FCC TEST REPORT

REPORT NO.: RF920619H03G
MODEL NO.: J8130A
RECEIVED: Feb. 20, 2004
TESTED: Mar. 15 to 29, 2004 and Apr. 16 to 27, 2004

APPLICANT: Accton Technology Corporation

ADDRESS: No.1, Creation Rd. III, Science-based Industrial Park, Hsinchu, Taiwan, R.O.C.

ISSUED BY: Advance Data Technology Corporation

LAB LOCATION: No. 81-1, Lu Liao Keng, 9 Ling, Wu Lung Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien, Taiwan, R.O.C.

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1 CERTIFICATION

Reference No.:930225H03

PRODUCT : hp procurve wireless AP 420 na

BRAND NAME : HP

MODEL NO. : J8130A

APPLICANT : Accton Technology Corporation

STANDARDS : 47 CFR Part 15, Subpart C (Section 15.247), ANSI C63.4-1992

We, **Advance Data Technology Corporation**, declard that one sample (Model: J8130A) of the designation has been tested in our facility from Mar. 15 to 29, 2004 and Apr. 16 to 27, 2004. The test record, data evaluation and Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions herein specified.

PREPARED BY: Carol Liao , **DATE:** *May 18, 2004*

(Carol Liao)

APPROVED BY: _____ , **DATE:** *May 18, 2004*

(Eric Lin, Manager)

Revision Note:

Revision No.	Revised Date	Comment
Rev.1.0	April 27, 2004	Report was re-issued due to the antenna gain of all antennas have been revised.
Rev.2.0	May 18, 2004	Report was re-issued due to the antenna gain of antenna 2and 4 have been revised.

2 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: 47 CFR Part 15, Subpart C			
Standard Section	**Test Type and Limit**	**Result**	**REMARK**
15.207	AC Power Conducted Emission Limit: 48dBuV	PASS	Meet the requirement of limit Minimum passing margin is –10.65 dBuV at 0.258 MHz
15.247(b)	Maximum Peak Output Power Limit: max. 30dBm	PASS	Meet the requirement of limit
15.247(c)	Transmitter Radiated Emissions Limit: Table 15.209	PASS	Meet the requirement of limit Minimum passing margin is – 0.70 dBuV at 2390.00MHz and 2483.50MHz
15.247(c)	Band Edge Measurement Limit: 20 dB less than the peak value of fundamental frequency	PASS	Meet the requirement of limit

NOTE: This report is prepared for FCC class II permissive change. Only conducted emission, radiated emission, Maximum Peak Output Power and Band Edge Measurement conducted emission were presented in this test report.

3 GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	hp procurve wireless AP 420 na
MODEL NO.	J8130A
POWER SUPPLY	3.3VDC from Power Adapter or POE
MODULATION TYPE	CCK, OFDM, DBPSK, DQPSK
RADIO TECHNOLOGY	DSSS, OFDM
TRANSFER RATE	1/2/5.5/6/9/11/12/18/24/36/48/54Mbps
FREQUENCY RANGE	2412MHz ~ 2462MHz
NUMBER OF CHANNEL	11
OUTPUT POWER	802.11b: 19.10dBm draft 802.11g: 20.50dBm
ANTENNA TYPE	Please see note 1
DATA CABLE	NA
I/O PORTS	RJ 45 (WAN) Port x 1, Console Port x 1
ASSOCIATED DEVICES	NA

NOTE:

1. This report is prepared for FCC class II permissive change. The difference compared with the original design is as follows:

◆ Add four new antennas:

No.	*Model No.*	*Gain (dBi)*	*Antenna Type*	*Antenna Connector*
1	J8441A	4.4 dBi	Omnidirectional Antenna	Reverse SMA (male)
2	J8442A	1.5 dBi	Omnidirectional Diversity Antenna	Reverse SMA (male)
3	J8443A	6.7 dBi	Contemporary Patch Directional Antenna	Reverse SMA (male)
4	J8445A	6.5 dBi	Panel Directional Diversity Antenna	Reverse SMA (male)

2. The EUT was powered either adapter or POE (Power Over Ethernet):

Adapter:	
Brand:	DVE
Model No.:	DSA-0121D-03
Input power :	100-240Vac 0.4A 50/60Hz
Output power :	+3.3Vdc 4.0A

POE:	
Brand:	Power Dsine
Model No.:	Power Dsine 4001
Input power :	100-240Vac 50/60Hz
Output power :	0.34-0.17A
***The POE supplied power to EUT via POE port, only used on testing.**	

3. For a more detailed features description, please refer to the manufacturer's specifications or User's Manual.

3.2 DESCRIPTION OF TEST MODES

Eleven channels are provided in this EUT.

Channel	Frequency	Channel	Frequency
1	2412 MHz	7	2442 MHz
2	2417 MHz	8	2447 MHz
3	2422 MHz	9	2452 MHz
4	2427 MHz	10	2457 MHz
5	2432 MHz	11	2462 MHz
6	2437 MHz		

NOTE:

1. Below 1 GHz, the channel 1, 6, and 11 were pre-tested in chamber. The channel 11, worst case one, was chosen for final test.
2. Above 1 GHz, the channel 1, 6, and 11 were tested individually.
3. Transfer rate, 11Mbps with CCK technique and 6Mbps with OFDM technique, the worst case, were chosen for final test.
4. Below 1 GHz of radiated test, the adapter and POE were pre-tested in chamber. The POE, worst case one, was chosen for final test.

3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is an hp procurve wireless AP 420 na. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

47 CFR Part 15, Subpart C. (15.247)
ANSI C63.4 : 1992

All tests have been performed and recorded as per the above standards.

NOTE: The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of 47CFR Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

3.4 DESCRIPTION OF SUPPORT UNITS

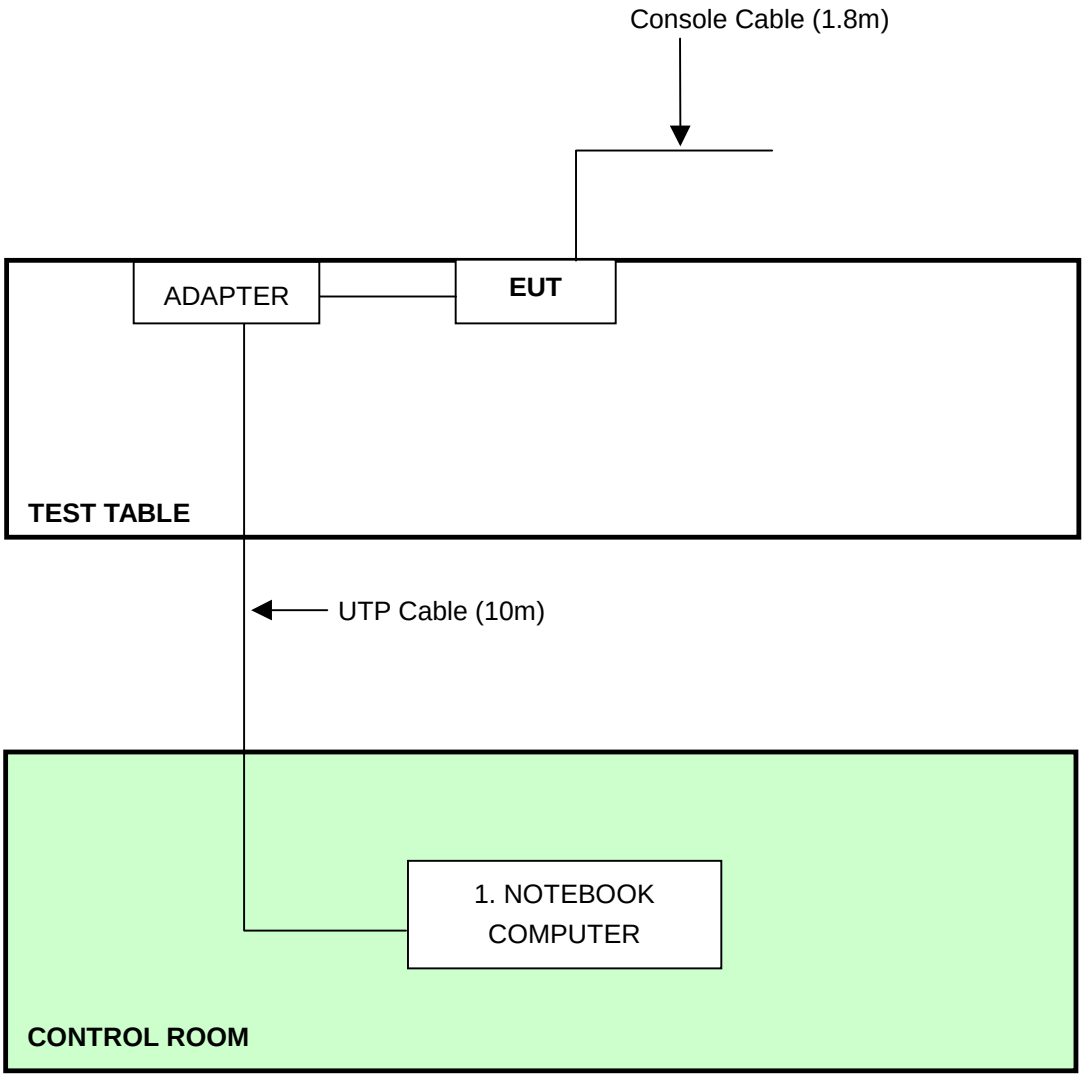
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

No.	Product	Brand	Model No.	Serial No.	FCC ID
1	NOTEBOOK	DELL	PP01L	TW-09C748-12800-1A3-1999	FCC DoC

No.	Signal cable description
1	NA

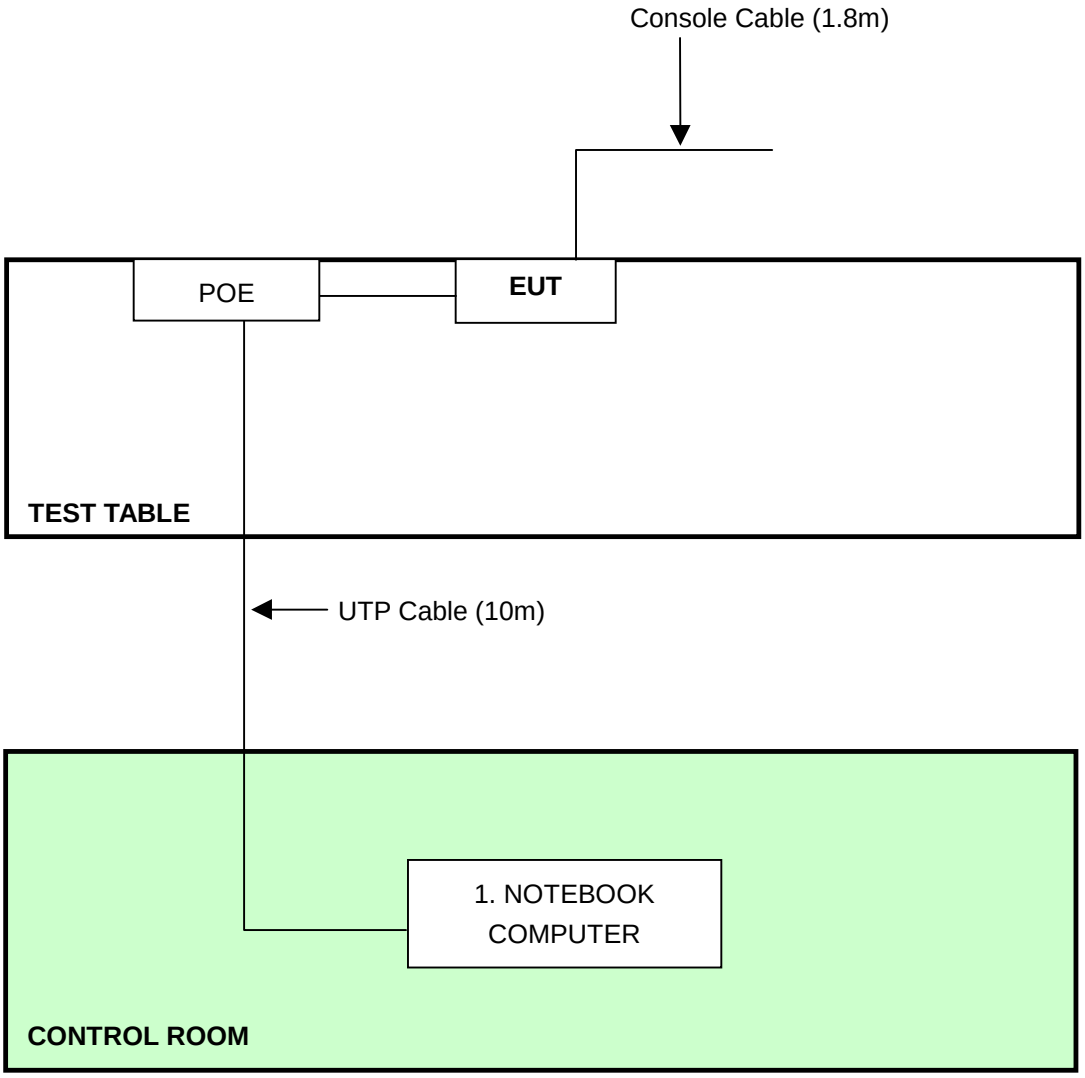
Note: 1. All power cords of the above support units are unshielded (1.8m).

WITH ADAPTER:



NOTE: 1. Support unit 1 was kept in the control room during the test.
2. Please refer to the photos of test configuration in Item 5 also.

WITH POE:



NOTE: 1. Support unit 1 was kept in the control room during the test.
2. Please refer to the photos of test configuration in Item 5 also.

4 TEST TYPES AND RESULTS

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dBμV)	
	Quasi-peak	Average
0.15-0.5 0.5-5 5-30	66 to 56 56 60	56 to 46 46 50

NOTE:
1. The lower limit shall apply at the transition frequencies.
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.
3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
ROHDE & SCHWARZ Test Receiver	ESCS 30	847124/029	Dec. 04, 2004
ROHDE & SCHWARZ LISN (for EUT)	ESHS-Z5	848773/004	Nov. 04, 2004
KYORITSU LISN (for peripheral)	KNW-407	8/1395/12	Jul. 27, 2004
RF Cable (JETBAO)	RG233/U	Cable_CA_01	Jul. 03, 2004
Terminator(for KYORITSU)	50	3	May 12, 2004
Software	Cond-V2e	NA	NA

NOTE:
1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in ADT Shielded Room No. A.
3. The VCCI Con A Registration No. is C-817.

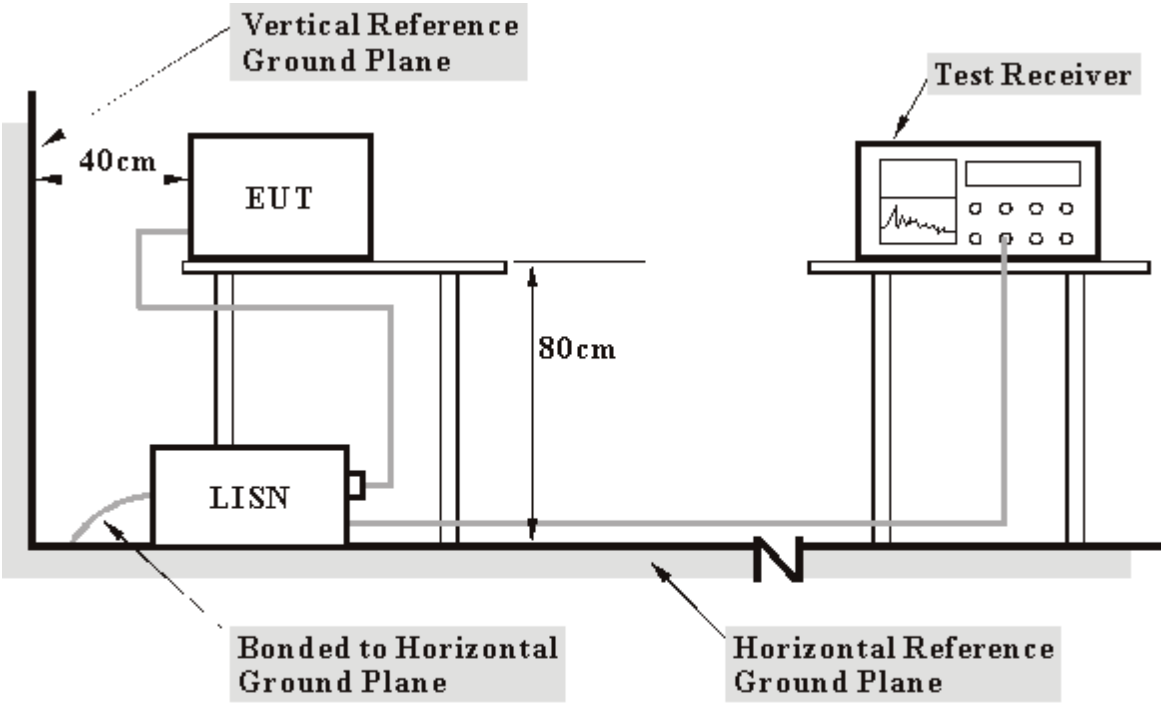
3. TEST PROCEDURES

a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.

b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

c. The frequency range from 150 kHz to 30 MHz was searched. Emission levels over 10dB under the prescribed limits could not be reported

4.1.3 TEST SETUP



Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

4.1.4 EUT OPERATING CONDITIONS

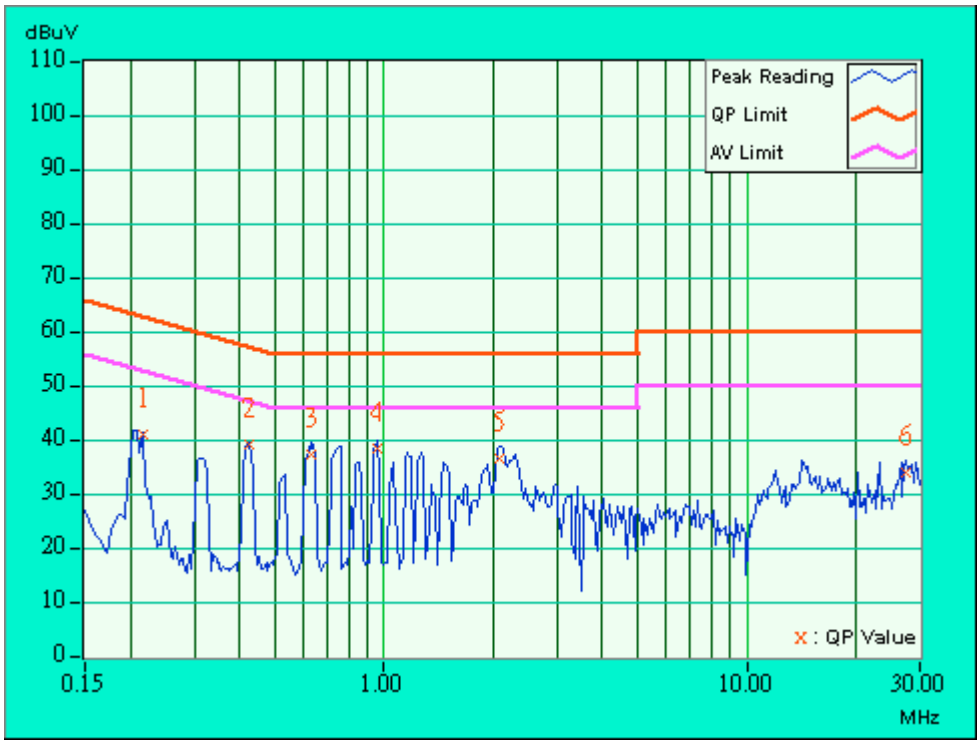
a. Placed the EUT on the testing table.
b. Prepared another computer system to act as a communication partner and placed it outside of testing area.
c. The communication partner run “Art 4.5 Build 6” test program to enable EUT under transmission/receiving condition continuously at specific channel frequency via RJ 45 cable and wireless.
d. The communication partner sent data to EUT by command "PING".

