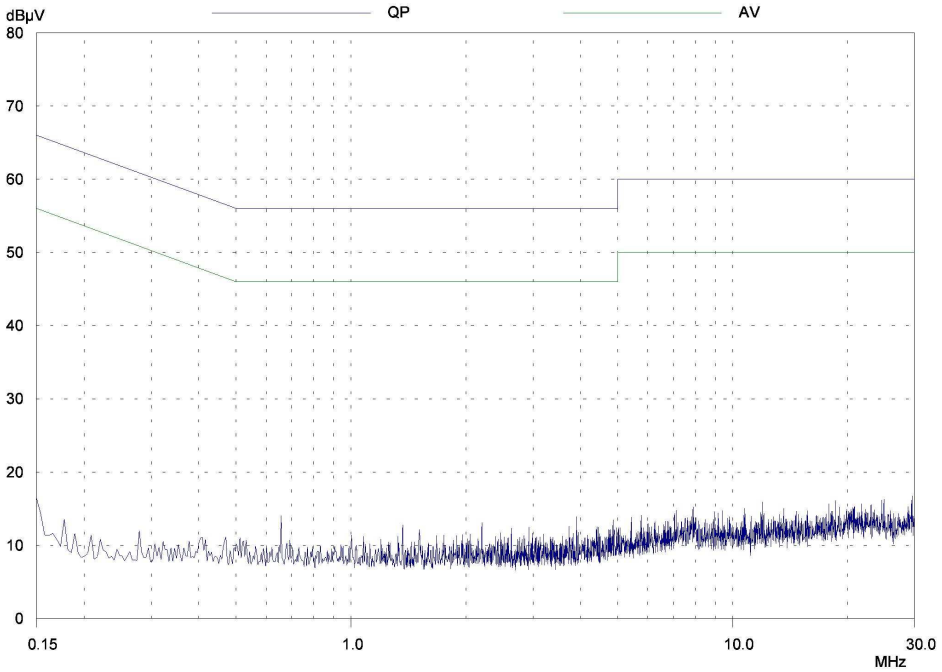
Peak Value

EUT:	AV SENDER
Manuf:	
Op Cond:	2.4G_Tx_ CH1
Operator:	Jengde
Test Spec:	FCC
Comment:	L2

Result File: CH1_L2.dat : New Measurement

Final Measurement:

Detector:	
Meas Time:	1sec
Peaks:	8
Acc Margin:	10 dB



4.3.2

Operation Mode: Transmitting (Channel 2)

Test Date : Jun. 24, 2005 Temperature : 25℃ Humidity : 49%

Freq. (MHz)	Meter Reading (dBuV)				Factor (dB)	Result (dBuV)				Limit (dBuV)		Margins (dB)
	Q.P Value		AVG. Value			Q.P Value		AVG. Value		Q.P Value	AVG. Value	Q.P. or AVG.
	L1	L2	L1	L2		L1	L2	L1	L2			
0.165	15.5	13.1	----	----	0.2	15.7	13.3	----	----	65.2	55.2	-49.5
0.235	13.5	***	----	----	0.2	13.7	***	----	----	62.3	52.3	-48.6
0.290	***	13.3	----	----	0.2	***	13.5	----	----	60.5	50.5	-47.0
0.867	***	12.5	----	----	0.2	***	12.7	----	----	56.0	46.0	-43.3
1.097	12.2	***	----	----	0.2	12.4	***	----	----	56.0	46.0	-43.6
3.906	13.1	***	----	----	0.2	13.3	***	----	----	56.0	46.0	-42.7
4.949	***	13.8	----	----	0.2	***	14.0	----	----	56.0	46.0	-42.0
7.425	***	15.4	----	----	0.2	***	15.6	----	----	60.0	50.0	-44.4
10.609	15.2	***	----	----	0.3	15.5	***	----	----	60.0	50.0	-44.5
17.845	***	15.9	----	----	0.4	***	16.3	----	----	60.0	50.0	-43.7
19.730	15.5	***	----	----	0.4	15.9	***	----	----	60.0	50.0	-44.1

Note:

