

Test Engineer :

ones Isai

Jones Tsai

- Frequency Range of Test : from 150KHz to 30 MHz.
- Test Mode : Mode 4 •
- . Temperature : 25.5°C
- Relative Humidity : 52 %
- The test was passed at the minimum margin that marked by the frame in the following table



Site	CO01-HV	
Condition	CNS/VCCI/CISPR-B 2003 2001/008 LINE	
EUT	: 802.11a/b/g Access Point	
Power	: 120Vac/60Hz	
Model	: WASP-5100	
Memo	: 802.11 a+g link mode	
		_

JT	: 802.11a/b/g Access]

. 002.11 0	i g muz mo	a.c					
		Over	Limit	Read	Probe	Cable	
Freq	Level	Limit	Line	Level	Factor	Loss 1	Remark

ŝ	MHz	dBuV	dB	dBuV	dBuV	dB	dB
1	0.606	36.99	-19.01	56.00	36.86	0.10	0.03 QP
2	0.606	28.52	-17.48	46.00	28.39	0.10	0.03 Average
3	12.810	46.18	-3.82	50.00	45.87	0.20	0.11 Average
4	12.810	46.26	-13.74	60.00	45.95	0.20	0.11 QP
5	14.214	46.94	-13.06	60.00	46.62	0.20	0.12 QP
6	14.214	47.27	-2.73	50.00	46.95	0.20	0.12 Average
7	17.695	48.48	-11.52	60.00	48.08	0.26	0.14 QP
8	17.695	48.85	-1.15	50.00	48.45	0.26	0.14 Average
9	18.489	44.65	-15.35	60.00	44.24	0.27	0.14 QP
10	18.489	45.02	-4.98	50.00	44.61	0.27	0.14 Average
11	19.710	47.27	-2.73	50.00	46.82	0.30	0.15 Average
12	19.710	47.31	-12.69	60.00	46.86	0.30	0.15 QP

SPORTON International Inc.
TEL : 886-2-2696-2468
FAX : 886-2-2696-2255



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5.6 Test of Radiated Emission

Radiated emissions from 30 MHz to 40GHz were measured according to the methods defines in ANSI C63.4-2001. The EUT was placed, 0.8 meter above the ground plane, as shown in section 5.6.3. The interface cables and equipment positions were varied within limits of reasonable applications to determine the positions producing maximum radiated emissions

5.6.1 Major Measuring Instruments

Amplifier	(MITEQ AFS44)
RF Gain	40 dB
Signal Input	100 MHz to 26.5 GHz
Amplifier	(PA-103)
RF Gain	30 dB
Signal Input	100 kHz to 1 GHz
 Spectrum analyzer 	(R&S FSP40)
Attenuation	10 dB
Start Frequency	1 GHz
Stop Frequency	25 GHz
Resolution Bandwidth	1 MHz
Video Bandwidth	1 MHz
Signal Input	9 KHz to 40 GHz

5.6.2 Test Procedures

- 1. The EUT was placed on a rotatable table top 0.8 meter above ground.
- 2. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
- 3. The table was rotated 360 degrees to determine the position of the highest radiation.
- 4. The antenna is a broadband antenna and its height is varied between one meter and four meters above ground to find the maximum value of the field strength both horizontal polarization and vertical polarization of the antenna are set to make the measurement.
- 5. For each suspected emission the EUT was arranged to its worst case and then tune the antenna tower (from 1 M to 4 M) and turn table (from 0 degree to 360 degrees) to find the maximum reading.
- 6. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
- 7. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method and reported.
- 8. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

5.6.3 Typical Test Setup Layout of Radiated Emission



FCC TEST REPORT

5.6.4 Test Result of Radiated Emission

5.6.4.1 Antenna 1

- Test Mode: 802.11a TX Frequency = 5180 MHz
- Test Distance : 3 M
- Temperature : 25.3°C
- Relative Humidity :53.5 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- . Corrected Reading : Probe Factor + Cable Loss + Read Level - Preamp Factor = Level



164.470 26.28 -17.22 43.50 38.79 12.94 2.32 27.77 Peak

Memo	: 11a . : WS2	: WS2000								
	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remar	
8	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB	0	
1	53.460	28.77	-11.23	40.00	45.36	10.16	1.24	27.99	Peak	
2	131.660	26.05	-17.45	43.50	40.39	11.43	2.07	27.84	Peak	

: AC 120V / 60Hz

: WASP-5110

Power

Model

3

Ant Table

Pos

deg

3.022

Pos

CM 1222.2

Loss Factor Remark







Remark: The "X" represent a fundamental frequency.



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 Trace: (Discrete)

 Site
 : 03CH06

 Condition
 : FCC CLASS-B 3m HF-HORN AH-118 VERTICAL

 EUT
 : 802.11a/b/g Access Point

 Power
 : AC 120V / 60Hz

 Model
 : WASP - S110

 Memo
 : 802.11a TX 5180MHz

7400.

7800.

Frequency (MHz)

8200.

8600.

0 7000

49

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Remark: Frequency from 18GHz to 40GHz, the emission emitted by the EUT is too low to be measured.

Test Engineer : Jones Tsai

Jones Tsai

- Test Mode: 802.11a TX Frequency = 5240 MHz
- Test Distance : 3 M
- Temperature : 25.3°C
- Relative Humidity :53.5 %
- Emission level (dBuV/m) = 20 log Emission level (uV/m)
- Corrected Reading : Probe Factor + Cable Loss + Read Level Preamp Factor = Level
- The test was passed at the minimum margin that marked by the frame in the following table



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