4.1.5 TEST RESULTS

EUT	hp procurve wireless AP 420 na	**MODEL**	J8130A
MODE	With Adapter, Channel 11	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Line (L)
ENVIRONMENTAL CONDITIONS	24 deg. C, 58%RH, 979 hPa	**TESTED BY**	Eric Lee

No	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.216	0.20	39.76	-	39.96	-	62.98	52.98	-23.02	-
2	0.427	0.20	38.00	-	38.20	-	57.30	47.30	-19.10	-
3	0.627	0.24	36.15	-	36.39	-	56.00	46.00	-19.61	-
4	0.959	0.29	37.27	-	37.56	-	56.00	46.00	-18.44	-
5	2.091	0.30	35.52	-	35.82	-	56.00	46.00	-20.18	-
6	27.344	1.30	32.80	-	34.10	-	60.00	50.00	-25.90	-

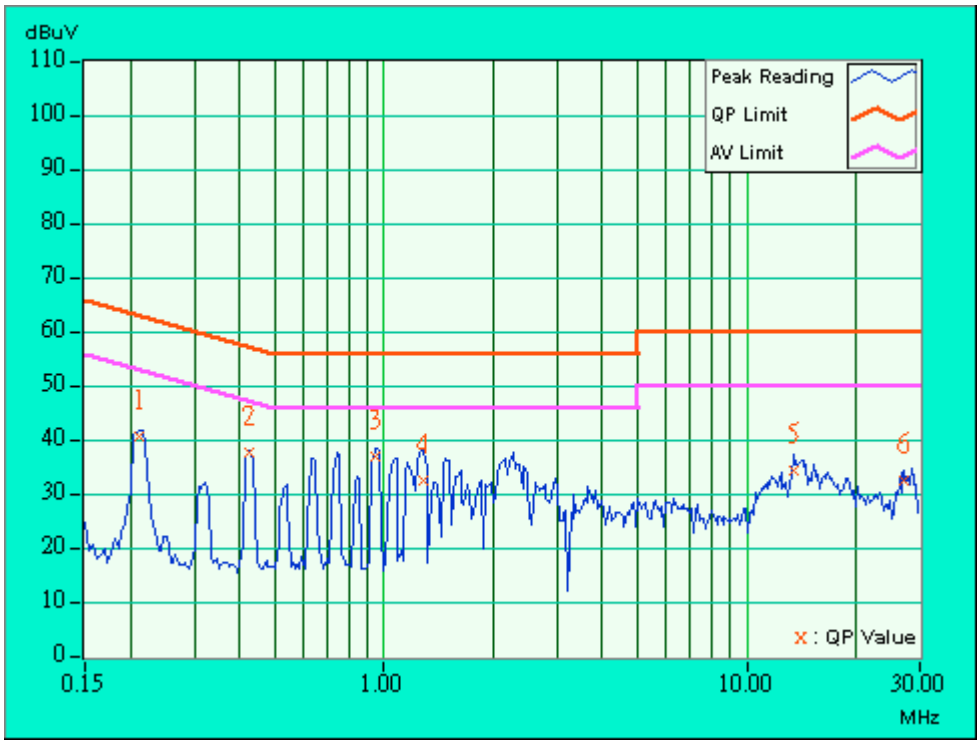
NOTES: (1) "*": Undetectable
(2) Q.P. and AV. are abbreviations of quasi-peak and average.
(3) "-": The Quasi-peak reading value also meets an average limit, thus measurement with the average detector is unnecessary.
(4) The emission levels of other frequencies were very low against the limit.
(5) Correction Factor = Insertion loss + Cable loss
(6) Margin value = Emission level - Limit value



EUT	hp procurve wireless AP 420 na	**MODEL**	J8130A
MODE	With Adapter, Channel 11	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Neutral (N)
ENVIRONMENTAL CONDITIONS	24 deg. C, 58%RH, 979 hPa	**TESTED BY**	Eric Lee

No	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.213	0.20	39.49	-	39.69	-	63.11	53.11	-23.42	-
2	0.427	0.20	36.59	-	36.79	-	57.30	47.30	-20.51	-
3	0.951	0.29	35.90	-	36.19	-	56.00	46.00	-19.81	-
4	1.287	0.30	31.50	-	31.80	-	56.00	46.00	-24.20	-
5	13.418	0.91	33.40	-	34.31	-	60.00	50.00	-25.69	-
6	27.219	1.16	31.44	-	32.60	-	60.00	50.00	-27.40	-

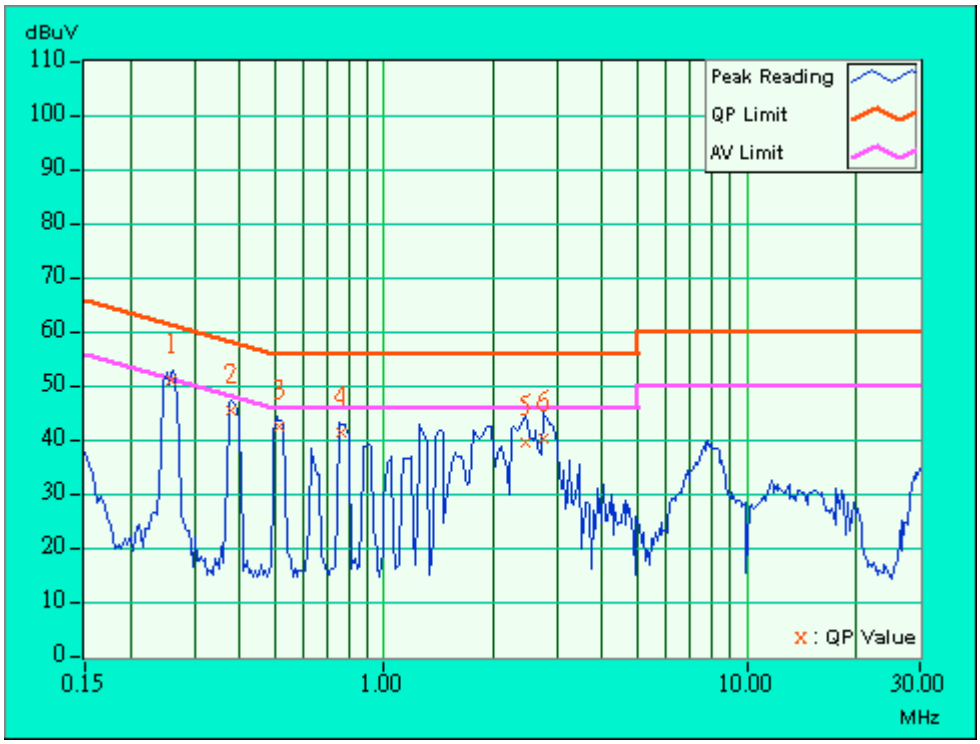
NOTES: (1) "*": Undetectable
(2) Q.P. and AV. are abbreviations of quasi-peak and average.
(3) "-": The Quasi-peak reading value also meets an average limit, thus measurement with the average detector is unnecessary.
(4) The emission levels of other frequencies were very low against the limit.
(5) Correction Factor = Insertion loss + Cable loss
(6) Margin value = Emission level - Limit value



EUT	hp procurve wireless AP 420 na	**MODEL**	J8130A
MODE	With POE, Channel 11	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Line (L)
ENVIRONMENTAL CONDITIONS	24 deg. C, 58%RH, 979 hPa	**TESTED BY**	Eric Lee

No	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	**0.258**	**0.20**	**50.66**	**-**	**50.86**	**-**	**61.51**	**51.51**	**-10.65**	**-**
2	0.380	0.20	45.18	-	45.38	-	58.27	48.27	-12.89	-
3	0.512	0.22	42.07	-	42.29	-	56.00	46.00	-13.71	-
4	0.761	0.26	41.29	-	41.55	-	56.00	46.00	-14.45	-
5	2.451	0.32	39.17	-	39.49	-	56.00	46.00	-16.51	-
6	2.755	0.34	39.96	-	40.30	-	56.00	46.00	-15.70	-

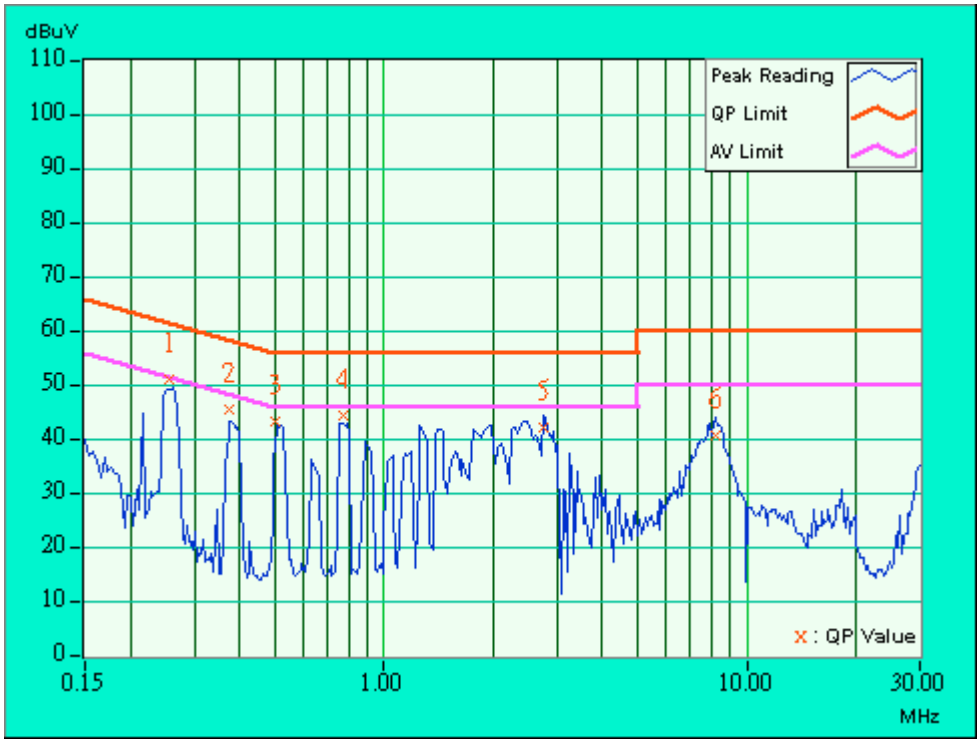
NOTES: (1) "*": Undetectable
(2) Q.P. and AV. are abbreviations of quasi-peak and average.
(3) "-": The Quasi-peak reading value also meets an average limit, thus measurement with the average detector is unnecessary.
(4) The emission levels of other frequencies were very low against the limit.
(5) Correction Factor = Insertion loss + Cable loss
(6) Margin value = Emission level - Limit value



EUT	hp procurve wireless AP 420 na	**MODEL**	J8130A
MODE	With POE, Channel 11	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Neutral (N)
ENVIRONMENTAL CONDITIONS	24 deg. C, 58%RH, 979 hPa	**TESTED BY**	Eric Lee

No	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.256	0.20	50.32	-	50.52	-	61.56	51.56	-11.04	-
2	0.377	0.20	45.03	-	45.23	-	58.35	48.35	-13.12	-
3	0.500	0.22	42.73	-	42.95	-	56.00	46.00	-13.05	-
4	0.771	0.26	43.78	-	44.04	-	56.00	46.00	-11.96	-
5	2.763	0.34	41.64	-	41.98	-	56.00	46.00	-14.02	-
6	8.215	0.61	40.03	-	40.64	-	60.00	50.00	-19.36	-

NOTES: (1) "*": Undetectable
(2) Q.P. and AV. are abbreviations of quasi-peak and average.
(3) "-": The Quasi-peak reading value also meets an average limit, thus measurement with the average detector is unnecessary.
(4) The emission levels of other frequencies were very low against the limit.
(5) Correction Factor = Insertion loss + Cable loss
(6) Margin value = Emission level - Limit value



4.2 RADIATED EMISSION MEASUREMENT

4.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

Field strength limits are at the distance of 3 meters, emissions radiated outside of the specified bands, shall be according to the general radiated limits in 15.209 as following:

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

NOTE:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. 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 20dB under any condition of modulation.

4.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
HP Spectrum Analyzer	8594ER	3829U04676	Aug. 30, 2004
ADVANTEST Spectrum Analyzer	R3271A	85060311	Jun. 16, 2004
CHASE RF Pre_Amplifier	CPA9232	1057	May. 10, 2004
HP Pre_Amplifier	8449B	3008A01922	Oct. 13, 2004
ROHDE & SCHWARZ Test Receiver	ESVS 10	849231 /019	Sep. 30, 2004
CHASE Broadband Antenna	CBL6111c	2730	Jul 30, 2004
Schwarzbeck Horn_Antenna	3115	5619	Jul. 17, 2004
Schwarzbeck Horn_Antenna	BBHA 9170	BBHA9170192	Feb. 16, 2005
SCHWARZBECK Tunable Dipole Antenna	UHAP	897	Mar. 07, 2005
SCHWARZBECK Tunable Dipole Antenna	VHAP	880	Mar. 07, 2005
RF Switches (ARNITSU)	CS-201	1565157	Dec. 01, 2004
RF CABLE (Chaintek) 1GHz-20GHz	SF102	22054-2	Feb. 10. 2005
RF Cable(RICHTEC)	9913-30M	STCCAB-30M-1GHz-021	Dec. 01, 2004
Software	AS60P8	NA	NA
CHANCE MOST Antenna Tower	AT-100	0203	NA
CHANCE MOST Turn Table	TT-100	0203	NA

Note: 1. The calibration interval of the above test instruments is 12 months (36 months for Tunable Dipole Antenna)and the calibrations are traceable to NML/ROC and NIST/USA.
2. * = These equipment are used for the final measurement.
3. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
4. The test was performed in ADT Open Site No. C.
5. The FCC Site Registration No. is 656396.
6. The VCCI Site Registration No. is R-1626.
7. The CANADA Site Registration No. is IC 4824-3.

4.2.3 TEST PROCEDURES

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 10 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

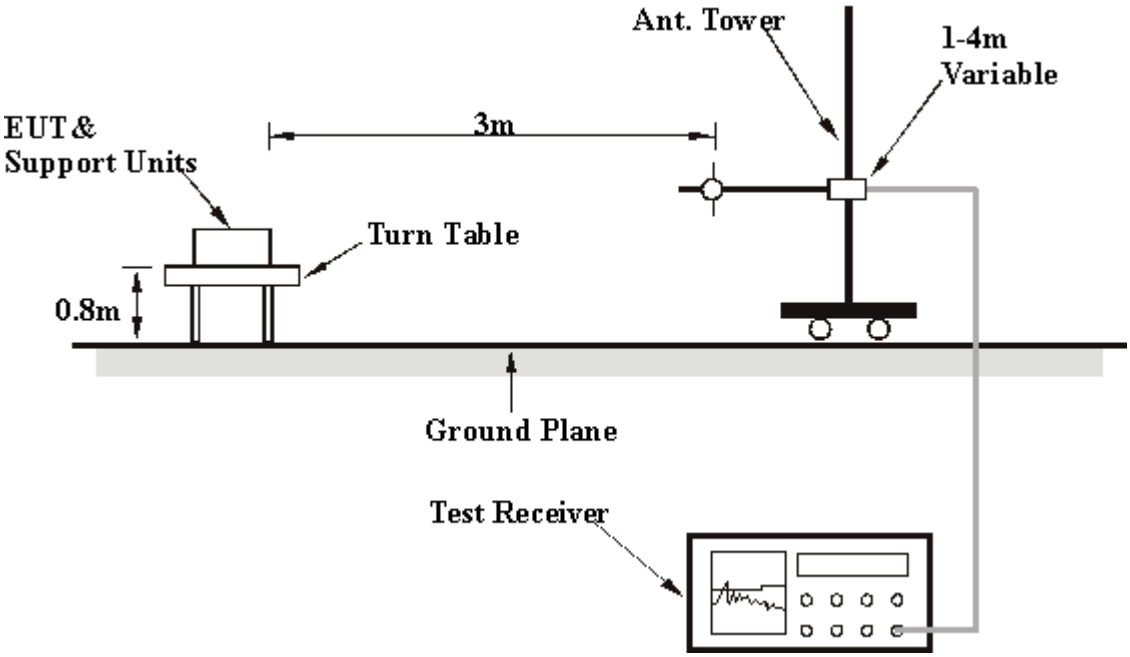
e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. If the emission level of the EUT in peak mode was 10 dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10 dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 300 Hz for Average detection (AV) at frequency above 1GHz.

4.2.4 TEST SETUP



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

4.2.5 EUT OPERATING CONDITIONS

Same as 4.1.5.

4.2.6 TEST RESULTS

EUT	hp procurve wireless AP 420 na	**MODEL**	J8130A
MODE	Antenna 1 - POE	**FREQUENCY RANGE**	30-1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Quasi-Peak
ENVIRONMENTAL CONDITIONS	23 deg. C, 60 % RH, 979 hPa	**TESTED BY**	Eric Lee

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	125.01	24.10 QP	43.50	-19.40	1.54 H	20	12.00	12.10
2	175.02	25.70 QP	43.50	-17.80	1.40 H	247	12.50	13.20
3	200.00	24.70 QP	43.50	-18.80	1.10 H	210	13.50	11.20
4	250.00	25.50 QP	46.00	-20.50	1.36 H	59	12.30	13.20
5	375.00	27.60 QP	46.00	-18.40	1.65 H	98	10.20	17.40
6	500.01	30.30 QP	46.00	-15.70	1.00 H	330	9.30	21.00
7	624.99	32.70 QP	46.00	-13.30	1.57 H	97	9.20	23.50

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	125.03	34.60 QP	43.50	-8.90	1.00 V	24	22.40	12.20
2	150.03	27.80 QP	43.50	-15.70	1.01 V	50	14.10	13.70
3	175.01	31.80 QP	43.50	-11.70	1.50 V	89	18.60	13.20
4	250.02	28.20 QP	46.00	-17.80	1.00 V	356	15.00	13.20
5	300.10	25.60 QP	46.00	-20.40	1.65 V	36	10.30	15.30
6	375.04	31.40 QP	46.00	-14.60	1.10 V	92	14.00	17.40
7	499.99	33.00 QP	46.00	-13.00	1.09 V	41	12.00	20.90
8	625.03	31.00 QP	46.00	-15.00	1.65 V	326	7.50	23.50
9	750.03	33.30 QP	46.00	-12.70	1.04 V	24	8.00	25.30

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.

EUT	hp procurve wireless AP 420 na	**MODEL**	J8130A
MODE	Antenna 2 - POE	**FREQUENCY RANGE**	30-1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Quasi-Peak
ENVIRONMENTAL CONDITIONS	23 deg. C, 60 % RH, 979 hPa	**TESTED BY**	Eric Lee

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	125.01	23.30 QP	43.50	-20.20	1.00 H	20	11.20	12.10
2	175.00	25.50 QP	43.50	-18.00	1.08 H	214	12.30	13.20
3	200.03	24.40 QP	43.50	-19.10	1.60 H	326	13.20	11.20
4	250.00	24.30 QP	46.00	-21.70	1.40 H	23	11.10	13.20
5	375.00	27.50 QP	46.00	-18.50	1.25 H	320	10.10	17.40
6	500.00	29.90 QP	46.00	-16.10	1.83 H	9	9.00	20.90
7	625.01	33.60 QP	46.00	-12.40	1.58 H	78	10.10	23.50

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	125.01	34.40 QP	43.50	-9.10	1.00 V	21	22.30	12.10
2	149.98	27.30 QP	43.50	-16.20	1.00 V	333	13.60	13.70
3	175.00	32.10 QP	43.50	-11.40	1.50 V	241	18.90	13.20
4	250.01	26.70 QP	46.00	-19.30	1.45 V	245	13.50	13.20
5	300.01	25.50 QP	46.00	-20.50	1.54 V	222	10.20	15.30
6	375.00	30.60 QP	46.00	-15.40	1.58 V	7	13.20	17.40
7	500.00	32.50 QP	46.00	-13.50	1.47 V	8	11.50	20.90
8	625.00	31.00 QP	46.00	-15.00	1.43 V	325	7.50	23.50
9	749.98	33.30 QP	46.00	-12.70	1.54 V	241	8.00	25.30

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.

EUT	hp procurve wireless AP 420 na	**MODEL**	J8130A
MODE	Antenna 3 - POE	**FREQUENCY RANGE**	30-1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Quasi-Peak
ENVIRONMENTAL CONDITIONS	23 deg. C, 60 % RH, 979 hPa	**TESTED BY**	Eric Lee

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	125.00	24.10 QP	43.50	-19.40	1.02 H	45	12.00	12.10
2	174.98	25.30 QP	43.50	-18.20	1.00 H	20	12.10	13.20
3	200.01	24.20 QP	43.50	-19.30	1.00 H	280	13.00	11.20
4	250.00	25.10 QP	46.00	-20.90	1.50 H	5	11.90	13.20
5	374.99	27.40 QP	46.00	-18.60	1.02 H	41	10.00	17.40
6	500.00	30.00 QP	46.00	-16.00	1.32 H	65	9.10	20.90
7	625.00	33.20 QP	46.00	-12.80	1.65 H	326	9.70	23.50

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	125.02	34.30 QP	43.50	-9.20	1.57 V	82	22.10	12.20
2	150.00	26.90 QP	43.50	-16.60	2.00 V	124	13.20	13.70
3	175.01	31.10 QP	43.50	-12.40	1.65 V	240	17.90	13.20
4	250.01	27.40 QP	46.00	-18.60	1.54 V	249	14.20	13.20
5	300.02	25.50 QP	46.00	-20.50	1.00 V	243	10.20	15.30
6	374.98	30.90 QP	46.00	-15.10	1.63 V	3	13.50	17.40
7	500.00	32.80 QP	46.00	-13.20	1.50 V	2	11.80	20.90
8	624.00	31.40 QP	46.00	-14.60	1.79 V	9	8.00	23.40
9	750.01	33.30 QP	46.00	-12.70	1.11 V	4	8.00	25.30

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.

EUT	hp procurve wireless AP 420 na	**MODEL**	J8130A
MODE	Antenna 4 - POE	**FREQUENCY RANGE**	30-1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Quasi-Peak
ENVIRONMENTAL CONDITIONS	23 deg. C, 60 % RH, 979 hPa	**TESTED BY**	Eric Lee

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	125.03	23.70 QP	43.50	-19.80	1.00 H	254	11.50	12.20
2	175.01	25.90 QP	43.50	-17.60	1.75 H	64	12.70	13.20
3	200.00	24.70 QP	43.50	-18.80	1.50 H	258	13.50	11.20
4	250.11	24.60 QP	46.00	-21.40	1.54 H	246	11.40	13.20
5	375.00	27.50 QP	46.00	-18.50	1.02 H	89	10.10	17.40
6	500.03	30.10 QP	46.00	-15.90	1.86 H	9	9.10	21.00
7	625.00	33.50 QP	46.00	-12.50	1.08 H	256	10.00	23.50

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	124.99	34.20 QP	43.50	-9.30	1.00 V	240	22.10	12.10
2	150.00	27.80 QP	43.50	-15.70	1.56 V	326	14.10	13.70
3	175.03	31.60 QP	43.50	-11.90	1.57 V	98	18.40	13.20
4	250.00	26.20 QP	46.00	-19.80	2.04 V	154	13.00	13.20
5	299.99	26.20 QP	46.00	-19.80	1.40 V	254	11.00	15.20
6	375.00	30.20 QP	46.00	-15.80	1.58 V	3	12.80	17.40
7	500.00	32.90 QP	46.00	-13.10	1.20 V	356	11.90	20.90
8	625.00	31.40 QP	46.00	-14.60	1.02 V	345	7.90	23.50
9	750.00	33.30 QP	46.00	-12.70	1.56 V	36	8.00	25.30

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.