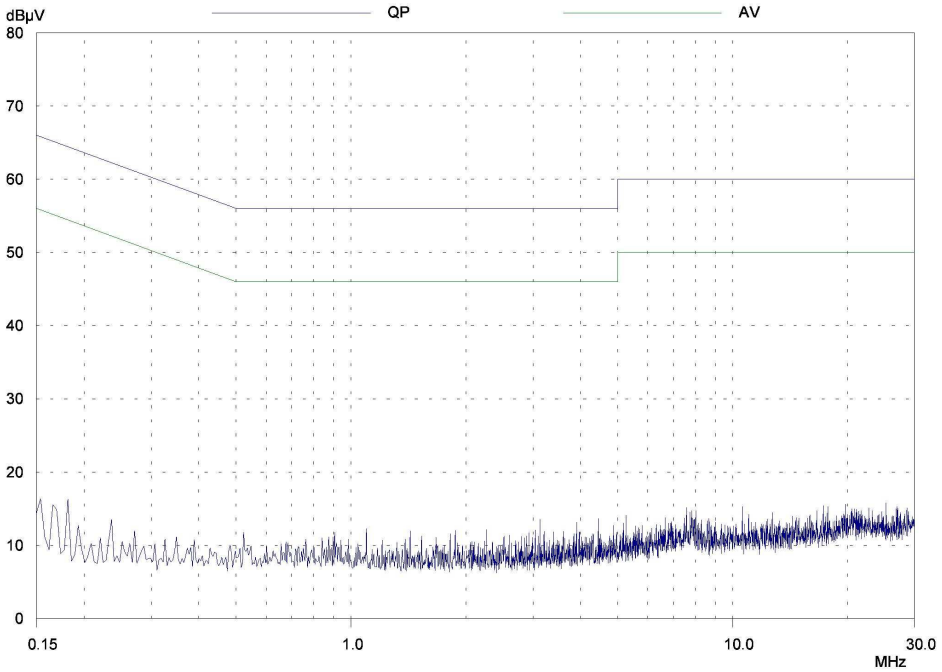
1. "***" means the value was too low to be measured.
2. If the data table appeared symbol of "----" means the Q.P. value is under the limit of AVG. so, the AVG. value doesn't need to be measured.
3. "#" means the noise was too low, so record the peak value.
4. The estimated measurement uncertainty of the result measurement is ±2.5dB.
5. Please refer to page 23 to page 24 for chart.

Conducted Emission

Peak Value

EUT:	AV SENDER
Manuf:	
Op Cond:	2.4G_Tx_ CH2
Operator:	Jengde
Test Spec:	FCC
Comment:	L1
Result File:	CH2_L1.dat : New Measurement

Final Measurement:	Detector:	
	Meas Time:	1sec
	Peaks:	8
	Acc Margin:	10 dB

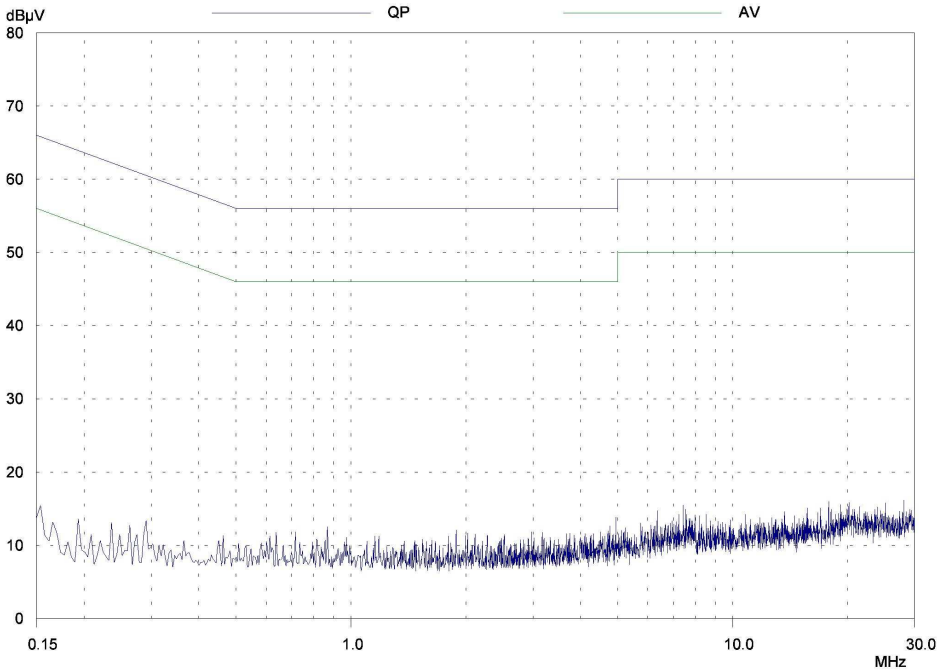


Conducted Emission

Peak Value

EUT:	AV SENDER
Manuf:	
Op Cond:	2.4G_Tx_ CH2
Operator:	Jengde
Test Spec:	FCC
Comment:	L2
Result File:	CH2_L2.dat : New Measurement