4.2.7 TEST RESULTS (ANTENNA 1 – DSSS)

EUT	hp procurve wireless AP 420 na	**MODEL**	J8130A
MODE	Channel 1	**FREQUENCY RANGE**	1000 ~ 25000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak (PK) Average(AV)
ENVIRONMENTAL CONDITIONS	25 deg. C, 65%RH, 979 hPa	**TESTED BY**	Wen Yu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	46.10 PK	74.00	-27.90	1.77 H	85	15.70	30.30
2	2390.00	41.40 PK	74.00	-32.60	1.18 H	22	11.00	30.40
3	*2412.00	93.50 PK			1.18 H	22	63.00	30.50
3	*2412.00	86.40 AV			1.18 H	22	55.90	30.50
4	2496.00	44.50 PK	74.00	-29.50	1.60 H	326	13.70	30.80
5	4824.00	39.30 PK	74.00	-34.70	1.15 H	24	3.10	36.20
6	7236.00	47.70 PK	74.00	-26.30	1.11 H	45	6.10	41.70
7	9648.00	47.10 PK	74.00	-26.90	1.09 H	163	2.20	44.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	57.10 PK	74.00	-16.90	1.09 V	204	26.80	30.30
1	2368.00	49.50 AV	54.00	-4.50	1.09 V	204	19.20	30.30
2	2390.00	58.20 PK	74.00	-15.80	1.23 V	108	27.80	30.40
2	2390.00	51.20 AV	54.00	-2.80	1.23 V	108	20.80	30.40
3	*2412.00	110.20 PK			1.23 V	108	79.70	30.50
3	*2412.00	103.20 AV			1.23 V	108	72.70	30.50
4	2496.00	54.00 PK	74.00	-20.00	1.18 V	28	23.20	30.80
4	2496.00	46.40 AV	54.00	-7.60	1.18 V	28	15.60	30.80
5	4824.00	42.70 PK	74.00	-31.30	1.54 V	241	6.50	36.20
6	7236.00	46.40 PK	74.00	-27.60	1.47 V	85	4.70	41.70
7	9648.00	48.30 PK	74.00	-25.70	1.11 V	245	3.40	44.90

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	hp procurve wireless AP 420 na	**MODEL**	J8130A
MODE	Channel 6	**FREQUENCY RANGE**	1000 ~ 25000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25 deg. C, 65%RH, 979 hPa	**TESTED BY**	Wen Yu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	47.20 PK	74.00	-26.80	1.87 H	9	17.50	29.70
2	*2437.00	100.30 PK			1.50 H	25	70.30	30.00
2	*2437.00	91.90 AV			1.50 H	25	61.90	30.00
3	2496.00	50.20 PK	74.00	-23.80	1.06 H	35	20.00	30.20
4	4874.00	41.40 PK	74.00	-32.60	1.00 H	360	4.90	36.50
5	7311.00	47.40 PK	74.00	-26.60	1.60 H	3	5.60	41.80
6	9748.00	47.10 PK	74.00	-26.90	1.70 H	245	2.50	44.60

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	59.50 PK	74.00	-14.50	1.11 V	130	29.80	29.70
1	2368.00	51.50 AV	54.00	-2.50	1.11 V	130	21.80	29.70
2	*2437.00	115.00 PK			1.07 V	130	85.00	30.00
2	*2437.00	108.30 AV			1.07 V	130	78.30	30.00
3	2496.00	54.50 PK	74.00	-19.50	1.06 V	22	24.30	30.20
3	2496.00	45.90 AV	54.00	-8.10	1.06 V	22	15.70	30.20
4	4874.00	45.90 PK	74.00	-28.10	1.54 V	265	9.40	36.50
5	7311.00	50.00 PK	74.00	-24.00	1.35 V	64	8.20	41.80
6	9748.00	49.20 PK	74.00	-24.80	1.07 V	112	4.60	44.60

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. “ * “ : Fundamental frequency

EUT	hp procurve wireless AP 420 na	**MODEL**	J8130A
MODE	Channel 11	**FREQUENCY RANGE**	1000 ~ 25000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25 deg. C, 65%RH, 979 hPa	**TESTED BY**	Wen Yu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	45.10 PK	74.00	-28.90	1.54 H	215	14.70	30.30
2	*2462.00	96.60 PK			1.23 H	24	65.80	30.80
2	*2462.00	88.30 AV			1.23 H	24	57.50	30.80
3	2483.50	42.70 PK	74.00	-31.30	1.23 H	24	11.70	31.00
4	2496.00	47.30 PK	74.00	-26.70	1.07 H	120	16.60	30.80
5	4924.00	39.60 PK	74.00	-34.40	1.70 H	145	2.90	36.70
6	7386.00	46.80 PK	74.00	-27.20	3.26 H	145	4.90	41.80
7	9848.00	47.80 PK	74.00	-26.20	1.10 H	25	3.40	44.40

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	53.00 PK	74.00	-21.00	1.31 V	7	22.60	30.30
1	2368.00	45.90 AV	54.00	-8.10	1.31 V	7	15.50	30.30
2	*2462.00	111.90 PK			1.25 V	1	81.10	30.80
2	*2462.00	105.40 AV			1.25 V	1	74.60	30.80
3	2483.50	58.00 PK	74.00	-16.00	1.25 V	1	27.00	31.00
3	2483.50	51.50 AV	54.00	-2.50	1.25 V	1	20.50	31.00
4	2496.00	58.20 PK	74.00	-15.80	1.28 V	108	27.40	30.80
4	2496.00	50.30 AV	54.00	-3.70	1.28 V	108	19.60	30.80
5	4924.00	41.70 PK	74.00	-32.30	1.02 V	360	5.00	36.70
6	7386.00	47.60 PK	74.00	-26.40	1.60 V	309	5.80	41.80
7	9848.00	48.40 PK	74.00	-25.60	1.08 V	201	4.00	44.40

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. “ * “ : Fundamental frequency

4.2.8 TEST RESULTS (ANTENNA 2 – DSSS)

EUT	hp procurve wireless AP 420 na	**MODEL**	J8130A
MODE	Channel 1	**FREQUENCY RANGE**	1000 ~ 25000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak (PK) Average(AV)
ENVIRONMENTAL CONDITIONS	25 deg. C, 65%RH, 979 hPa	**TESTED BY**	Wen Yu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	57.70 PK	74.00	-16.30	1.30 H	259	27.30	30.30
1	2368.00	49.80 AV	54.00	-4.20	1.30 H	259	19.50	30.30
2	2390.00	59.20 PK	74.00	-14.80	1.21 H	320	28.80	30.40
2	2390.00	52.50 AV	54.00	-1.50	1.21 H	320	22.00	30.40
3	*2412.00	111.20 PK			1.21 H	320	80.70	30.50
3	*2412.00	104.40 AV			1.21 H	320	73.80	30.50
4	2496.00	53.90 PK	74.00	-20.10	1.50 H	264	23.10	30.80
4	2496.00	44.70 AV	54.00	-9.30	1.50 H	264	13.90	30.80
5	4824.00	44.30 PK	74.00	-29.70	1.25 H	16	8.10	36.20
6	7236.00	48.40 PK	74.00	-25.60	1.10 H	310	6.70	41.70
7	9648.00	49.80 PK	74.00	-24.20	1.00 H	334	4.90	44.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	48.30 PK	74.00	-25.70	1.86 V	71	18.00	30.30
2	2390.00	49.70 PK	74.00	-24.30	1.05 V	360	19.30	30.40
3	2412.00	102.00 PK			1.00 V	355	71.10	30.80
3	2412.00	95.50 AV			1.00 V	355	64.70	30.80
4	2496.00	47.80 PK	74.00	-26.20	1.51 V	210	17.10	30.80
5	4824.00	45.70 PK	74.00	-28.30	1.00 V	6	9.50	36.20
6	7236.00	50.50 PK	74.00	-23.50	1.00 V	360	8.80	41.70
7	9648.00	49.00 PK	74.00	-25.00	1.00 V	0	4.10	44.90

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	hp procurve wireless AP 420 na	**MODEL**	J8130A
MODE	Channel 6	**FREQUENCY RANGE**	1000 ~ 25000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25 deg. C, 65%RH, 979 hPa	**TESTED BY**	Wen Yu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	60.60 PK	74.00	-13.40	1.79 H	64	30.30	30.30
1	2368.00	51.40 AV	54.00	-2.60	1.79 H	64	21.00	30.30
2	*2437.00	114.70 PK			1.20 H	21	84.00	30.70
2	*2437.00	108.30 AV			1.20 H	21	77.70	30.70
3	2496.00	59.20 PK	74.00	-14.80	1.40 H	201	28.40	30.80
3	2496.00	51.60 AV	54.00	-2.40	1.40 H	201	20.80	30.80
4	4874.00	46.20 PK	74.00	-27.80	1.58 H	250	9.80	36.50
5	7311.00	49.40 PK	74.00	-24.60	1.11 H	325	7.70	41.80
6	9748.00	49.70 PK	74.00	-24.30	1.60 H	354	5.00	44.60

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	51.00 PK	74.00	-23.00	1.41 V	111	20.70	30.30
1	2368.00	42.50 AV	54.00	-11.50	1.41 V	111	12.20	30.30
2	*2437.00	108.60 PK			1.69 V	32	77.90	30.70
2	*2437.00	101.90 AV			1.69 V	32	71.20	30.70
3	2496.00	51.40 PK	74.00	-22.60	1.65 V	326	20.70	30.80
3	2496.00	43.30 AV	54.00	-10.70	1.65 V	326	12.50	30.80
4	4874.00	41.50 PK	74.00	-32.50	1.01 V	245	5.00	36.50
5	7311.00	46.40 PK	74.00	-27.60	1.68 V	93	4.70	41.80
6	9748.00	47.10 PK	74.00	-26.90	1.52 V	222	2.40	44.60

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. “ * “ : Fundamental frequency

EUT	hp procurve wireless AP 420 na	**MODEL**	J8130A
MODE	Channel 11	**FREQUENCY RANGE**	1000 ~ 25000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25 deg. C, 65%RH, 979 hPa	**TESTED BY**	Wen Yu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	51.50 PK	74.00	-22.50	1.37 H	253	21.20	30.30
1	2368.00	45.10 AV	54.00	-8.90	1.37 H	253	14.70	30.30
2	*2462.00	110.60 PK			1.20 H	47	79.70	30.80
2	*2462.00	103.80 AV			1.20 H	47	73.00	30.80
3	2483.50	58.60 PK	74.00	-15.40	1.20 H	47	27.70	31.00
3	2483.50	51.90 AV	54.00	-2.10	1.20 H	47	20.90	31.00
4	2496.00	55.40 PK	74.00	-18.60	1.40 H	40	24.70	30.80
4	2496.00	45.40 AV	54.00	-8.60	1.40 H	40	14.60	30.80
5	4924.00	43.90 PK	74.00	-30.10	1.09 H	213	7.30	36.70
6	7386.00	49.00 PK	74.00	-25.00	1.12 H	256	7.20	41.80
7	9848.00	50.40 PK	74.00	-23.60	1.07 H	238	6.10	44.40

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	46.80 PK	74.00	-27.20	1.10 V	189	16.50	30.30
2	*2462.00	106.80 PK			1.10 V	8	76.00	30.80
2	*2462.00	99.80 AV			1.10 V	8	68.90	30.80
3	2483.50	54.90 PK	74.00	-19.10	1.12 V	25	23.90	31.00
3	2483.50	47.80 AV	54.00	-6.20	1.12 V	25	16.90	31.00
4	2496.00	55.50 PK	74.00	-18.50	1.09 V	353	24.80	30.80
4	2496.00	46.40 AV	54.00	-7.60	1.09 V	353	15.60	30.80
5	4924.00	44.30 PK	74.00	-29.70	1.16 V	139	7.60	36.70
6	7386.00	48.70 PK	74.00	-25.30	1.08 V	314	6.80	41.80
7	9848.00	51.00 PK	74.00	-23.00	1.12 V	134	6.60	44.40
7	9848.00	39.90 AV	54.00	-14.10	1.12 V	134	-4.40	44.40

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

4.2.9 TEST RESULTS (ANTENNA 3 – DSSS)

EUT	hp procurve wireless AP 420 na	**MODEL**	J8130A
MODE	Channel 1	**FREQUENCY RANGE**	1000 ~ 25000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak (PK) Average(AV)
ENVIRONMENTAL CONDITIONS	25 deg. C, 65%RH, 979 hPa	**TESTED BY**	Wen Yu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	47.80 PK	74.00	-26.20	1.50 H	21	17.50	30.30
2	2390.00	51.10 PK	74.00	-22.90	1.20 H	337	20.70	30.40
2	2390.00	43.70 AV	54.00	-10.30	1.20 H	337	13.30	30.40
3	*2412.00	105.40 PK			1.20 H	337	74.90	30.50
3	*2412.00	98.00 AV			1.20 H	337	67.50	30.50
4	2496.00	47.30 PK	74.00	-26.70	1.65 H	354	16.60	30.80
5	4824.00	40.20 PK	74.00	-33.80	1.58 H	96	4.00	36.20
6	7236.00	44.80 PK	74.00	-29.20	1.60 H	308	3.10	41.70
7	9648.00	48.70 PK	74.00	-25.30	1.57 H	90	3.80	44.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	58.20 PK	74.00	-15.80	1.37 V	12	27.90	30.30
1	2368.00	49.30 AV	54.00	-4.70	1.37 V	12	19.00	30.30
2	2390.00	58.60 PK	74.00	-15.40	1.36 V	7	28.20	30.40
2	2390.00	51.60 AV	54.00	-2.40	1.36 V	7	21.20	30.40
3	*2412.00	112.60 PK			1.36 V	7	82.10	30.50
3	*2412.00	105.90 AV			1.36 V	7	75.40	30.50
4	2496.00	57.60 PK	74.00	-16.40	1.29 V	348	26.90	30.80
4	2496.00	50.40 AV	54.00	-3.60	1.29 V	348	19.60	30.80
5	4824.00	40.50 PK	74.00	-33.50	1.54 V	78	4.20	36.20
6	7236.00	44.20 PK	74.00	-29.80	1.40 V	207	2.60	41.70
7	9648.00	46.80 PK	74.00	-27.20	1.54 V	246	1.90	44.90

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	hp procurve wireless AP 420 na	**MODEL**	J8130A
MODE	Channel 6	**FREQUENCY RANGE**	1000 ~ 25000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25 deg. C, 65%RH, 979 hPa	**TESTED BY**	Wen Yu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	45.40 PK	74.00	-28.60	1.24 H	314	15.70	29.70
2	*2437.00	102.70 PK			1.28 H	39	72.70	30.00
2	*2437.00	96.20 AV			1.28 H	39	66.20	30.00
3	2496.00	47.80 PK	74.00	-26.20	1.25 H	40	17.60	30.20
4	4874.00	43.30 PK	74.00	-30.70	1.20 H	248	6.80	36.50
5	7311.00	49.10 PK	74.00	-24.90	1.23 H	256	7.40	41.80
6	9748.00	50.60 PK	74.00	-23.40	1.19 H	318	5.90	44.60

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	60.60 PK	74.00	-13.40	1.33 V	356	30.90	29.70
1	2368.00	52.80 AV	54.00	-1.20	1.33 V	356	23.10	29.70
2	*2437.00	115.10 PK			1.33 V	356	85.10	30.00
2	*2437.00	108.20 AV			1.33 V	356	78.20	30.00
3	2496.00	56.10 PK	74.00	-17.90	1.28 V	21	25.90	30.20
3	2496.00	47.00 AV	54.00	-7.00	1.28 V	21	16.80	30.20
4	4874.00	42.80 PK	74.00	-31.20	1.08 V	315	6.30	36.50
5	7311.00	48.60 PK	74.00	-25.40	1.05 V	293	6.80	41.80
6	9748.00	50.40 PK	74.00	-23.60	1.07 V	319	5.80	44.60

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. “ * “ : Fundamental frequency

EUT	hp procurve wireless AP 420 na	**MODEL**	J8130A
MODE	Channel 11	**FREQUENCY RANGE**	1000 ~ 25000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25 deg. C, 65%RH, 979 hPa	**TESTED BY**	Wen Yu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	46.10 PK	74.00	-27.90	1.54 H	78	15.70	30.30
2	*2462.00	103.90 PK			1.40 H	333	73.10	30.80
2	*2462.00	96.40 AV			1.40 H	333	65.60	30.80
3	2483.50	50.30 PK	74.00	-23.70	1.40 H	333	19.40	31.00
4	2496.00	46.40 PK	74.00	-27.60	1.89 H	302	15.60	30.80
5	4924.00	39.60 PK	74.00	-34.40	1.53 H	254	2.90	36.70
6	7386.00	44.30 PK	74.00	-29.70	1.02 H	1	2.50	41.80
7	9848.00	46.80 PK	74.00	-27.20	1.12 H	96	2.40	44.40

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	57.80 PK	74.00	-16.20	1.35 V	12	27.50	30.30
1	2368.00	50.40 AV	54.00	-3.60	1.35 V	12	20.10	30.30
2	*2462.00	113.30 PK			1.10 V	356	82.50	30.80
2	*2462.00	106.80 AV			1.10 V	356	76.00	30.80
3	2483.50	59.70 PK	74.00	-14.30	1.10 V	356	28.70	31.00
3	2483.50	53.20 AV	54.00	-0.80	1.10 V	356	22.20	31.00
4	2496.00	57.40 PK	74.00	-16.60	1.54 V	343	26.60	30.80
4	2496.00	49.10 AV	54.00	-4.90	1.54 V	343	18.30	30.80
5	4924.00	42.10 PK	74.00	-31.90	1.42 V	96	5.40	36.70
6	7386.00	45.30 PK	74.00	-28.70	1.02 V	35	3.50	41.80
7	9848.00	46.80 PK	74.00	-27.20	1.11 V	258	2.40	44.40

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. “ * “ : Fundamental frequency

4.2.10 TEST RESULTS (ANTENNA 4 – DSSS)

EUT	hp procurve wireless AP 420 na	**MODEL**	J8130A
MODE	Channel 1	**FREQUENCY RANGE**	1000 ~ 25000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak (PK) Average(AV)
ENVIRONMENTAL CONDITIONS	25 deg. C, 65%RH, 979 hPa	**TESTED BY**	Wen Yu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	49.10 PK	74.00	-24.90	1.08 H	320	18.70	30.30
2	2390.00	49.10 PK	74.00	-24.90	1.30 H	323	18.70	30.40
3	*2412.00	103.40 PK			1.30 H	323	72.90	30.50
3	*2412.00	96.60 AV			1.30 H	323	66.10	30.50
4	2496.00	50.30 PK	74.00	-23.70	1.06 H	55	19.50	30.80
5	4824.00	42.90 PK	74.00	-31.10	1.20 H	57	6.60	36.20
6	7236.00	47.70 PK	74.00	-26.30	1.09 H	311	6.00	41.70
7	9648.00	49.60 PK	74.00	-24.40	1.01 H	236	4.70	44.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	60.70 PK	74.00	-13.30	1.05 V	346	30.40	30.30
1	2368.00	52.80 AV	54.00	-1.20	1.05 V	346	22.50	30.30
2	2390.00	59.60 PK	74.00	-14.40	1.13 V	356	29.20	30.40
2	2390.00	52.60 AV	54.00	-1.40	1.13 V	356	22.20	30.40
3	*2412.00	113.90 PK			1.13 V	356	83.40	30.50
3	*2412.00	106.90 AV			1.13 V	356	76.40	30.50
4	2496.00	59.90 PK	74.00	-14.10	1.00 V	344	29.20	30.80
4	2496.00	51.20 AV	54.00	-2.80	1.00 V	344	20.50	30.80
5	4824.00	42.80 PK	74.00	-31.20	1.15 V	318	6.50	36.20
6	7236.00	47.50 PK	74.00	-26.50	1.07 V	57	5.80	41.70
7	9648.00	49.30 PK	74.00	-24.70	1.19 V	326	4.40	44.90

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	hp procurve wireless AP 420 na	**MODEL**	J8130A
MODE	Channel 6	**FREQUENCY RANGE**	1000 ~ 25000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25 deg. C, 65%RH, 979 hPa	**TESTED BY**	Wen Yu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	48.90 PK	74.00	-25.10	1.05 H	41	19.20	29.70
2	*2437.00	105.10 PK			1.04 H	45	75.10	30.00
2	*2437.00	98.50 AV			1.04 H	45	68.50	30.00
3	2496.00	48.70 PK	74.00	-25.30	1.04 H	63	18.50	30.20
4	4874.00	42.90 PK	74.00	-31.10	1.05 H	312	6.40	36.50
5	7311.00	49.70 PK	74.00	-24.30	1.08 H	352	7.90	41.80
6	9748.00	50.30 PK	74.00	-23.70	1.10 H	298	5.60	44.60

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	61.00 PK	74.00	-13.00	1.14 V	349	31.30	29.70
1	2368.00	52.90 AV	54.00	-1.10	1.14 V	349	23.20	29.70
2	*2437.00	118.60 PK			1.12 V	352	88.60	30.00
2	*2437.00	111.50 AV			1.12 V	352	81.60	30.00
3	2496.00	59.30 PK	74.00	-14.70	1.06 V	353	29.10	30.20
3	2496.00	49.40 AV	54.00	-4.60	1.06 V	353	19.20	30.20
4	4874.00	43.10 PK	74.00	-30.90	1.32 V	356	6.70	36.50
5	7311.00	50.10 PK	74.00	-23.90	1.30 V	319	8.40	41.80
6	9748.00	51.20 PK	74.00	-22.80	1.28 V	257	6.60	44.60
6	9748.00	39.60 AV	54.00	-14.40	1.28 V	257	-5.00	44.60

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	hp procurve wireless AP 420 na	**MODEL**	J8130A
MODE	Channel 11	**FREQUENCY RANGE**	1000 ~ 25000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25 deg. C, 65%RH, 979 hPa	**TESTED BY**	Wen Yu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	46.50 PK	74.00	-27.50	1.34 H	51	16.20	30.30
2	*2462.00	103.60 PK			1.09 H	55	72.80	30.80
2	*2462.00	97.10 AV			1.09 H	55	66.30	30.80
3	2483.50	50.00 PK	74.00	-24.00	1.09 H	5	19.10	31.00
4	2496.00	52.10 PK	74.00	-21.90	1.00 H	329	21.30	30.80
4	2496.00	42.40 AV	54.00	-11.60	1.00 H	329	11.70	30.80
5	4924.00	43.00 PK	74.00	-31.00	1.32 H	317	6.30	36.70
6	7386.00	48.40 PK	74.00	-25.60	1.30 H	298	6.50	41.80
7	9848.00	50.20 PK	74.00	-23.80	1.31 H	329	5.90	44.40

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	57.10 PK	74.00	-16.90	1.05 V	346	26.80	30.30
1	2368.00	51.60 AV	54.00	-2.40	1.05 V	346	21.20	30.30
2	*2462.00	113.10 PK			1.12 V	0	82.30	30.80
2	*2462.00	106.80 AV			1.12 V	0	76.00	30.80
3	2483.50	59.60 PK	74.00	-14.40	1.12 V	0	28.60	31.00
3	**2483.50**	**53.30 AV**	**54.00**	**-0.70**	**1.12 V**	**0**	**22.30**	**31.00**
4	2496.00	60.70 PK	74.00	-13.30	1.00 V	9	29.90	30.80
4	2496.00	51.30 AV	54.00	-2.70	1.00 V	9	20.50	30.80
5	4924.00	43.30 PK	74.00	-30.70	1.35 V	322	6.70	36.70
6	7386.00	48.90 PK	74.00	-25.10	1.25 V	138	7.00	41.80
7	9848.00	50.00 PK	74.00	-24.00	1.22 V	305	5.60	44.40

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

4.2.11 TEST RESULTS (ANTENNA 1 – OFDM)

EUT	hp procurve wireless AP 420 na	**MODEL**	J8130A
MODE	Channel 1	**FREQUENCY RANGE**	1000 ~ 25000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak (PK) Average(AV)
ENVIRONMENTAL CONDITIONS	25 deg. C, 65%RH, 979 hPa	**TESTED BY**	Wen Yu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	45.00 PK	74.00	-29.00	1.45 H	42	14.60	30.30
2	2390.00	46.70 PK	74.00	-27.30	1.00 H	129	16.30	30.40
3	*2412.00	93.50 PK			1.00 H	129	63.00	30.50
3	*2412.00	85.00 AV			1.00 H	129	54.50	30.50
4	2496.00	46.30 PK	74.00	-27.70	1.02 H	97	15.60	30.80
5	4824.00	40.80 PK	74.00	-33.20	1.50 H	24	4.60	36.20
6	7236.00	46.50 PK	74.00	-27.50	1.58 H	98	4.90	41.70
7	9648.00	47.10 PK	74.00	-26.90	1.11 H	98	2.20	44.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	55.10 PK	74.00	-18.90	1.15 V	126	24.80	30.30
1	2368.00	47.90 AV	54.00	-6.10	1.15 V	126	17.50	30.30
2	2390.00	61.20 PK	74.00	-12.80	1.06 V	10	30.80	30.40
2	2390.00	53.20 AV	54.00	-0.80	1.06 V	10	22.80	30.40
3	*2412.00	107.20 PK			1.06 V	10	76.70	30.50
3	*2412.00	99.30 AV			1.06 V	10	68.80	30.50
4	2496.00	57.90 PK	74.00	-16.10	1.15 V	28	27.10	30.80
4	2496.00	49.40 AV	54.00	-4.60	1.15 V	28	18.70	30.80
5	4824.00	41.70 PK	74.00	-32.30	1.54 V	254	5.50	36.20
6	7236.00	45.20 PK	74.00	-28.80	1.63 V	26	3.60	41.70
7	9648.00	46.70 PK	74.00	-27.30	1.40 V	222	1.80	44.90

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	hp procurve wireless AP 420 na	**MODEL**	J8130A
MODE	Channel 6	**FREQUENCY RANGE**	1000 ~ 25000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25 deg. C, 65%RH, 979 hPa	**TESTED BY**	Wen Yu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	45.90 PK	74.00	-28.10	1.08 H	222	16.20	29.70
2	*2437.00	98.60 PK			1.24 H	254	68.60	30.00
2	*2437.00	90.90 AV			1.24 H	254	60.90	30.00
3	2496.00	51.40 PK	74.00	-22.60	1.11 H	24	21.20	30.20
3	2496.00	42.80 AV	54.00	-11.20	1.11 H	24	12.60	30.20
4	4874.00	40.60 PK	74.00	-33.40	1.54 H	87	4.10	36.50
5	7311.00	47.40 PK	74.00	-26.60	1.54 H	65	5.60	41.80
6	9748.00	47.00 PK	74.00	-27.00	1.80 H	254	2.40	44.60

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	58.90 PK	74.00	-15.10	1.09 V	129	29.20	29.70
1	2368.00	50.30 AV	54.00	-3.70	1.09 V	129	20.60	29.70
2	*2437.00	112.90 PK			1.06 V	134	82.90	30.00
2	*2437.00	104.50 AV			1.06 V	134	74.50	30.00
3	2496.00	55.50 PK	74.00	-18.50	1.10 V	23	25.30	30.20
3	2496.00	46.00 AV	54.00	-8.00	1.10 V	23	15.80	30.20
4	4874.00	45.60 PK	74.00	-28.40	1.54 V	241	9.10	36.50
5	7311.00	49.70 PK	74.00	-24.30	1.54 V	74	7.90	41.80
6	9748.00	49.20 PK	74.00	-24.80	1.04 V	9	4.60	44.60

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	hp procurve wireless AP 420 na	**MODEL**	J8130A
MODE	Channel 11	**FREQUENCY RANGE**	1000 ~ 25000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25 deg. C, 65%RH, 979 hPa	**TESTED BY**	Wen Yu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	43.80 PK	74.00	-30.20	1.11 H	45	13.50	30.30
2	*2462.00	92.80 PK			1.52 H	24	62.00	30.80
2	*2462.00	86.00 AV			1.52 H	24	55.20	30.80
3	2483.50	46.10 PK	74.00	-27.90	1.52 H	24	15.10	31.00
4	2496.00	47.10 PK	74.00	-26.90	1.80 H	2	16.30	30.80
5	4924.00	39.20 PK	74.00	-34.80	1.54 H	78	2.60	36.70
6	7386.00	47.90 PK	74.00	-26.10	1.64 H	32	6.10	41.80
7	9848.00	47.70 PK	74.00	-26.30	1.87 H	92	3.30	44.40

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	56.00 PK	74.00	-18.00	1.54 V	245	25.70	30.30
1	2368.00	47.10 AV	54.00	-6.90	1.54 V	245	16.80	30.30
2	*2462.00	107.10 PK			1.00 V	209	76.30	30.80
2	*2462.00	99.30 AV			1.00 V	209	68.50	30.80
3	2483.50	61.30 PK	74.00	-12.70	1.00 V	209	30.30	31.00
3	**2483.50**	**53.30 AV**	**54.00**	**-0.70**	**1.00 V**	**209**	**22.30**	**31.00**
4	2496.00	57.30 PK	74.00	-16.70	1.36 V	52	26.60	30.80
4	2496.00	50.50 AV	54.00	-3.50	1.36 V	52	19.70	30.80
5	4924.00	42.10 PK	74.00	-31.90	1.60 V	258	5.40	36.70
6	7386.00	47.20 PK	74.00	-26.80	1.97 V	64	5.30	41.80
7	9848.00	46.80 PK	74.00	-27.20	1.57 V	93	2.40	44.40

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. “ * “ : Fundamental frequency

4.2.12 TEST RESULTS (ANTENNA 2 – OFDM)

EUT	hp procurve wireless AP 420 na	**MODEL**	J8130A
MODE	Channel 1	**FREQUENCY RANGE**	1000 ~ 25000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak (PK) Average(AV)
ENVIRONMENTAL CONDITIONS	25 deg. C, 65%RH, 979 hPa	**TESTED BY**	Wen Yu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	55.40 PK	74.00	-18.60	1.04 H	300	25.10	30.30
1	2368.00	48.80 AV	54.00	-5.20	1.04 H	300	18.50	30.30
2	2390.00	60.60 PK	74.00	-13.40	1.00 H	312	30.20	30.40
2	2390.00	53.00 AV	54.00	-1.00	1.00 H	312	22.60	30.40
3	*2412.00	104.60 PK			1.00 H	312	74.10	30.50
3	*2412.00	97.00 AV			1.00 H	312	66.50	30.50
4	2496.00	50.60 PK	74.00	-23.40	1.00 H	66	19.80	30.80
5	4824.00	42.90 PK	74.00	-31.10	1.01 H	72	6.70	36.20
6	7236.00	47.90 PK	74.00	-26.10	1.07 H	88	6.20	41.70
7	9648.00	49.50 PK	74.00	-24.50	1.09 H	143	4.60	44.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	47.80 PK	74.00	-26.20	1.08 V	192	17.40	30.30
2	2390.00	54.80 PK	74.00	-19.20	1.17 V	318	24.40	30.40
2	2390.00	46.80 AV	54.00	-7.20	1.17 V	318	16.40	30.40
3	*2412.00	99.40 PK			1.17 V	318	68.90	30.50
3	*2412.00	91.40 AV			1.17 V	318	60.90	30.50
4	2496.00	48.90 PK	74.00	-25.10	1.09 V	6	18.10	30.80
5	4824.00	41.90 PK	74.00	-32.10	1.10 V	313	5.70	36.20
6	7236.00	48.20 PK	74.00	-25.80	1.12 V	136	6.50	41.70
7	9648.00	49.00 PK	74.00	-25.00	1.15 V	30	4.10	44.90

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	hp procurve wireless AP 420 na	**MODEL**	J8130A
MODE	Channel 6	**FREQUENCY RANGE**	1000 ~ 25000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25 deg. C, 65%RH, 979 hPa	**TESTED BY**	Wen Yu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	59.20 PK	74.00	-14.80	1.32 H	65	28.80	30.30
1	2368.00	51.50 AV	54.00	-2.50	1.32 H	65	21.20	30.30
2	*2437.00	108.90 PK			1.20 H	310	78.20	30.70
2	*2437.00	102.70 AV			1.20 H	310	72.00	30.70
3	2496.00	60.20 PK	74.00	-13.80	1.42 H	254	29.40	30.80
3	2496.00	51.90 AV	54.00	-2.10	1.42 H	254	21.10	30.80
4	4874.00	45.90 PK	74.00	-28.10	1.41 H	99	9.50	36.50
5	7311.00	48.00 PK	74.00	-26.00	1.52 H	214	6.20	41.80
6	9748.00	49.20 PK	74.00	-24.80	1.05 H	245	4.50	44.60

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	50.00 PK	74.00	-24.00	1.54 V	222	19.70	30.30
2	*2437.00	64.10 PK			1.02 V	41	33.40	30.70
2	*2437.00	60.30 AV			1.02 V	41	29.60	30.70
3	2496.00	52.00 PK	74.00	-22.00	1.63 V	326	21.20	30.80
3	2496.00	44.40 AV	54.00	-9.60	1.63 V	326	13.60	30.80
4	4874.00	42.30 PK	74.00	-31.70	1.11 V	55	5.90	36.50
5	7311.00	47.40 PK	74.00	-26.60	1.59 V	353	5.70	41.80
6	9748.00	49.70 PK	74.00	-24.30	1.60 V	25	5.00	44.60

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	hp procurve wireless AP 420 na	**MODEL**	J8130A
MODE	Channel 11	**FREQUENCY RANGE**	1000 ~ 25000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25 deg. C, 65%RH, 979 hPa	**TESTED BY**	Wen Yu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	53.30 PK	74.00	-20.70	1.00 H	318	22.90	30.30
1	2368.00	49.00 AV	54.00	-5.00	1.00 H	318	18.70	30.30
2	*2462.00	106.80 PK			1.00 H	52	76.00	30.80
2	*2462.00	98.40 AV			1.00 H	52	67.60	30.80
3	2483.50	61.60 PK	74.00	-12.40	1.00 H	52	30.60	31.00
3	2483.50	53.20 AV	54.00	-0.80	1.00 H	52	22.20	31.00
4	2496.00	55.80 PK	74.00	-18.20	1.00 H	294	25.00	30.80
4	2496.00	45.70 AV	54.00	-8.30	1.00 H	294	14.90	30.80
5	4924.00	43.40 PK	74.00	-30.60	1.20 H	153	6.70	36.70
6	7386.00	48.00 PK	74.00	-26.00	1.18 H	223	6.20	41.80
7	9848.00	49.40 PK	74.00	-24.60	1.15 H	37	5.00	44.40

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	45.50 PK	74.00	-28.50	1.00 V	330	15.10	30.30
2	*2462.00	104.10 PK			1.09 V	9	73.30	30.80
2	*2462.00	96.00 AV			1.09 V	9	65.20	30.80
3	2483.50	58.20 PK	74.00	-15.80	1.09 V	9	27.30	31.00
3	2483.50	50.10 AV	54.00	-3.90	1.09 V	9	19.20	31.00
4	2496.00	53.20 PK	74.00	-20.80	1.07 V	9	22.40	30.80
4	2496.00	42.80 AV	54.00	-11.20	1.07 V	9	12.10	30.80
5	4924.00	42.60 PK	74.00	-31.40	1.05 V	145	5.90	36.70
6	7386.00	48.30 PK	74.00	-25.70	1.07 V	270	6.50	41.80
7	9848.00	49.30 PK	74.00	-24.70	1.03 V	87	5.00	44.40

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

4.2.13 TEST RESULTS (ANTENNA 3 – OFDM)

EUT	hp procurve wireless AP 420 na	**MODEL**	J8130A
MODE	Channel 1	**FREQUENCY RANGE**	1000 ~ 25000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak (PK) Average(AV)
ENVIRONMENTAL CONDITIONS	25 deg. C, 65%RH, 979 hPa	**TESTED BY**	Wen Yu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	47.50 PK	74.00	-26.50	1.66 H	333	17.10	30.30
2	2390.00	51.60 PK	74.00	-22.40	1.21 H	44	21.20	30.40
2	2390.00	43.50 AV	54.00	-10.50	1.21 H	44	13.10	30.40
3	*2412.00	98.10 PK			1.21 H	44	67.60	30.50
3	*2412.00	90.00 AV			1.21 H	44	59.50	30.50
4	2496.00	47.10 PK	74.00	-26.90	1.40 H	214	16.30	30.80
5	4824.00	39.40 PK	74.00	-34.60	1.54 H	246	3.20	36.20
6	7236.00	45.80 PK	74.00	-28.20	1.11 H	240	4.10	41.70
7	9648.00	47.10 PK	74.00	-26.90	1.02 H	357	2.20	44.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	59.90 PK	74.00	-14.10	1.35 V	18	29.60	30.30
1	2368.00	52.80 AV	54.00	-1.20	1.35 V	18	22.50	30.30
2	2390.00	61.30 PK	74.00	-12.70	1.00 V	27	30.90	30.40
2	2390.00	52.70 AV	54.00	-1.30	1.00 V	27	22.30	30.40
3	*2412.00	107.50 PK			1.00 V	27	77.00	30.50
3	*2412.00	98.90 AV			1.00 V	27	68.40	30.50
4	2496.00	57.50 PK	74.00	-16.50	1.28 V	347	26.70	30.80
4	2496.00	51.10 AV	54.00	-2.90	1.28 V	347	20.30	30.80
5	4824.00	41.40 PK	74.00	-32.60	1.54 V	241	5.20	36.20
6	7236.00	45.50 PK	74.00	-28.50	1.11 V	20	3.80	41.70
7	9648.00	47.10 PK	74.00	-26.90	1.68 V	9	2.20	44.90

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	hp procurve wireless AP 420 na	**MODEL**	J8130A
MODE	Channel 6	**FREQUENCY RANGE**	1000 ~ 25000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25 deg. C, 65%RH, 979 hPa	**TESTED BY**	Wen Yu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	46.00 PK	74.00	-28.00	1.02 H	299	16.30	29.70
2	*2437.00	100.70 PK			1.27 H	34	70.70	30.00
2	*2437.00	92.20 AV			1.27 H	34	62.20	30.00
3	2496.00	46.80 PK	74.00	-27.20	1.31 H	288	16.60	30.20
4	4874.00	43.10 PK	74.00	-30.90	1.21 H	352	6.70	36.50
5	7311.00	49.40 PK	74.00	-24.60	1.18 H	198	7.60	41.80
6	9748.00	50.40 PK	74.00	-23.60	1.13 H	326	5.70	44.60

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	61.80 PK	74.00	-12.20	1.12 V	358	32.10	29.70
1	2368.00	53.00 AV	54.00	-1.00	1.12 V	358	23.30	29.70
2	*2437.00	111.00 PK			1.31 V	348	81.00	30.00
2	*2437.00	103.50 AV			1.31 V	348	73.50	30.00
3	2496.00	58.60 PK	74.00	-15.40	1.25 V	0	28.40	30.20
3	2496.00	50.00 AV	54.00	-4.00	1.25 V	0	19.80	30.20
4	4874.00	43.50 PK	74.00	-30.50	1.03 V	256	7.00	36.50
5	7311.00	49.20 PK	74.00	-24.80	1.08 V	269	7.40	41.80
6	9748.00	50.90 PK	74.00	-23.10	1.07 V	315	6.30	44.60

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. “ * “ : Fundamental frequency

EUT	hp procurve wireless AP 420 na	**MODEL**	J8130A
MODE	Channel 11	**FREQUENCY RANGE**	1000 ~ 25000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25 deg. C, 65%RH, 979 hPa	**TESTED BY**	Wen Yu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2462.00	97.90 PK			1.20 H	56	67.10	30.80
1	*2462.00	90.00 AV			1.20 H	56	59.20	30.80
2	2483.50	50.90 PK	74.00	-23.10	1.20 H	56	20.00	31.00
3	2496.00	59.10 PK	74.00	-14.90	1.65 H	326	28.30	30.80
3	2496.00	48.20 AV	54.00	-5.80	1.65 H	326	17.50	30.80
4	4924.00	39.90 PK	74.00	-34.10	1.65 H	249	3.20	36.70
5	7386.00	44.60 PK	74.00	-29.40	1.11 H	47	2.80	41.80
6	9848.00	46.20 PK	74.00	-27.80	1.02 H	47	1.80	44.40

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	58.00 PK	74.00	-16.00	1.35 V	12	27.60	30.30
1	2368.00	53.00 AV	54.00	-1.00	1.35 V	12	22.60	30.30
2	*2462.00	107.30 PK			1.33 V	360	76.50	30.80
2	*2462.00	99.40 AV			1.33 V	360	68.60	30.80
3	2483.50	61.10 PK	74.00	-12.90	1.33 V	360	30.10	31.00
3	2483.50	53.20 AV	54.00	-0.80	1.33 V	360	22.20	31.00
4	2496.00	62.10 PK	74.00	-11.90	1.08 V	359	31.30	30.80
4	2496.00	52.60 AV	54.00	-1.40	1.08 V	359	21.90	30.80
5	4924.00	42.10 PK	74.00	-31.90	1.24 V	56	5.40	36.70
6	7386.00	45.20 PK	74.00	-28.80	1.54 V	78	3.30	41.80
7	9848.00	46.80 PK	74.00	-27.20	1.53 V	69	2.40	44.40

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. “ * “ : Fundamental frequency

4.2.14 TEST RESULTS (ANTENNA 4 – OFDM)

EUT	hp procurve wireless AP 420 na	**MODEL**	J8130A
MODE	Channel 1	**FREQUENCY RANGE**	1000 ~ 25000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak (PK) Average(AV)
ENVIRONMENTAL CONDITIONS	25 deg. C, 65%RH, 979 hPa	**TESTED BY**	Wen Yu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	48.30 PK	74.00	-25.70	1.36 H	49	17.90	30.30
2	2390.00	52.00 PK	74.00	-22.00	1.32 H	333	21.60	30.40
2	2390.00	43.80 AV	54.00	-10.20	1.32 H	333	13.40	30.40
3	*2412.00	98.50 PK			1.32 H	333	68.00	30.50
3	*2412.00	90.30 AV			1.32 H	333	59.80	30.50
4	2496.00	47.80 PK	74.00	-26.20	1.00 H	331	17.00	30.80
5	4824.00	42.40 PK	74.00	-31.60	1.30 H	342	6.20	36.20
6	7236.00	48.50 PK	74.00	-25.50	1.37 H	325	6.80	41.70
7	9648.00	49.90 PK	74.00	-24.10	1.35 H	328	5.00	44.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	60.60 PK	74.00	-13.40	1.05 V	343	30.20	30.30
1	2368.00	52.50 AV	54.00	-1.50	1.05 V	343	22.20	30.30
2	2390.00	61.30 PK	74.00	-12.70	1.15 V	360	30.90	30.40
2	**2390.00**	**53.30 AV**	**54.00**	**-0.70**	**1.15 V**	**360**	**22.90**	**30.40**
3	*2412.00	107.20 PK			1.15 V	360	76.70	30.50
3	*2412.00	99.20 AV			1.15 V	360	68.70	30.50
4	2496.00	58.10 PK	74.00	-15.90	1.23 V	345	27.30	30.80
4	2496.00	50.50 AV	54.00	-3.50	1.23 V	345	19.80	30.80
5	4824.00	42.90 PK	74.00	-31.10	1.30 V	239	6.70	36.20
6	7236.00	47.70 PK	74.00	-26.30	1.34 V	235	6.00	41.70
7	9648.00	49.50 PK	74.00	-24.50	1.39 V	325	4.60	44.90

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

EUT	hp procurve wireless AP 420 na	**MODEL**	J8130A
MODE	Channel 6	**FREQUENCY RANGE**	1000 ~ 25000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25 deg. C, 65%RH, 979 hPa	**TESTED BY**	Wen Yu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	46.50 PK	74.00	-27.50	1.05 H	309	16.80	29.70
2	*2437.00	104.40 PK			1.30 H	58	74.40	30.00
2	*2437.00	95.60 AV			1.30 H	58	65.60	30.00
3	2496.00	47.80 PK	74.00	-26.20	1.32 H	298	17.70	30.20
4	4874.00	42.60 PK	74.00	-31.40	1.25 H	314	6.10	36.50
5	7311.00	48.90 PK	74.00	-25.10	1.36 H	219	7.20	41.80
6	9748.00	51.10 PK	74.00	-22.90	1.22 H	350	6.50	44.60
6	9748.00	39.10 AV	54.00	-14.90	1.22 H	350	-5.60	44.60

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	62.30 PK	74.00	-11.70	1.15 V	350	32.60	29.70
1	2368.00	53.20 AV	54.00	-0.80	1.15 V	350	23.50	29.70
2	*2437.00	115.50 PK			1.12 V	353	85.60	30.00
2	*2437.00	106.60 AV			1.12 V	353	76.60	30.00
3	2496.00	59.70 PK	74.00	-14.30	1.30 V	348	29.50	30.20
3	2496.00	50.20 AV	54.00	-3.80	1.30 V	348	20.00	30.20
4	4874.00	43.40 PK	74.00	-30.60	1.18 V	327	6.90	36.50
5	7311.00	49.30 PK	74.00	-24.70	1.15 V	319	7.60	41.80
6	9748.00	51.80 PK	74.00	-22.20	1.12 V	298	7.10	44.60
6	9748.00	39.60 AV	54.00	-14.40	1.12 V	298	-5.00	44.60

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. “ * “ : Fundamental frequency

EUT	hp procurve wireless AP 420 na	**MODEL**	J8130A
MODE	Channel 11	**FREQUENCY RANGE**	1000 ~ 25000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25 deg. C, 65%RH, 979 hPa	**TESTED BY**	Wen Yu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	46.60 PK	74.00	-27.40	1.35 H	51	16.30	30.30
2	*2462.00	98.60 PK			1.11 H	65	67.80	30.80
2	*2462.00	90.20 AV			1.11 H	65	59.40	30.80
3	2483.50	51.60 PK	74.00	-22.40	1.11 H	65	20.70	31.00
3	2483.50	43.20 AV	54.00	-10.80	1.11 H	65	12.30	31.00
4	2496.00	49.90 PK	74.00	-24.10	1.10 H	60	19.10	30.80
5	4924.00	42.30 PK	74.00	-31.70	1.19 H	238	5.60	36.70
6	7386.00	48.60 PK	74.00	-25.40	1.15 H	318	6.80	41.80
7	9848.00	50.10 PK	74.00	-23.90	1.05 H	339	5.80	44.40

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2368.00	57.10 PK	74.00	-16.90	1.04 V	342	26.80	30.30
1	2368.00	52.90 AV	54.00	-1.10	1.04 V	342	22.50	30.30
2	*2462.00	107.70 PK			1.12 V	0	76.90	30.80
2	*2462.00	99.40 AV			1.12 V	0	68.60	30.80
3	2483.50	61.50 PK	74.00	-12.50	1.12 V	0	30.50	31.00
3	2483.50	53.20 AV	54.00	-0.80	1.12 V	0	22.20	31.00
4	2496.00	59.80 PK	74.00	-14.20	1.00 V	345	29.00	30.80
4	2496.00	50.10 AV	54.00	-3.90	1.00 V	345	19.40	30.80
5	4924.00	43.20 PK	74.00	-30.80	1.12 V	318	6.50	36.70
6	7386.00	48.50 PK	74.00	-25.50	1.14 V	326	6.70	41.80
7	9848.00	50.40 PK	74.00	-23.60	1.07 V	283	6.10	44.40

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB)
2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The limit value is defined as per 15.247
6. " * " : Fundamental frequency

4.3 MAXIMUM PEAK OUTPUT POWER

4.3.1 LIMITS OF MAXIMUM PEAK OUTPUT POWER MEASUREMENT

The Maximum Peak Output Power Measurement is 30dBm.