Final Measurement:	Detector:	
	Meas Time:	1sec
	Peaks:	8
	Acc Margin:	10 dB



4.3.3

Operation Mode: Transmitting (Channel 4)

Test Date : Jun. 24, 2005 Temperature : 25℃ Humidity : 49%

Freq. (MHz)	Meter Reading (dBuV)				Factor (dB)	Result (dBuV)				Limit (dBuV)		Margins (dB)
	Q.P Value		AVG. Value			Q.P Value		AVG. Value		Q.P Value	AVG. Value	Q.P. or AVG.
	L1	L2	L1	L2		L1	L2	L1	L2			
0.181	***	12.7	----	----	0.2	***	12.9	----	----	64.4	54.4	-51.5
0.278	10.6	***	----	----	0.2	10.8	***	----	----	60.9	50.9	-50.1
0.325	***	13.2	----	----	0.2	***	13.4	----	----	59.6	49.6	-46.2
0.442	11.2	***	----	----	0.2	11.4	***	----	----	57.0	47.0	-45.6
0.937	12.1	***	----	----	0.2	12.3	***	----	----	56.0	46.0	-43.7
2.153	***	14.9	----	----	0.2	***	15.1	----	----	56.0	46.0	-40.9
2.296	13.0	***	----	----	0.2	13.2	***	----	----	56.0	46.0	-42.8
4.347	***	13.4	----	----	0.2	***	13.6	----	----	56.0	46.0	-42.4
6.679	14.0	***	----	----	0.2	14.2	***	----	----	60.0	50.0	-45.8
7.687	***	15.1	----	----	0.2	***	15.3	----	----	60.0	50.0	-44.7
9.335	14.9	***	----	----	0.2	15.1	***	----	----	60.0	50.0	-44.9
24.468	***	16.7	----	----	0.6	***	17.3	----	----	60.0	50.0	-42.7

Note:

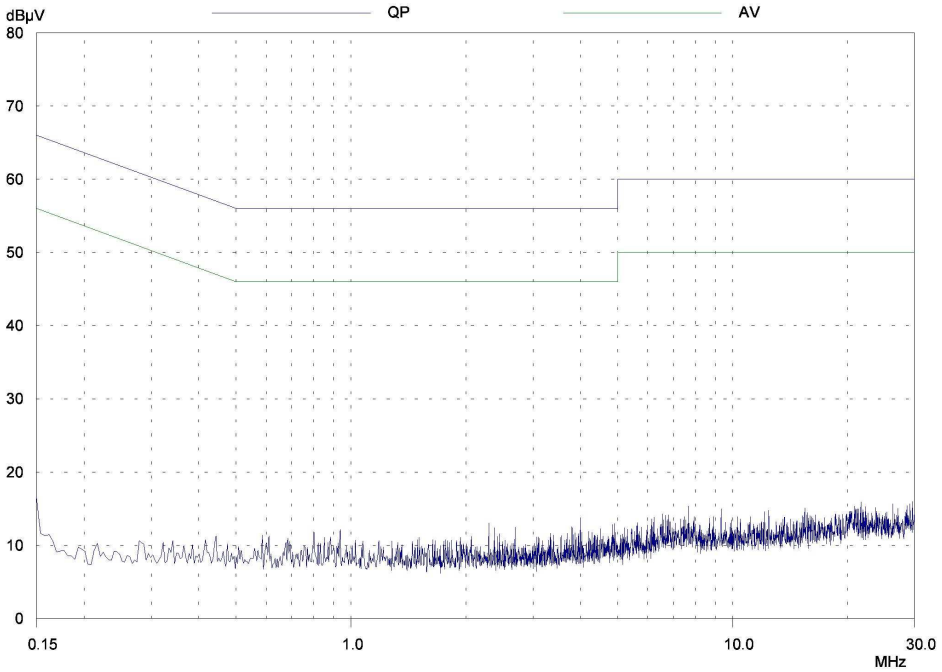
1. "***" means the value was too low to be measured.
2. If the data table appeared symbol of "----" means the Q.P. value is under the limit of AVG. so, the AVG. value doesn't need to be measured.
3. "#" means the noise was too low, so record the peak value.
4. The estimated measurement uncertainty of the result measurement is ±2.5dB.
5. Please refer to page 26 to page 27 for chart.