4.3.2 TEST INSTRUMENTS

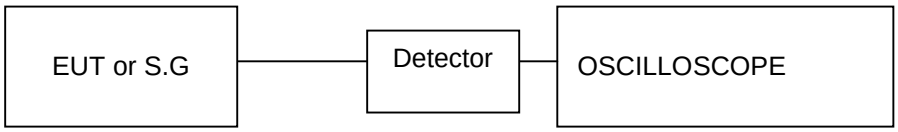
Description & Manufacturer	Model No.	Serial No.	Calibrated Until
R&S SPECTRUM ANALYZER	FSP40	100037	May. 06, 2004
R&S SIGNAL GENERATOR	SMP04	100011	May 28, 2004
TEKTRONIX OSCILLOSCOPE	TDS 220	B048470	Mar. 05, 2005
NARDA DETECTOR	4503A	FSCM99899	NA

NOTE:
The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.3.3 TEST PROCEDURES

1. A detector was used on the output port of the EUT. An oscilloscope was used to read the peak response of the detector.
2. Replaced the EUT by the signal generator. The center frequency of the S.G was adjusted to the center frequency of the measured channel.
3. Adjusted the power to have the same peak reading on oscilloscope. Record the power level.

4.3.4 TEST SETUP



4.3.5 EUT OPERATING CONDITIONS

Same as Item 4.3.5

4.3.6 TEST RESULTS-DSSS

EUT	hp procurve wireless AP 420 na	**MODEL**	J8130A
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	24 deg. C, 64 %RH, 979 hPa
TESTED BY	Wen Yu		

Antenna 1 (Gain 4.4 dBi)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	15.9	30	PASS
6	2437	19.1	30	PASS
11	2462	16.3	30	PASS

Antenna 2 (Gain 1.5 dBi)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	16.5	30	PASS
6	2437	19.1	30	PASS
11	2462	16.9	30	PASS

Antenna 3 (Gain 6.7 dBi)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	14.9	29.3	PASS
6	2437	17.5	29.3	PASS
11	2462	14.5	29.3	PASS

Antenna 4 (Gain 6.5 dBi)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	14.9	29.5	PASS
6	2437	17.5	29.5	PASS
11	2462	14.5	29.5	PASS

4.3.7 TEST RESULTS-OFDM

EUT	hp procurve wireless AP 420 na	**MODEL**	J8130A
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	24 deg. C, 64 %RH, 979 hPa
TESTED BY	Wen Yu		

Antenna 1 (Gain 4.4 dBi)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	17.6	30	PASS
6	2437	20.5	30	PASS
11	2462	17.2	30	PASS

Antenna 2 (Gain 1.5 dBi)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	18.4	30	PASS
6	2437	20.5	30	PASS
11	2462	19.0	30	PASS

Antenna 3 (Gain 6.7 dBi)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	16.4	29.3	PASS
6	2437	20.5	29.3	PASS
11	2462	14.5	29.3	PASS

Antenna 4 (Gain 6.5 dBi)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	16.4	29.5	PASS
6	2437	20.5	29.5	PASS
11	2462	14.5	29.5	PASS

4.4 BAND EDGES MEASUREMENT

4.4.1 LIMITS OF BAND EDGES MEASUREMENT

Below –20dB of the highest emission level of operating band (in 100KHz Resolution Bandwidth).

4.4.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
R&S SPECTRUM ANALYZER	FSP40	100037	May. 06, 2004

NOTE:

1. The measurement uncertainty is less than +/- 2.6dB, which is calculated as per the NAMAS document NIS81.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.4.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer via a low lose cable. Set both RBW and VBW of spectrum analyzer to 100 kHz with suitable frequency span including 100 kHz bandwidth from band edge. The band edges was measured and recorded.

4.4.4 EUT OPERATING CONDITION

Same as Item 4.3.5

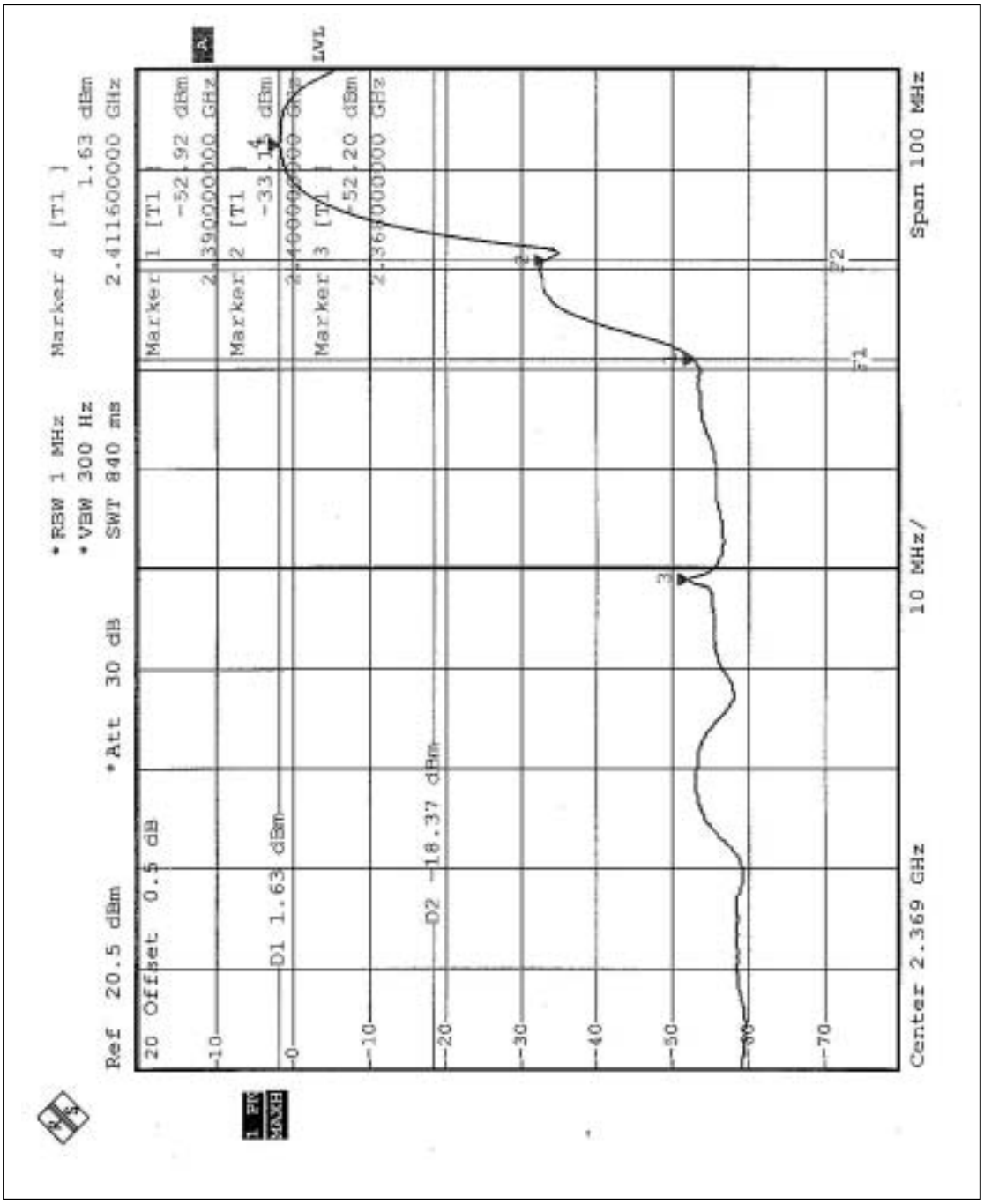
4.4.5 TEST RESULTS (ANTENNA 1 – DSSS)

The spectrum plots are attached on the following 2 pages. D1 line indicates the highest level, D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(C).

Note - The delta method is only used up to 2 MHz away from the restricted bandage, The radiated emissions which located in other restricted frequency band, the result, please refer to 4.2.

NOTE (1): The band edge emission plot on the following first page shows 54.55dB delta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2 is 103.20dBuV/m, so the maximum field strength in restrict band is 103.20-54.55=48.65dBuV/m which is under 54 dBuV/m limit.

NOTE (2): The band edge emission plot on the following second page shows 53.79 dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2 is 105.40dBuV/m, so the maximum field strength in restrict band is 105.40-53.79=51.61dBuV/m which is under 54 dBuV/m limit.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20 Offset 0.5 dB
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D2 -18.37 dBm
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*RBW 1 MHz
*VBW 300 Hz
SWT 840 ms
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1.63 dBm
2.411600000 GHz
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2.390000000 GHz
Marker 2 [T1]
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LVL
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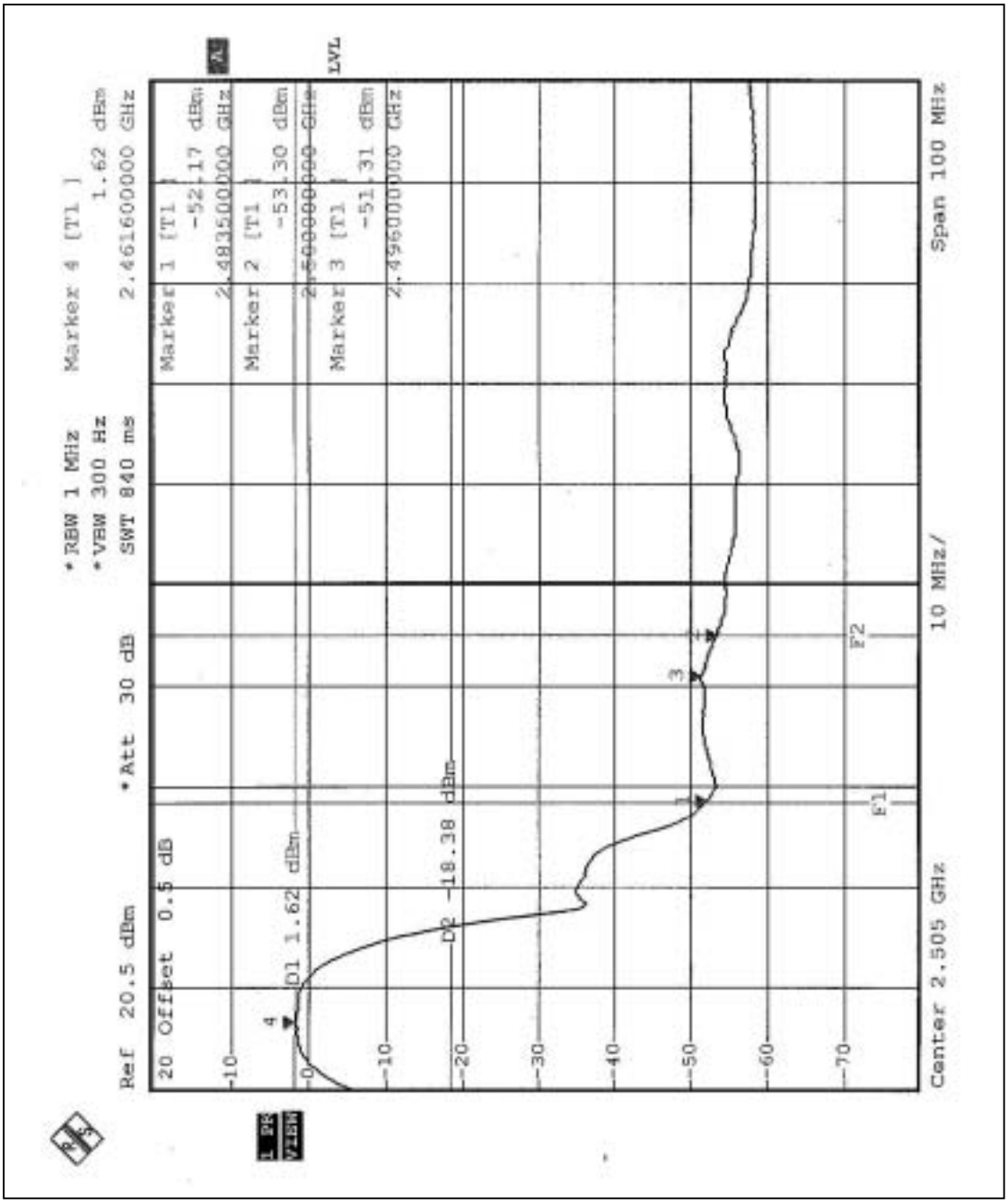
10 MHz/
Span 100 MHz


Ref 20.5 dBm
Att 30 dB
RBW 1 MHz
VBW 300 Hz
SWT 840 ms
Marker 4 [T1]
1.62 dBm
2.461600000 GHz
Marker 1 [T1]
-52.17 dBm
2.483500000 GHz
Marker 2 [T1]
-53.30 dBm
2.500000000 GHz
Marker 3 [T1]
-51.31 dBm
2.496000000 GHz
D1 1.62 dBm
D2 -18.38 dBm
F1
F2
Center 2.505 GHz
10 MHz/
Span 100 MHz

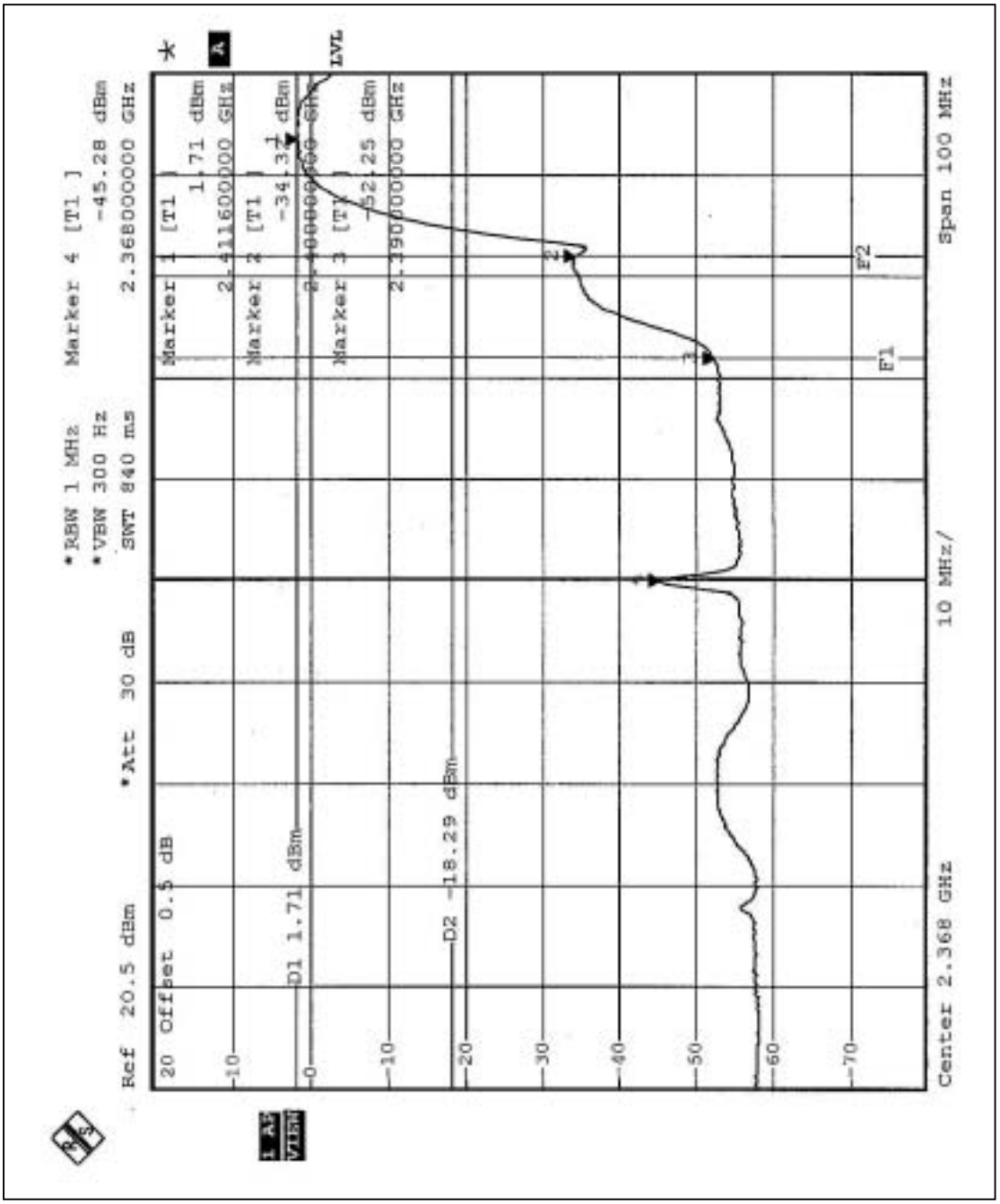
4.4.6 TEST RESULTS (ANTENNA 2 – DSSS)

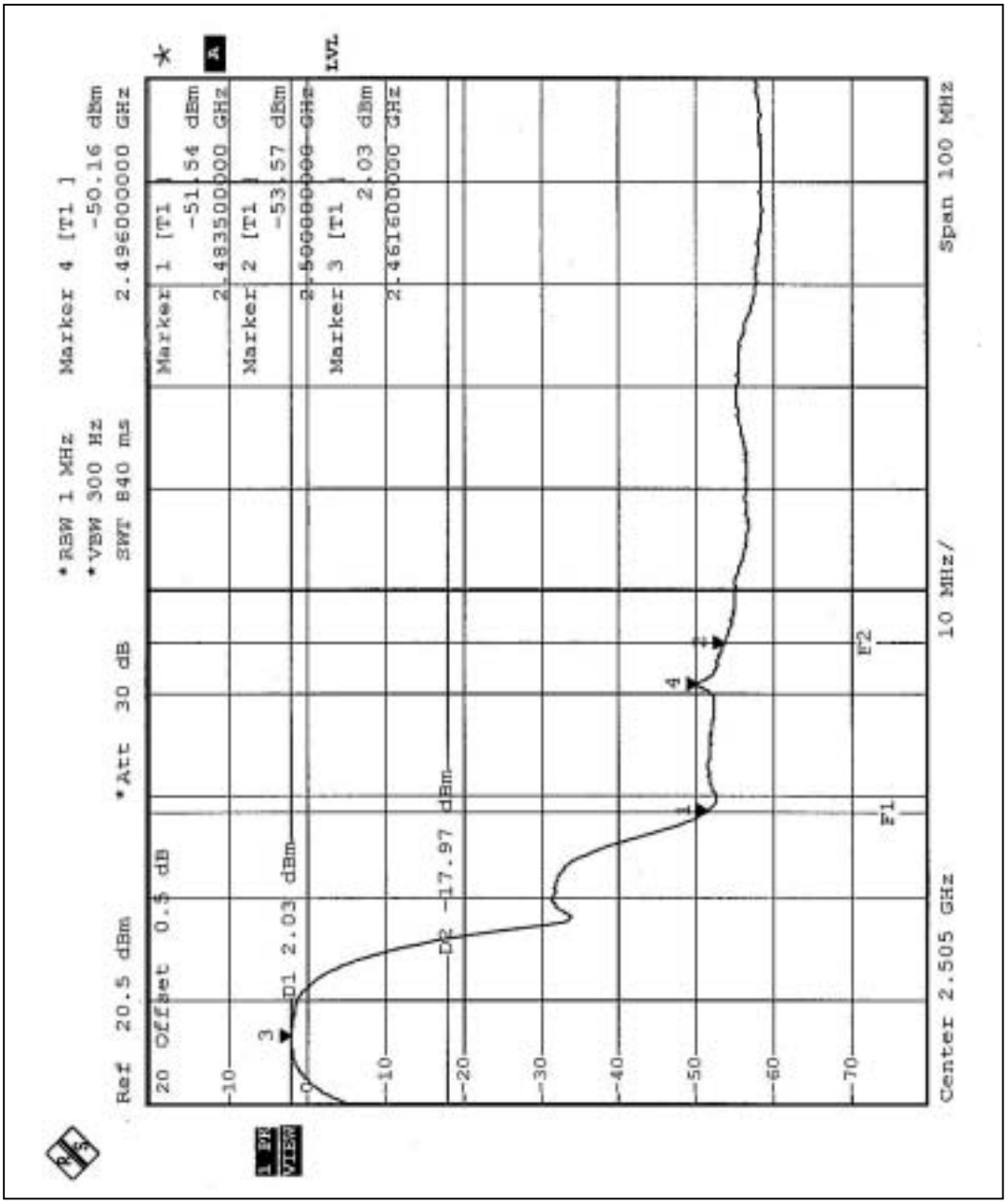
The spectrum plots are attached on the following 2 pages. D1 line indicates the highest level, D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(C).

Note - The delta method is only used up to 2 MHz away from the restricted bandage, The radiated emissions which located in other restricted frequency band, the result, please refer to 4.2.

NOTE (1): The band edge emission plot on the following first page shows 53.96dB delta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2 is 104.4dBuV/m, so the maximum field strength in restrict band is 104.40-53.96=50.44dBuV/m which is under 54 dBuV/m limit.

NOTE (2): The band edge emission plot on the following second page shows 53.57 dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2 is 103.80dBuV/m, so the maximum field strength in restrict band is 103.80-53.57=50.23dBuV/m which is under 54 dBuV/m limit.


Ref 20.5 dBm
Att 30 dB
RBW 1 MHz
VBW 300 Hz
SWT 840 ms
Marker 4 [T1]
-45.28 dBm
2.368000000 GHz
Marker 1 [T1]
1.71 dBm
2.411600000 GHz
Marker 2 [T1]
-34.37 dBm
Marker 3 [T1]
-52.25 dBm
2.190000000 GHz
20 Offset 0.5 dB
D1 1.71 dBm
D2 -18.29 dBm
LVL
Center 2.368 GHz
10 MHz/
Span 100 MHz


Ref 20.5 dBm
Offset 0.5 dB
*Att 30 dB
*RBW 1 MHz
*VBW 300 Hz
SWT 840 ms
Marker 4 [T1]
-50.16 dBm
2.496000000 GHz
Marker 1 [T1]
-51.54 dBm
2.483500000 GHz
Marker 2 [T1]
-53.57 dBm
2.500000000 GHz
Marker 3 [T1]
2.03 dBm
2.461600000 GHz
D1 2.03 dBm
D2 -17.97 dBm
F1
F2
Center 2.505 GHz
10 MHz/
Span 100 MHz

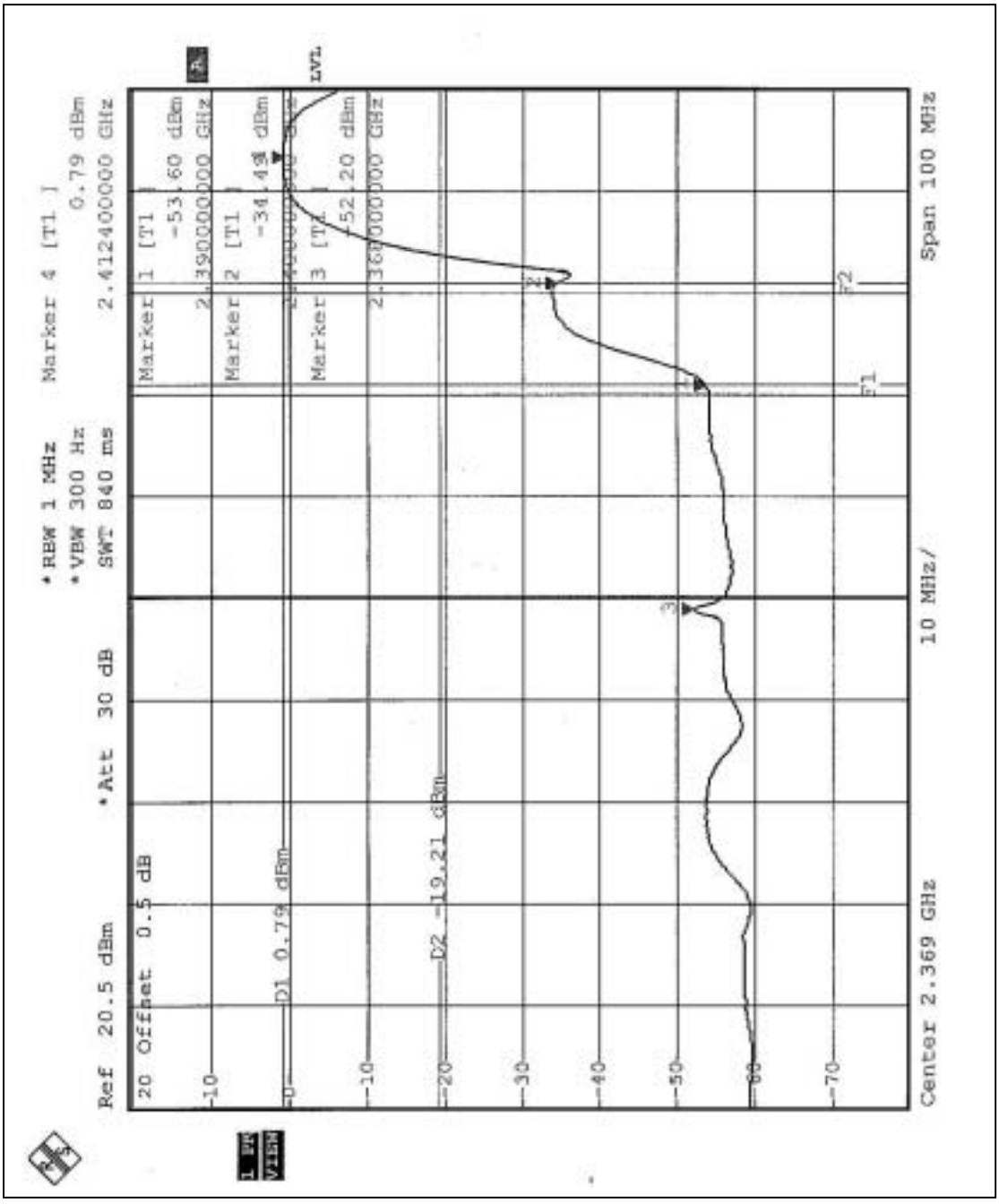
4.4.7 TEST RESULTS (ANTENNA 3 – DSSS)

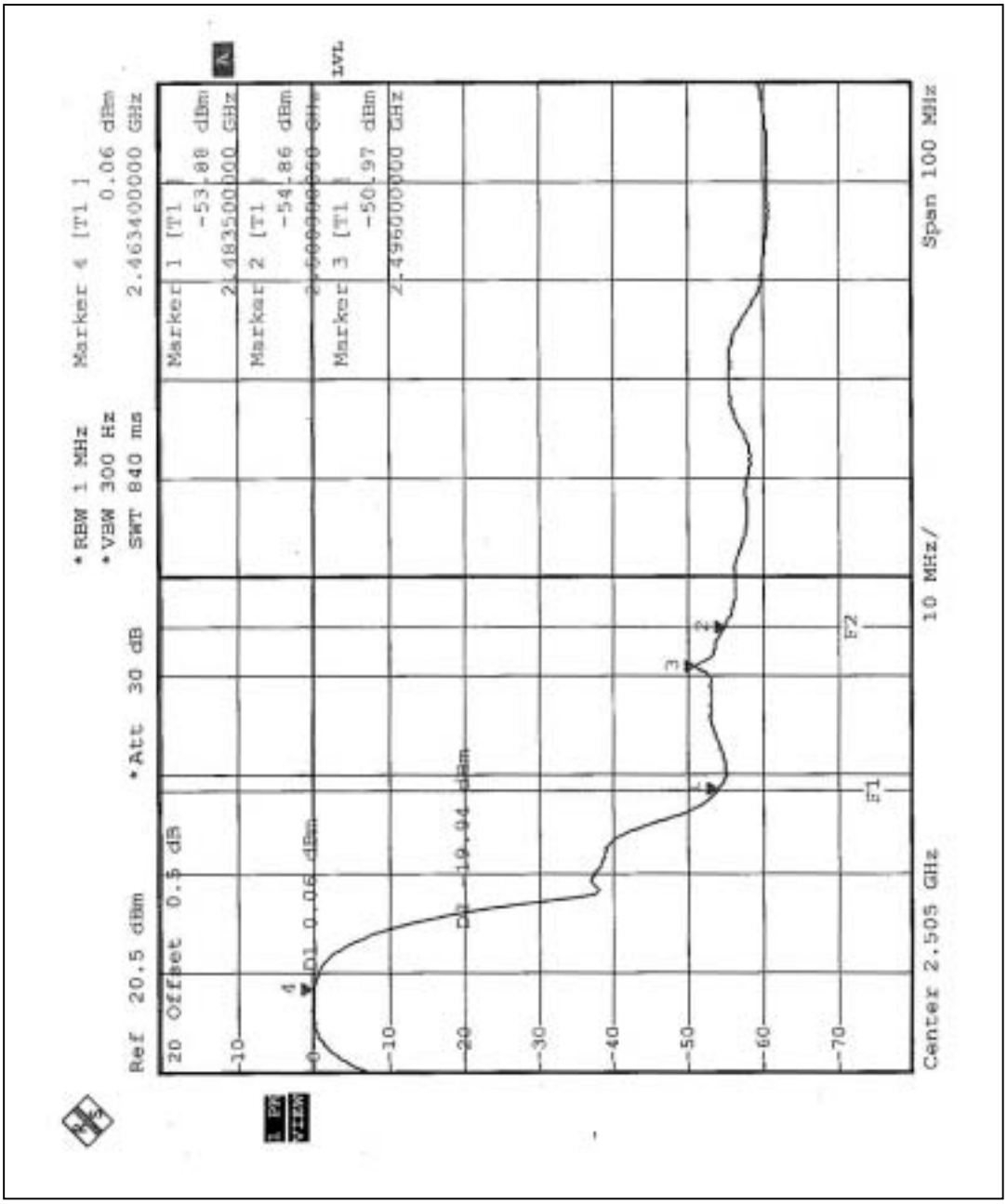
The spectrum plots are attached on the following 2 pages. D1 line indicates the highest level, D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(C).

Note - The delta method is only used up to 2 MHz away from the restricted bandage, The radiated emissions which located in other restricted frequency band, the result, please refer to 4.2.

NOTE (1): The band edge emission plot on the following first page shows 54.39dB delta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2 is 105.90dBuV/m, so the maximum field strength in restrict band is 105.90-54.39=51.51dBuV/m which is under 54 dBuV/m limit.

NOTE (2): The band edge emission plot on the following second page shows 53.94 dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2 is 106.80dBuV/m, so the maximum field strength in restrict band is 106.80-53.94=52.86dBuV/m which is under 54 dBuV/m limit.


Ref 20.5 dBm
20 Offset 0.5 dB
D1 0.79 dBm
D2 -19.21 dBm
*Att 30 dB
*RBW 1 MHz
*VBW 300 Hz
SWT 840 ms
Marker 4 [T1]
0.79 dBm
2.412400000 GHz
Marker 1 [T1
-53.60 dBm
2.390000000 GHz
Marker 2 [T1
-34.43 dBm
Marker 3 [T1
-52.20 dBm
2.360000000 GHz
Center 2.369 GHz
10 MHz/
Span 100 MHz


Ref 20.5 dBm
Att 30 dB
RBW 1 MHz
VBW 300 Hz
SWT 840 ms
Marker 4 [T1]
0.06 dBm
2.463400000 GHz
Offset 0.5 dB
D1 0.06 dBm
D2 -19.94 dBm
Marker 1 [T1]
-53.88 dBm
2.483500000 GHz
Marker 2 [T1]
-54.86 dBm
2.500000000 GHz
Marker 3 [T1]
-50.97 dBm
2.496000000 GHz
Center 2.505 GHz
10 MHz/
Span 100 MHz

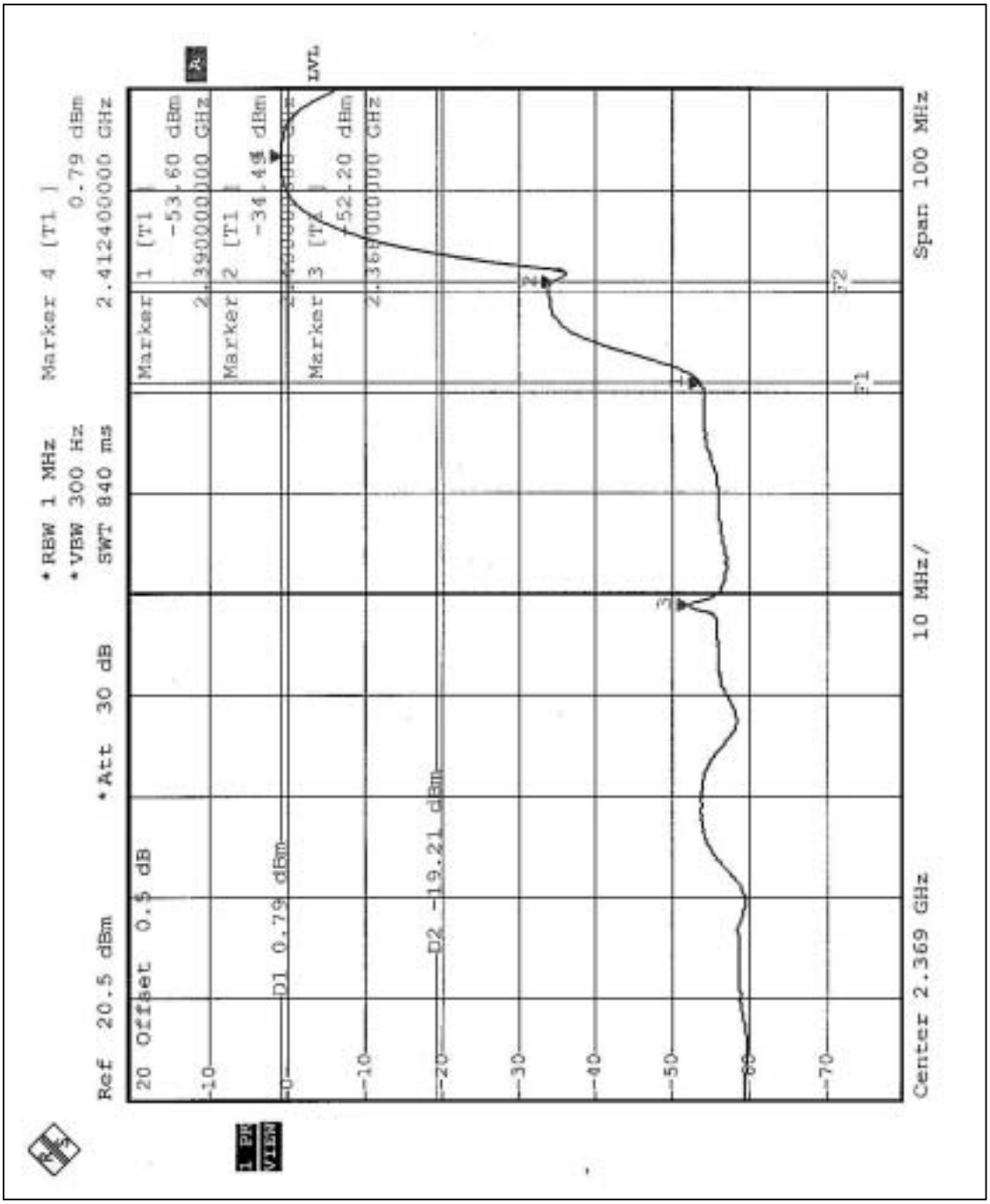
4.4.8 TEST RESULTS (ANTENNA 4 – DSSS)

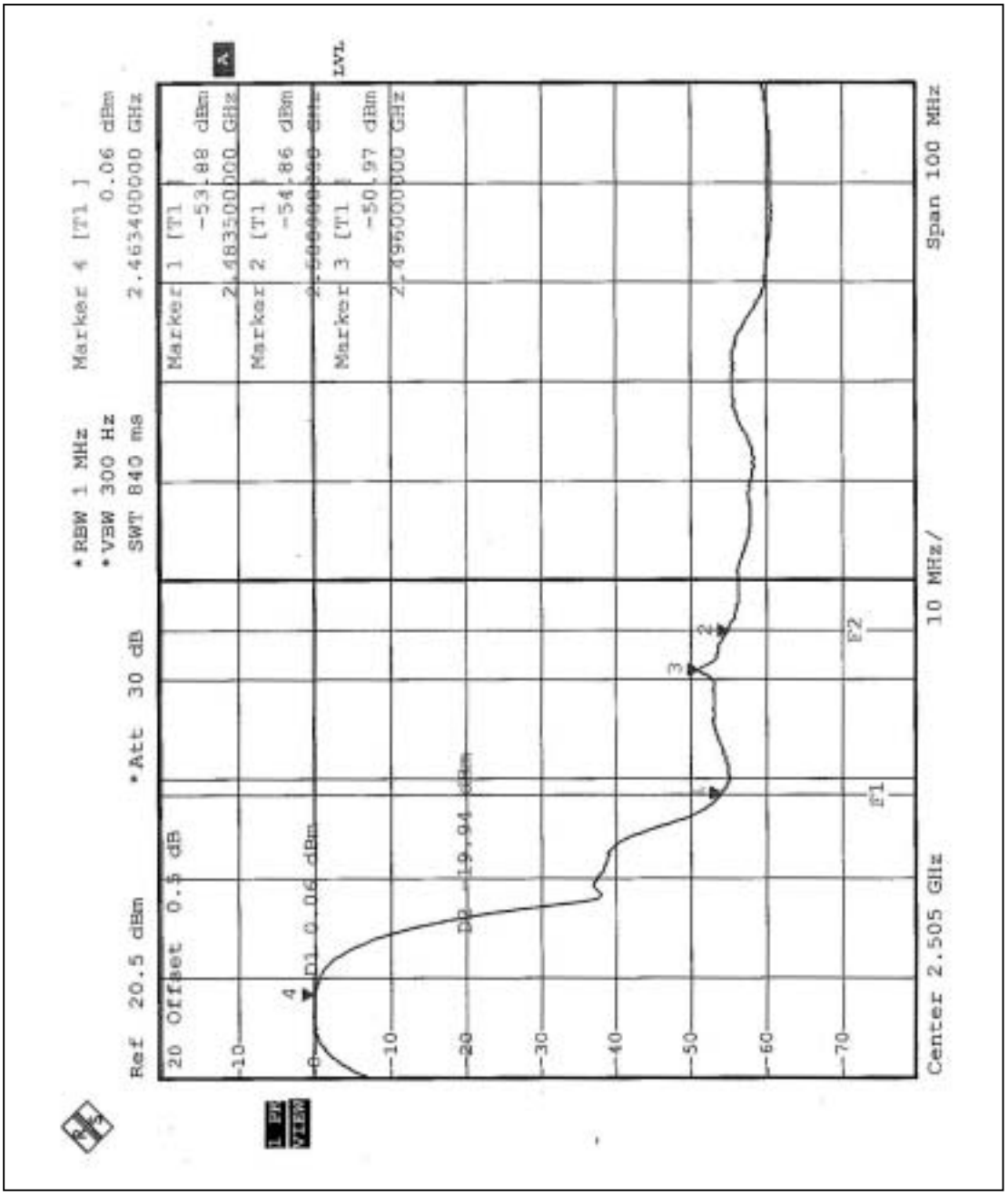
The spectrum plots are attached on the following 2 pages. D1 line indicates the highest level, D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(C).

Note - The delta method is only used up to 2 MHz away from the restricted bandage, The radiated emissions which located in other restricted frequency band, the result, please refer to 4.2.

NOTE (1): The band edge emission plot on the following first page shows 54.39dB delta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2 is 106.90dBuV/m, so the maximum field strength in restrict band is 106.90-54.39=52.51dBuV/m which is under 54 dBuV/m limit.

NOTE (2): The band edge emission plot on the following second page shows 53.94 dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2 is 106.80dBuV/m, so the maximum field strength in restrict band is 106.80-53.94=52.86dBuV/m which is under 54 dBuV/m limit.


Ref 20.5 dBm
20 Offset 0.5 dB
D1 0.79 dBm
D2 -19.21 dBm
* Att 30 dB
* RBW 1 MHz
* VBW 300 Hz
SWT 840 ms
Marker 4 [T1]
0.79 dBm
2.412400000 GHz
Marker 1 [T1]
-53.60 dBm
2.390000000 GHz
Marker 2 [T1]
-34.44 dBm
Marker 3 [T1]
-52.20 dBm
2.360000000 GHz
Span 100 MHz
10 MHz/
Center 2.369 GHz


Ref 20.5 dBm
Att 30 dB
RBW 1 MHz
VBW 300 Hz
SWT 840 ms
Marker 4 [T1]
0.06 dBm
2.463400000 GHz
Offset 0.5 dB
D1 0.06 dBm
D2 -19.94 dBm
Marker 1 [T1]
-53.88 dBm
2.483500000 GHz
Marker 2 [T1]
-54.86 dBm
Marker 3 [T1]
-50.97 dBm
2.496000000 GHz
Center 2.505 GHz
10 MHz/
Span 100 MHz

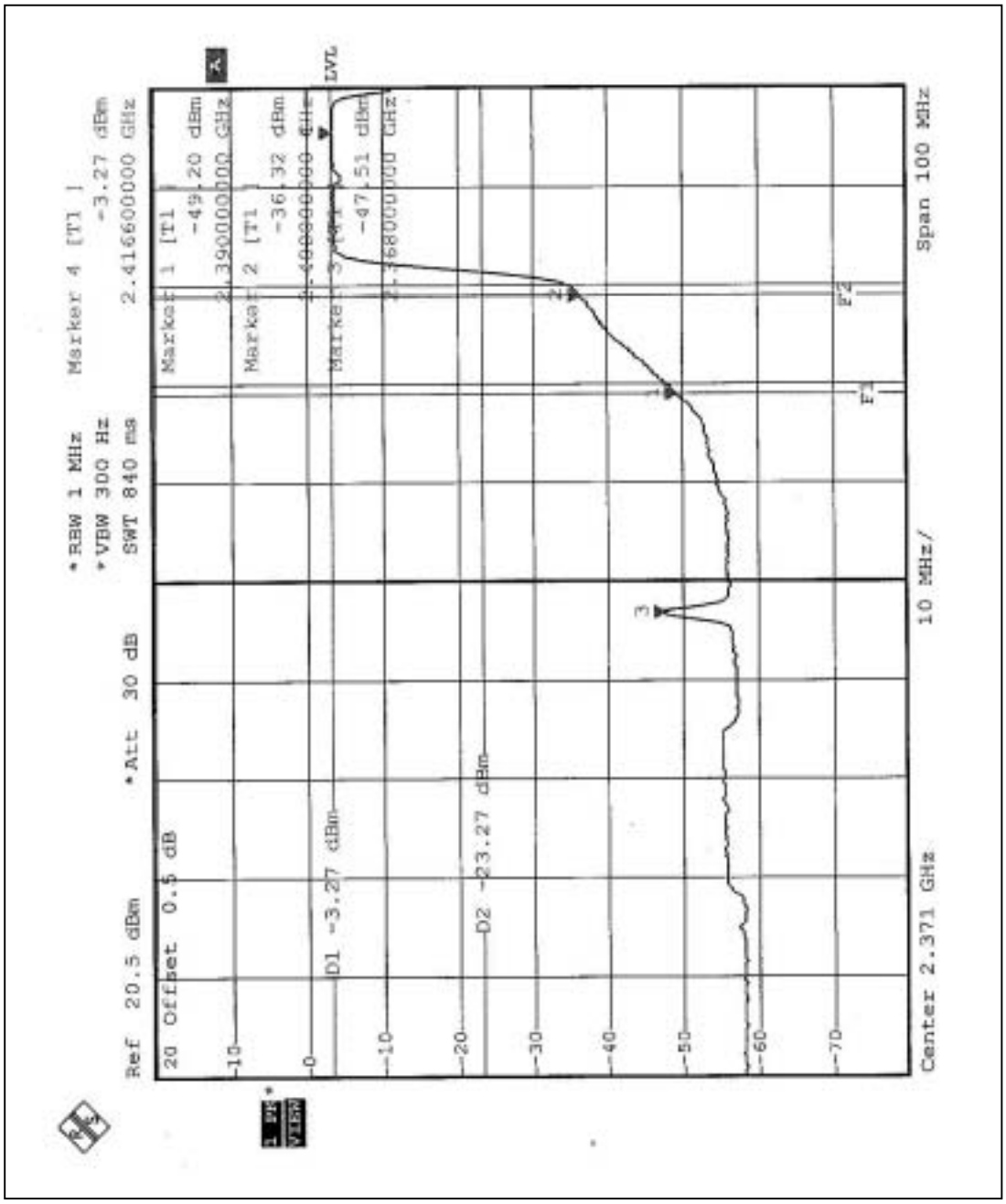
4.4.9 TEST RESULTS (Antenna 1 – OFDM)

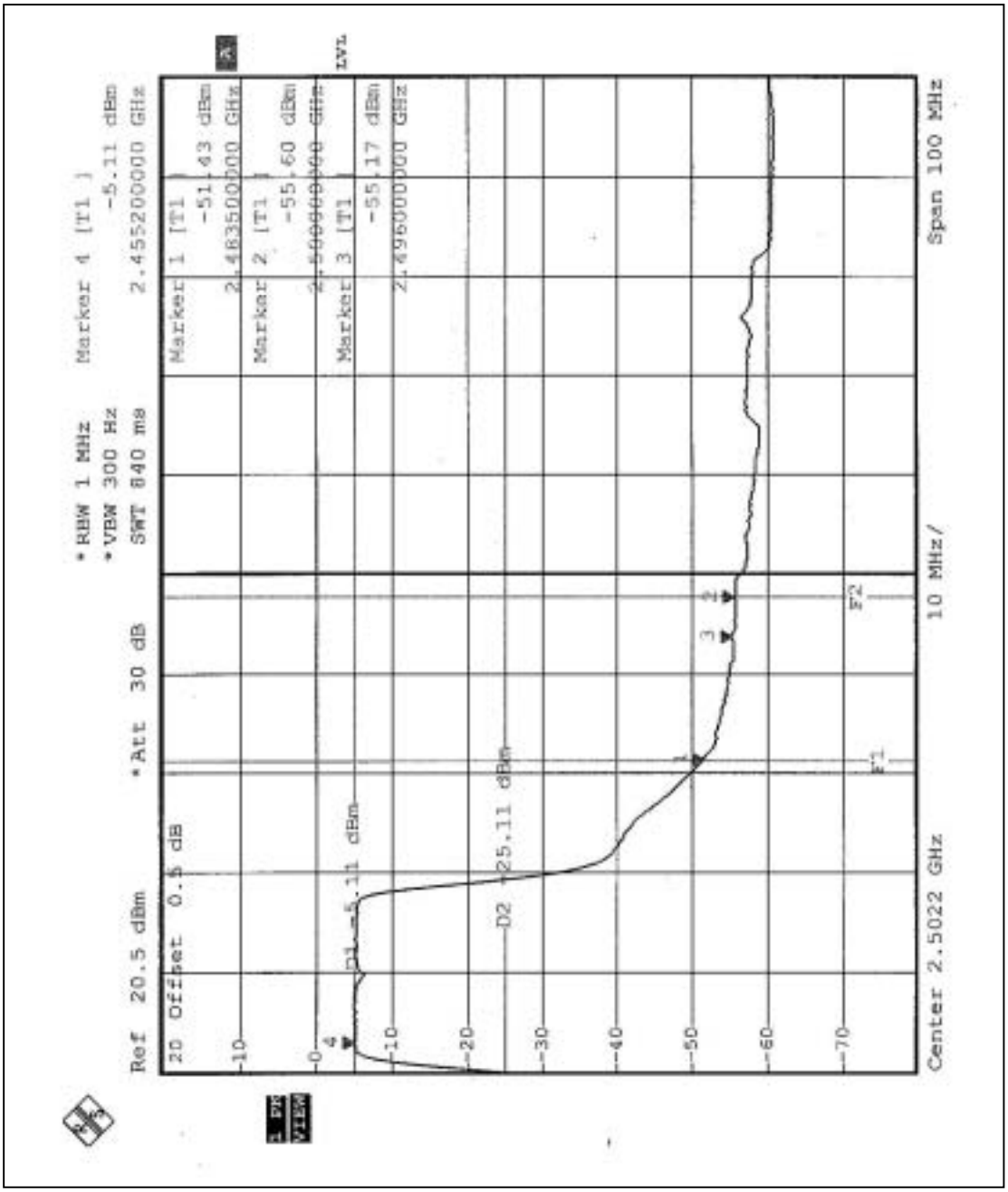
The spectrum plots are attached on the following 2 pages. D1 line indicates the highest level, D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(C).