Conducted Emission

Peak Value

EUT:	AV SENDER
Manuf:	
Op Cond:	2.4G_Tx_ CH4
Operator:	Jengde
Test Spec:	FCC
Comment:	L1
Result File:	CH4_L1.dat : New Measurement

Final Measurement:	Detector:	
	Meas Time:	1sec
	Peaks:	8
	Acc Margin:	10 dB

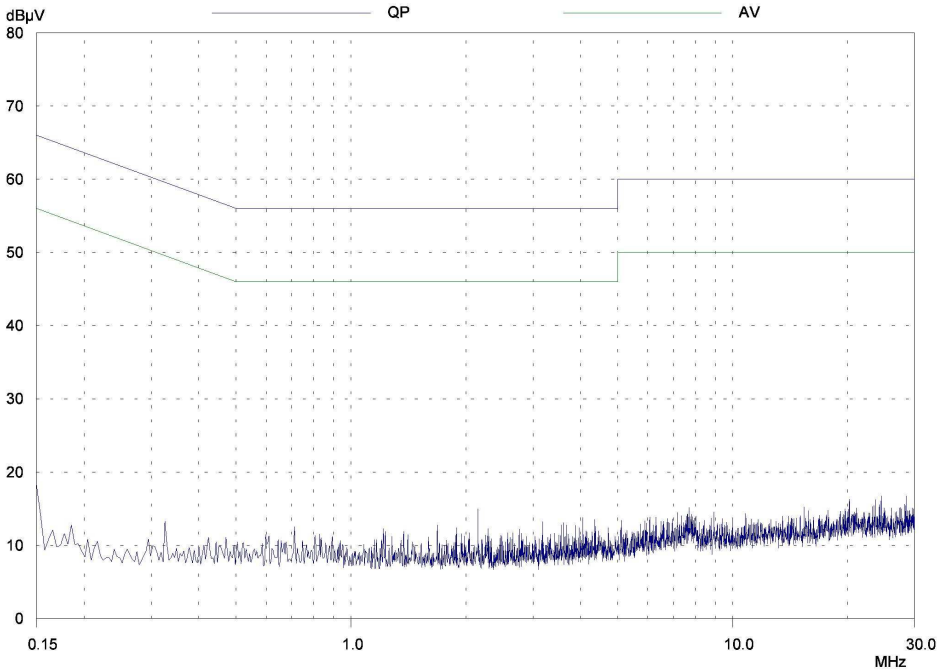


Conducted Emission

Peak Value

EUT:	AV SENDER
Manuf:	
Op Cond:	2.4G_Tx_ CH4
Operator:	Jengde
Test Spec:	FCC
Comment:	L2
Result File:	CH4_L2.dat : New Measurement

Final Measurement:	Detector:	
	Meas Time:	1sec
	Peaks:	8
	Acc Margin:	10 dB



4.4 Result Data Calculation

The result data is calculated by adding the LISN Factor to the measured reading. The basic equation with a sample calculation is as follows:

RESULT = READING + LISN FACTOR (Included Cable Loss)

Assume a receiver reading of 22.5 dB μ V is obtained, and LISN Factor is 0.1 dB, then the total of disturbance voltage is 22.6 dB μ V.

RESULT = 22.5 + 0.1 = 22.6 dB μ V

Level in μ V = Common Antilogarithm[(22.6 dB μ V)/20]

= 13.48 μ V

4.5 Conducted Measurement Equipment

The following test equipment are used during the conducted test.

Equipment	Manufacturer	Model No.	Next Cal. Due
RF Test Receiver	Rohde and Schwarz	ESCS30	03/29/2006
Line Impedance Stabilization network	EMCO	3825	11/09/2005