Note - The delta method is only used up to 2 MHz away from the restricted bandage, The radiated emissions which located in other restricted frequency band, the result, please refer to 4.2.

NOTE (1): The band edge emission plot on the following first page shows 45.93dB delta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2 is 99.3dBuV/m, so the maximum field strength in restrict band is 99.3-45.93=53.37dBuV/m which is under 54 dBuV/m limit.

NOTE (2): The band edge emission plot on the following second page shows 46.32dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2 is 99.3dBuV/m, so the maximum field strength in restrict band is 99.3-46.32=52.98dBuV/m which is under 54 dBuV/m limit.


Ref 20.5 dBm
Att 30 dB
RBW 1 MHz
VBW 300 Hz
SWT 840 ms
Marker 4 [T1]
-3.27 dBm
2.416600000 GHz
Marker 1 [T1]
-49.20 dBm
2.390000000 GHz
Marker 2 [T1]
-36.32 dBm
2.400000000 GHz
Marker 3 [T1]
-47.51 dBm
2.368000000 GHz
20 Offset 0.5 dB
D1 -3.27 dBm
D2 -23.27 dBm
Center 2.371 GHz
10 MHz/
Span 100 MHz


Ref 20.5 dBm
Att 30 dB
RBW 1 MHz
VBW 300 Hz
SWT 840 ms
Marker 4 [T1]
-5.11 dBm
2.455200000 GHz
Marker 1 [T1]
-51.43 dBm
2.483500000 GHz
Marker 2 [T1]
-55.60 dBm
Marker 3 [T1]
-55.17 dBm
2.496000000 GHz
Center 2.5022 GHz
10 MHz/
Span 100 MHz

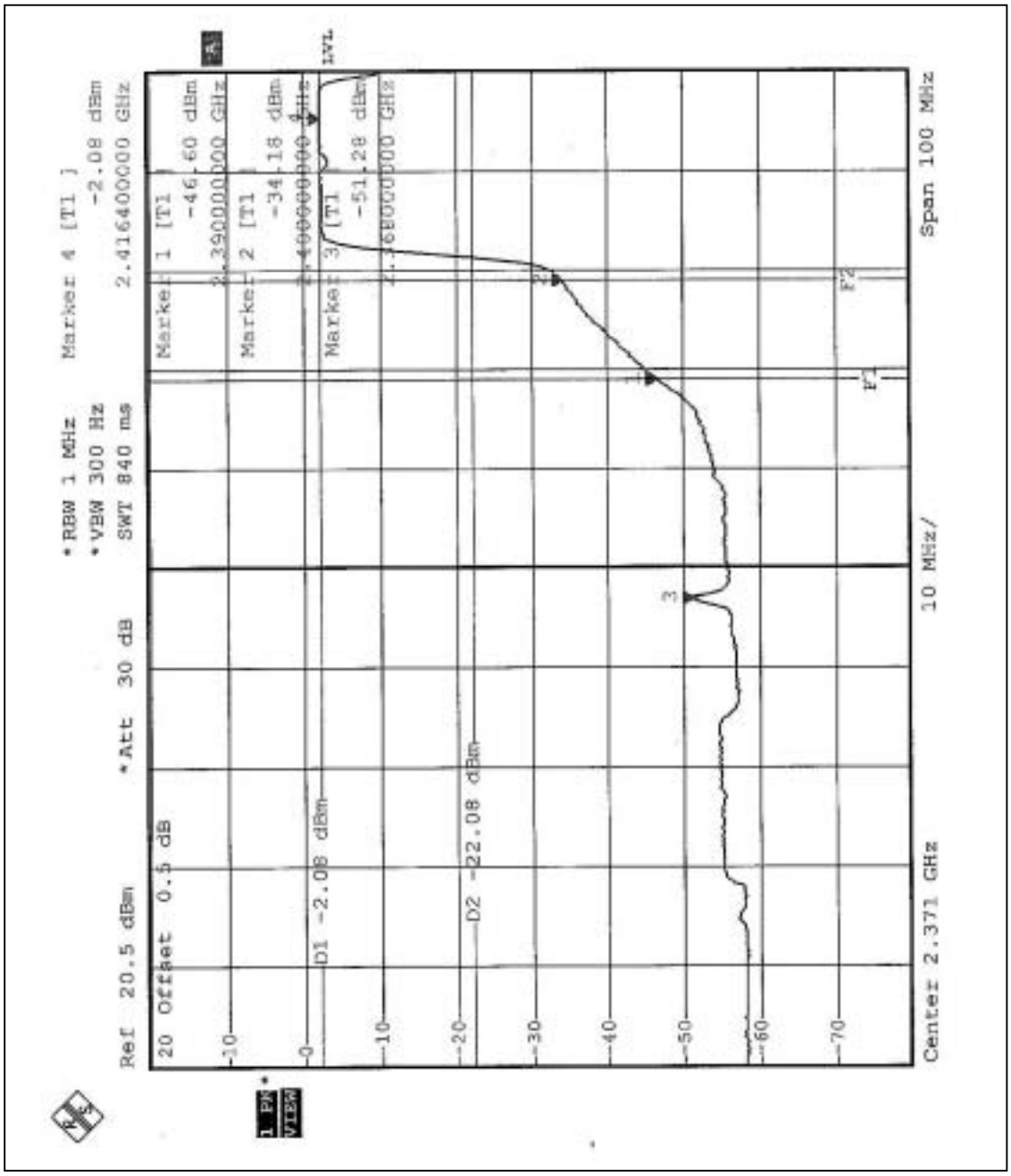
4.4.10 TEST RESULTS (Antenna 2 – OFDM)

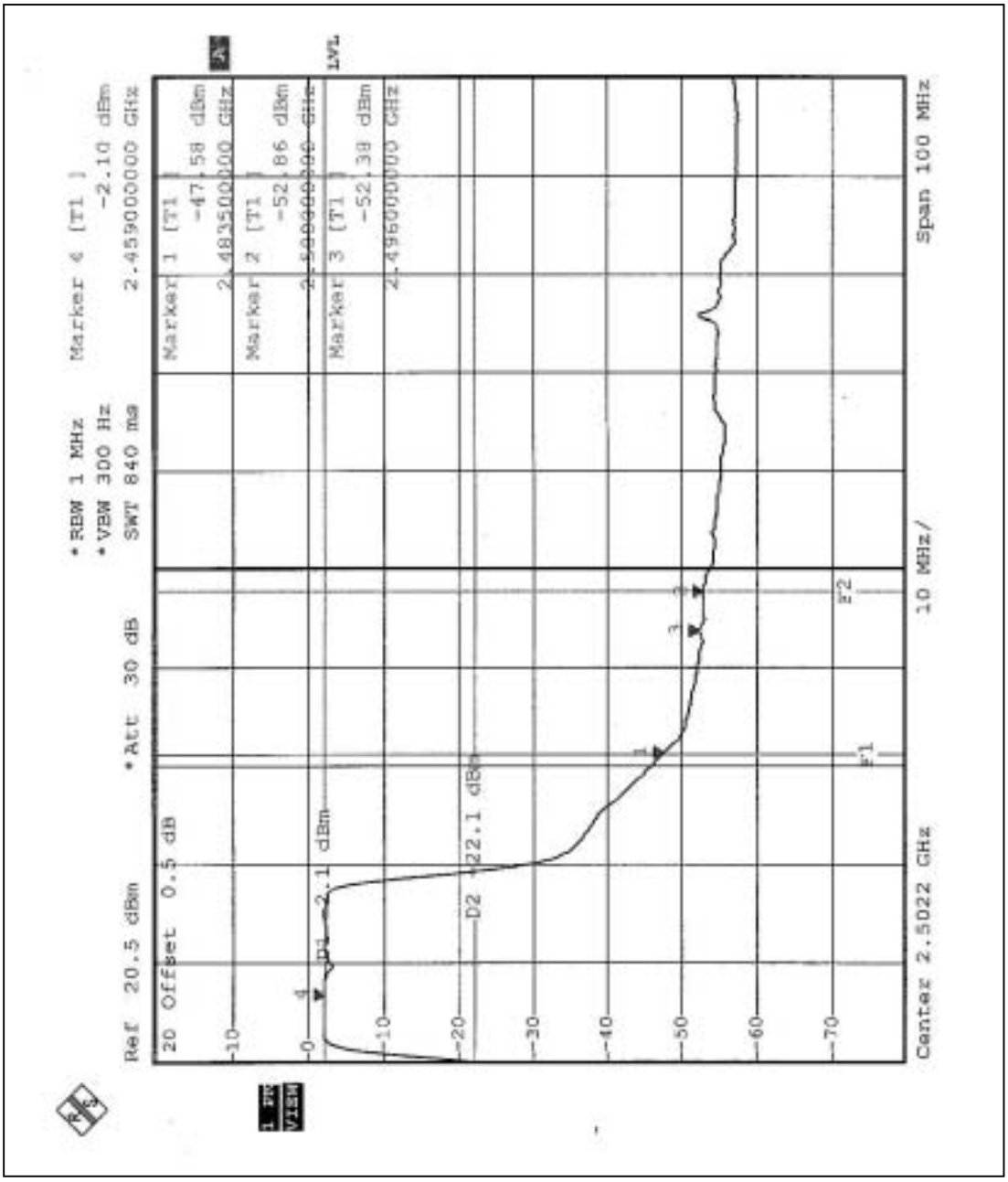
The spectrum plots are attached on the following 2 pages. D1 line indicates the highest level, D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(C).

Note - The delta method is only used up to 2 MHz away from the restricted bandage, The radiated emissions which located in other restricted frequency band, the result, please refer to 4.2.

NOTE (1): The band edge emission plot on the following first page shows 44.52dB delta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2 is 97.00dBuV/m, so the maximum field strength in restrict band is 97.00-44.52=52.48dBuV/m which is under 54 dBuV/m limit.

NOTE (2): The band edge emission plot on the following second page shows 45.48dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2 is 98.4dBuV/m, so the maximum field strength in restrict band is 98.4-45.48=52.92dBuV/m which is under 54 dBuV/m limit.


Ref 20.5 dBm
*Att 30 dB
*RBW 1 MHz
*VBW 300 Hz
SWT 840 ms
Marker 4 [T1]
-2.08 dBm
2.416400000 GHz
20 Offset 0.5 dB
D1 -2.08 dBm
D2 -22.08 dBm
Marker 1 [T1]
-46.60 dBm
2.390000000 GHz
Marker 2 [T1]
-34.18 dBm
2.400000000 GHz
Marker 3 [T1]
-51.28 dBm
2.416000000 GHz
Center 2.371 GHz
10 MHz/
Span 100 MHz


Ref 20.5 dBm
Att 30 dB
RBW 1 MHz
VBW 300 Hz
SWT 840 ms
Marker 6 [T1]
-2.10 dBm
2.45900000 GHz
Offset 0.5 dB
D1 -2.1 dBm
D2 -22.1 dBm
Marker 1 [T1]
-47.58 dBm
2.48350000 GHz
Marker 2 [T1]
-52.86 dBm
2.50000000 GHz
Marker 3 [T1]
-52.39 dBm
2.49600000 GHz
Center 2.5022 GHz
10 MHz/
Span 100 MHz

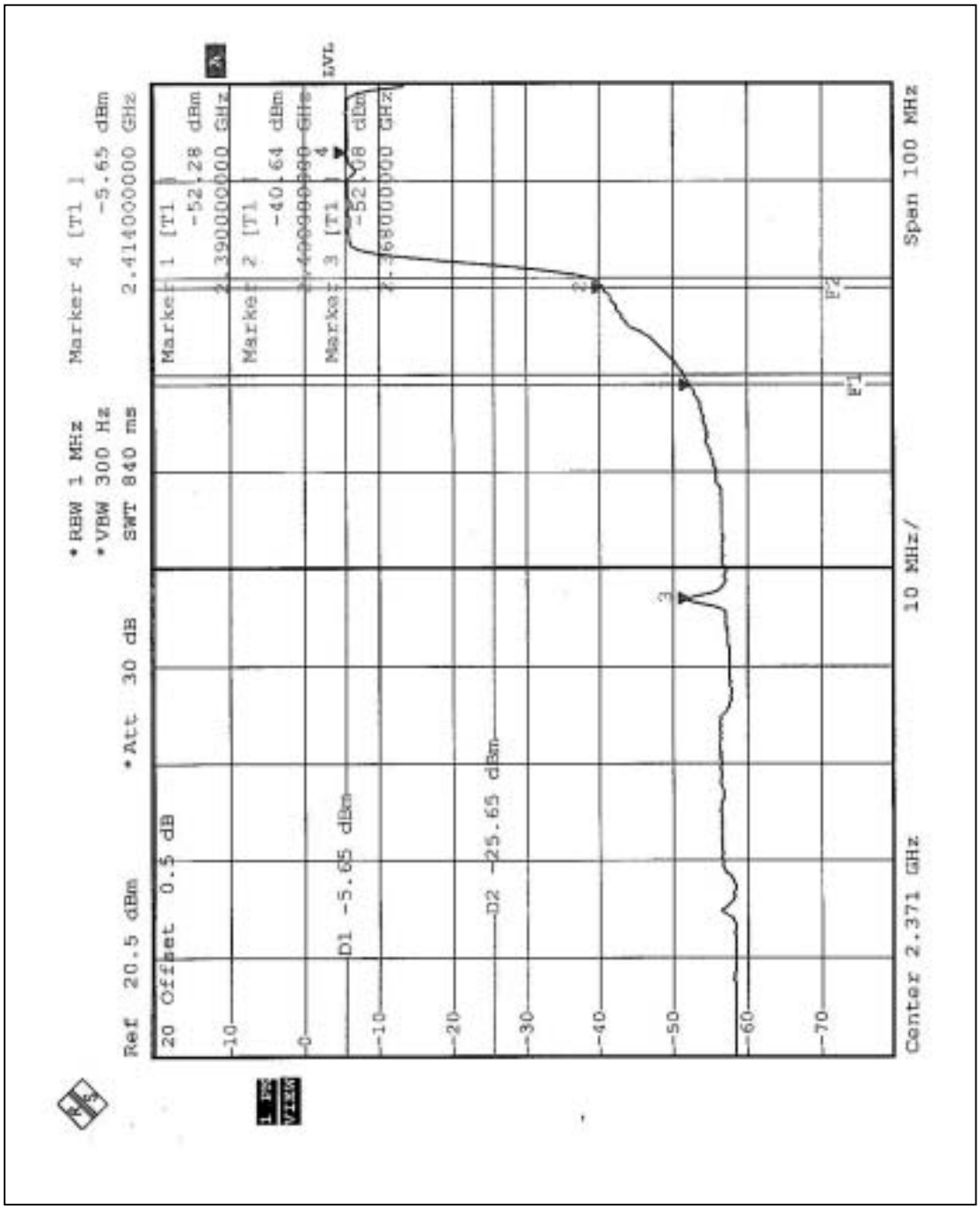
4.4.11 TEST RESULTS (Antenna 3 – OFDM)

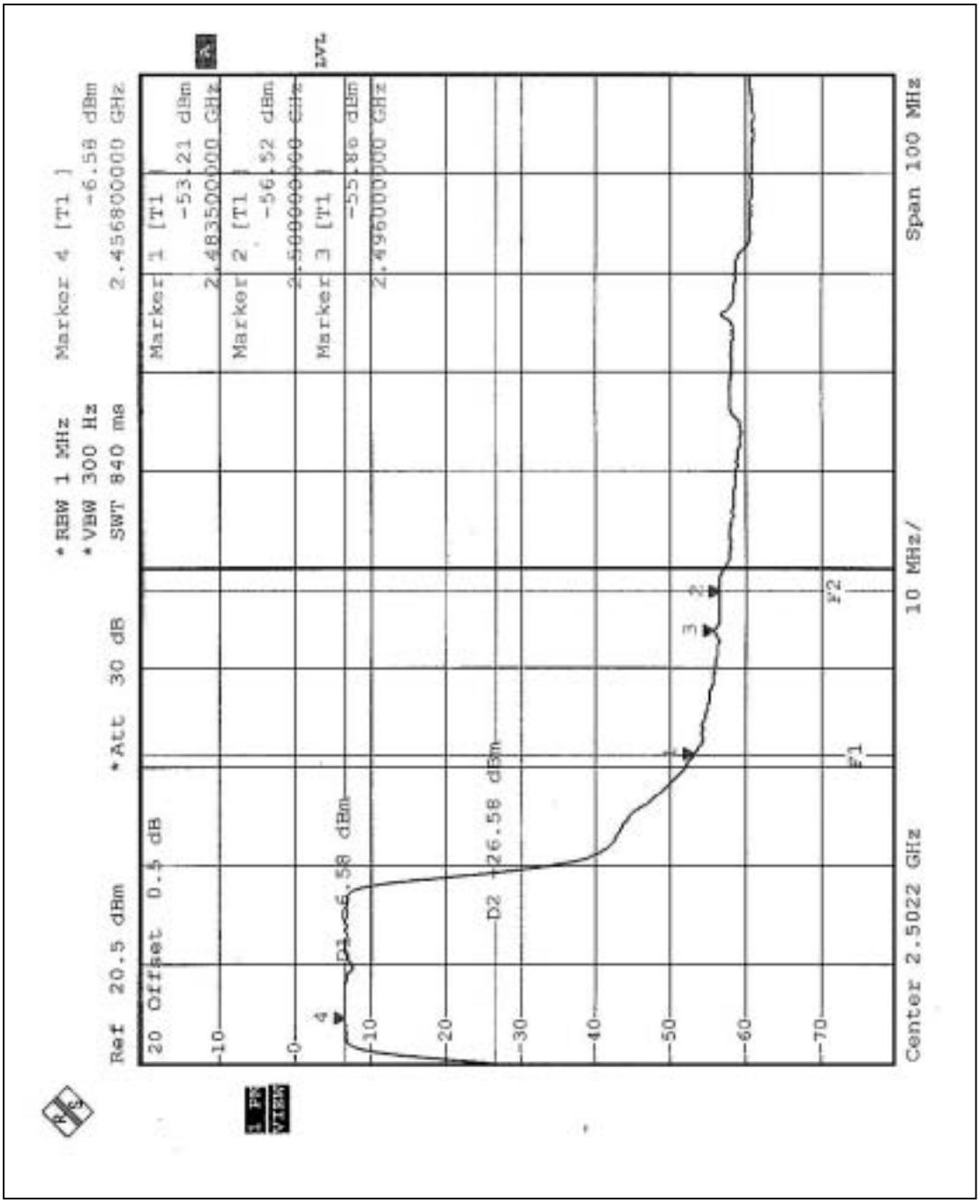
The spectrum plots are attached on the following 2 pages. D1 line indicates the highest level, D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(C).

Note - The delta method is only used up to 2 MHz away from the restricted bandage, The radiated emissions which located in other restricted frequency band, the result, please refer to 4.2.

NOTE (1): The band edge emission plot on the following first page shows 46.63dB delta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2 is 98.90dBuV/m, so the maximum field strength in restrict band is 98.90-46.63=52.27dBuV/m which is under 54 dBuV/m limit.

NOTE (2): The band edge emission plot on the following second page shows 46.63dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2 is 99.40dBuV/m, so the maximum field strength in restrict band is 99.40-46.63=52.77dBuV/m which is under 54 dBuV/m limit.


Ref 20.5 dBm
Att 30 dB
RBW 1 MHz
VBW 300 Hz
SWT 840 ms
Marker 4 [T1]
-5.65 dBm
2.41400000 GHz
Marker 1 [T1]
-52.28 dBm
2.39000000 GHz
Marker 2 [T1]
-40.64 dBm
2.40000000 GHz
Marker 3 [T1]
-52.08 dBm
2.36800000 GHz
D1 -5.65 dBm
D2 -25.65 dBm
Center 2.371 GHz
10 MHz/
Span 100 MHz


Ref 20.5 dBm
Offset 0.5 dB
*Att 30 dB
*RBW 1 MHz
*VBW 300 Hz
SWT 840 ms
Marker 4 [T1]
-6.58 dBm
2.456800000 GHz
Marker 1 [T1]
-53.21 dBm
2.483500000 GHz
Marker 2 [T1]
-56.52 dBm
2.500000000 GHz
Marker 3 [T1]
-55.86 dBm
2.496000000 GHz
D1 -6.58 dBm
D2 -26.58 dBm
Center 2.5022 GHz
10 MHz/
Span 100 MHz

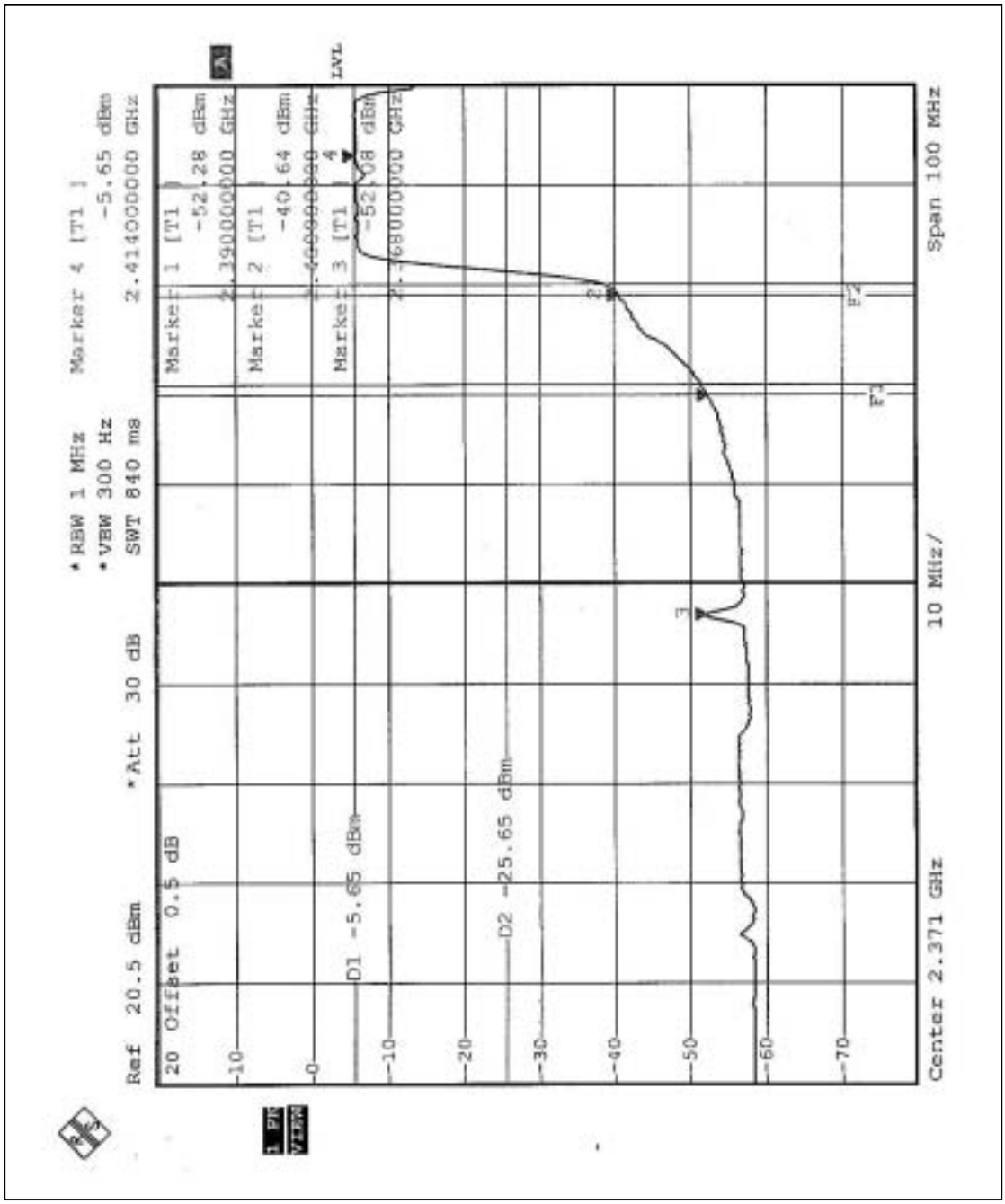
4.4.12 TEST RESULTS (Antenna 4 – OFDM)

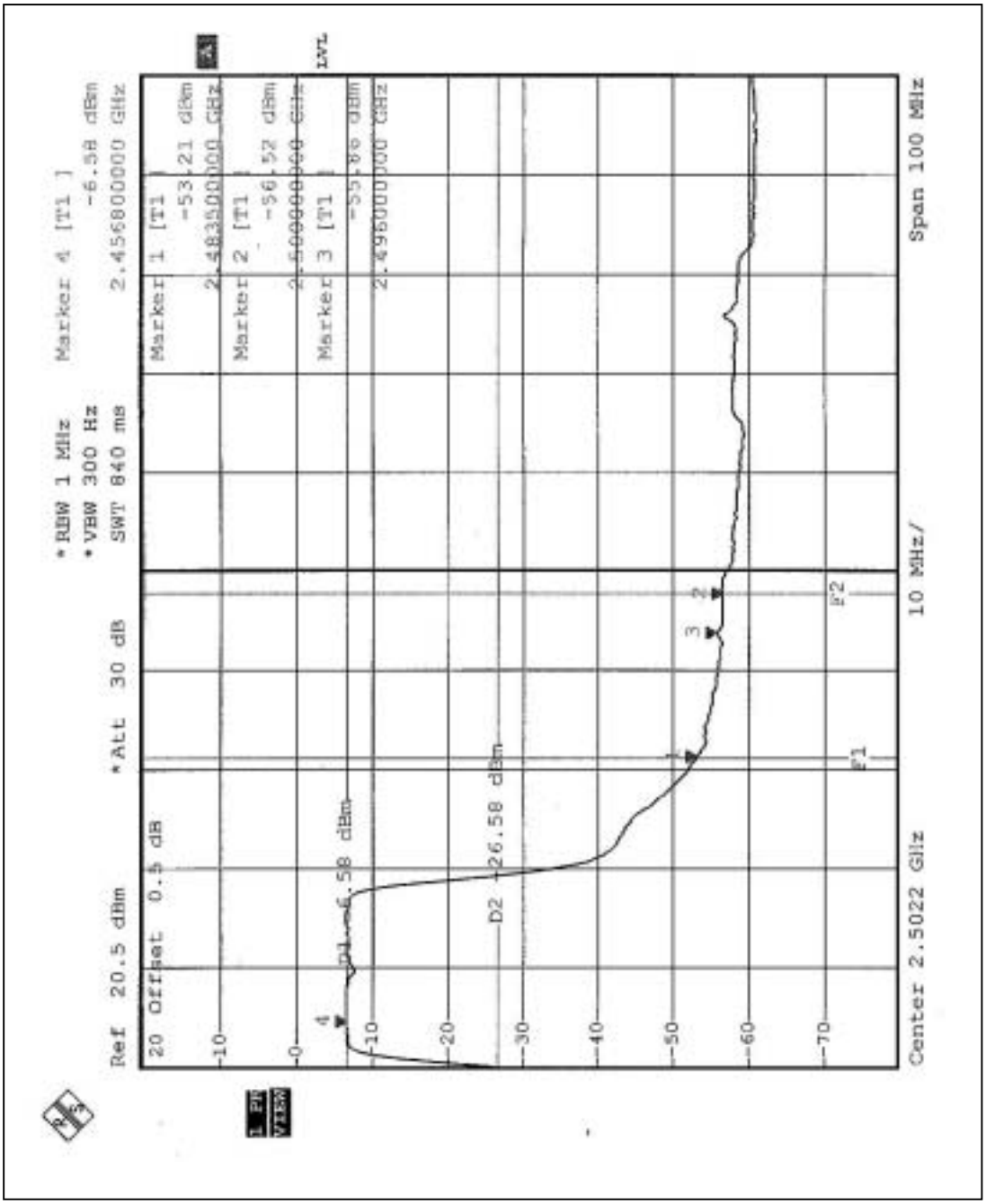
The spectrum plots are attached on the following 2 pages. D1 line indicates the highest level, D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(C).

Note - The delta method is only used up to 2 MHz away from the restricted bandage, The radiated emissions which located in other restricted frequency band, the result, please refer to 4.2.

NOTE (1): The band edge emission plot on the following first page shows 46.63dB delta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2 is 99.20dBuV/m, so the maximum field strength in restrict band is 99.20-46.63=52.57dBuV/m which is under 54 dBuV/m limit.

NOTE (2): The band edge emission plot on the following second page shows 46.63dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2 is 99.4dBuV/m, so the maximum field strength in restrict band is 99.4-46.63=52.77dBuV/m which is under 54 dBuV/m limit.


Ref 20.5 dBm
20 Offset 0.5 dB
*Att 30 dB
*RBW 1 MHz
*VBW 300 Hz
SWT 840 ms
Marker 4 [T1]
-5.65 dBm
2.414000000 GHz
Marker 1 [T1]
-52.28 dBm
2.390000000 GHz
Marker 2 [T1]
-40.64 dBm
2.400000000 GHz
Marker 3 [T1]
-52.08 dBm
2.368000000 GHz
D1 -5.65 dBm
D2 -25.65 dBm
Center 2.371 GHz
10 MHz/
Span 100 MHz


Ref 20.5 dBm
20 Offset 0.5 dB
*Att 30 dB
*RBW 1 MHz
*VBW 300 Hz
SWT 840 ms
Marker 4 [T1]
-6.58 dBm
2.456800000 GHz
Marker 1 [T1]
-53.21 dBm
2.483500000 GHz
Marker 2 [T1]
-56.52 dBm
2.500000000 GHz
Marker 3 [T1]
-55.86 dBm
2.496000000 GHz
D1 -6.58 dBm
D2 -26.58 dBm
Center 2.5022 GHz
10 MHz/
Span 100 MHz

4.5 ANTENNA REQUIREMENT

4.5.1 STANDARD APPLICABLE

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.
And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

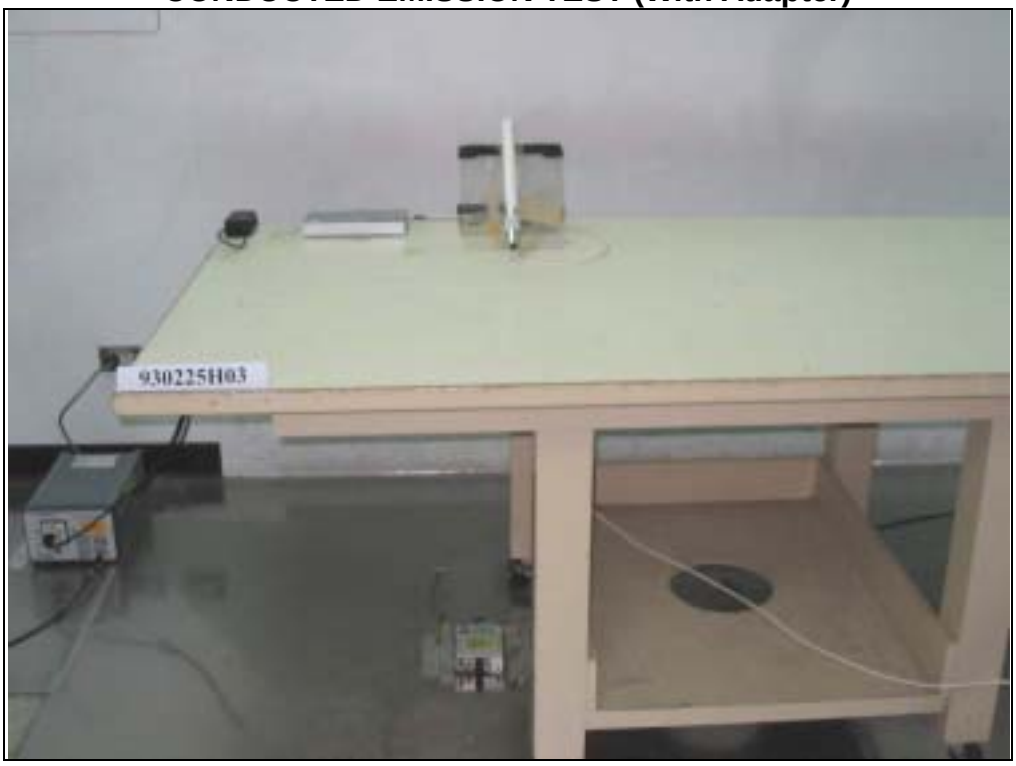
4.5.2 ANTENNA CONNECTED CONSTRUCTION

The antenna used in this product are Omnidirectional Antenna, Omnidirectional Diversity Antenna, Contemporary Patch Directional Antenna and Panel Directional Diversity Antenna with Reverse SMA (male) connector.

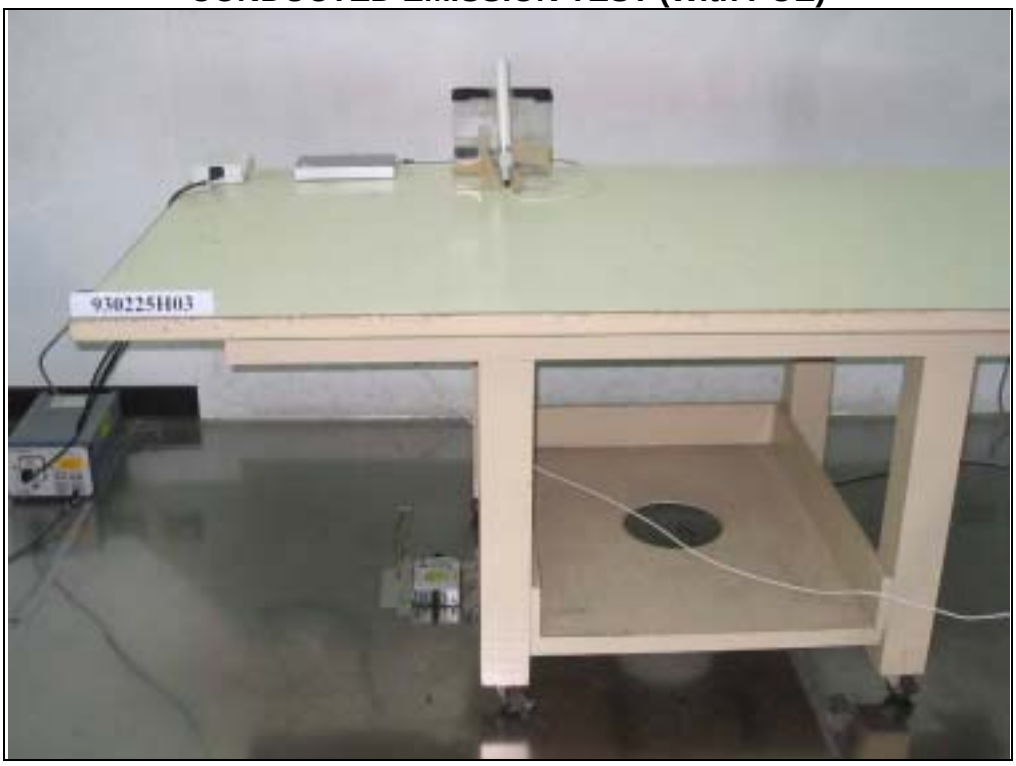
Antenna 1: The maximum Gain of the antenna is 4.4dBi.
Antenna 2: The maximum Gain of the antenna is 1.5dBi.
Antenna 3: The maximum Gain of the antenna is 6.7dBi.
Antenna 4: The maximum Gain of the antenna is 6.5dBi.

5 PHOTOGRAPHS OF THE TEST CONFIGURATION

CONDUCTED EMISSION TEST (With Adapter)



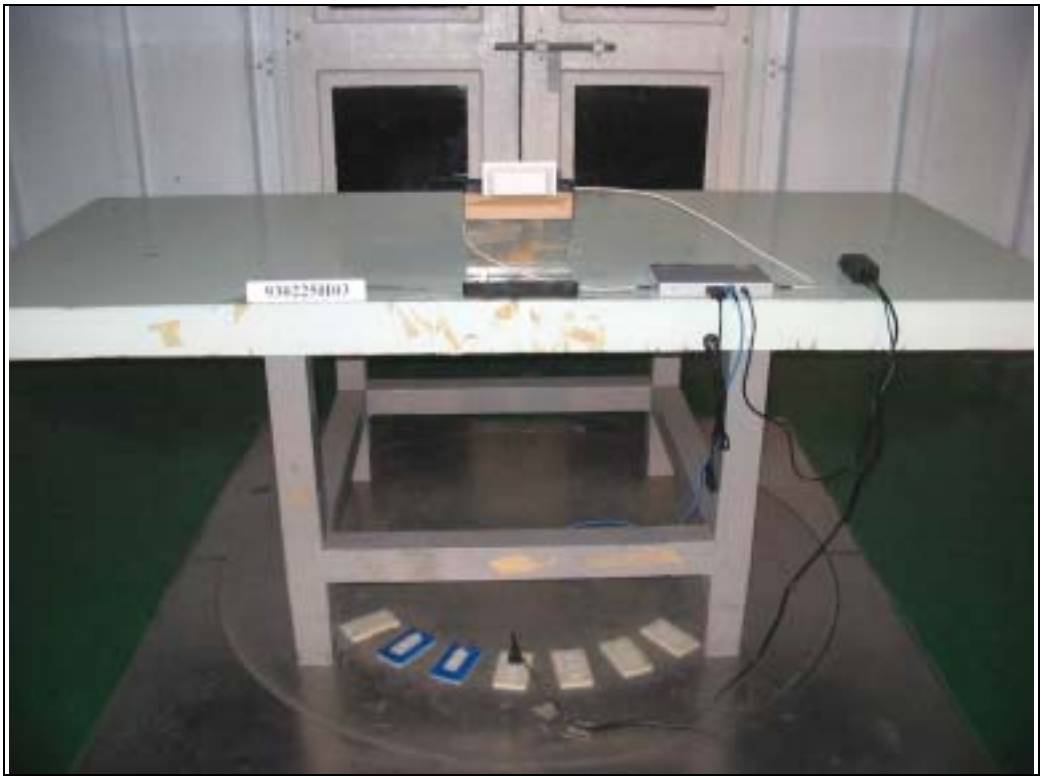
CONDUCTED EMISSION TEST (With POE)



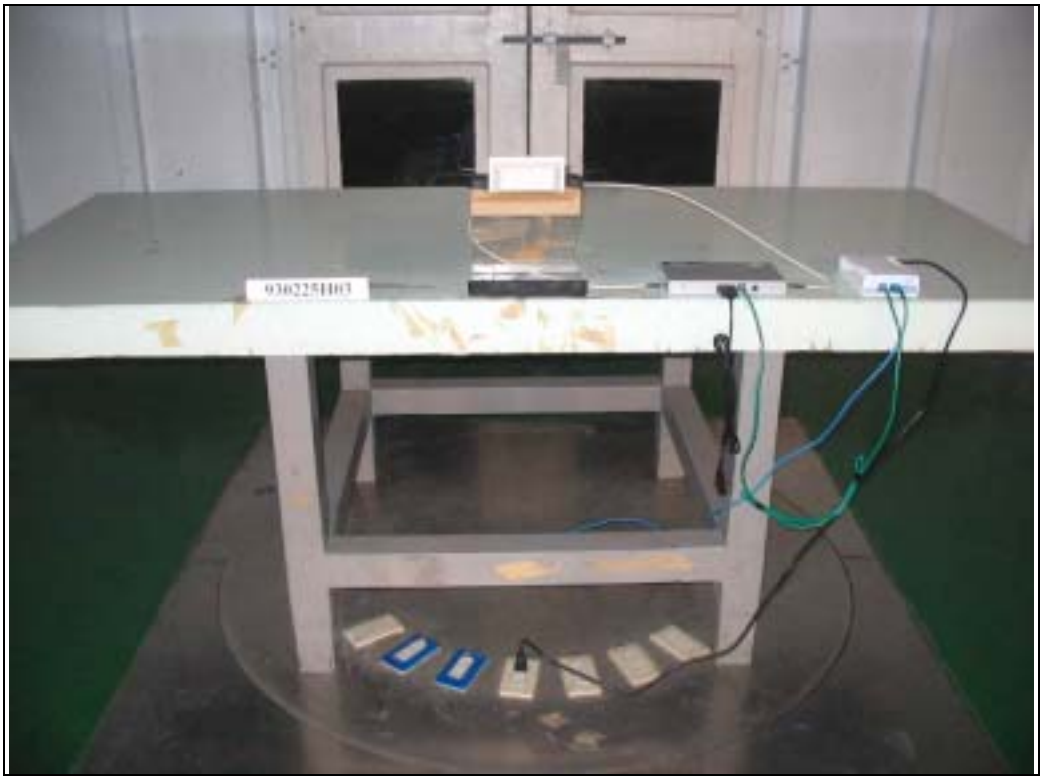
RADIATED EMISSION TEST **(Antenna 1 - Adapter)**

RADIATED EMISSION TEST **(Antenna 1 - POE)**

RADIATED EMISSION TEST **(Antenna 2 - Adapter)**



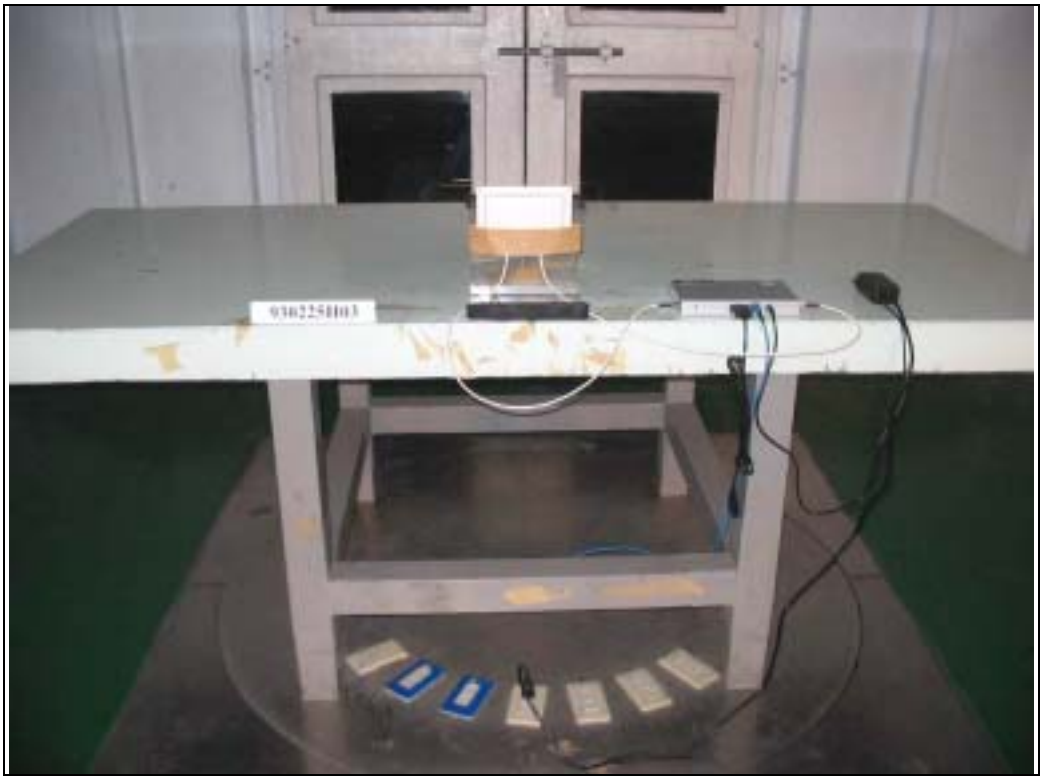
RADIATED EMISSION TEST **(Antenna 2 - POE)**



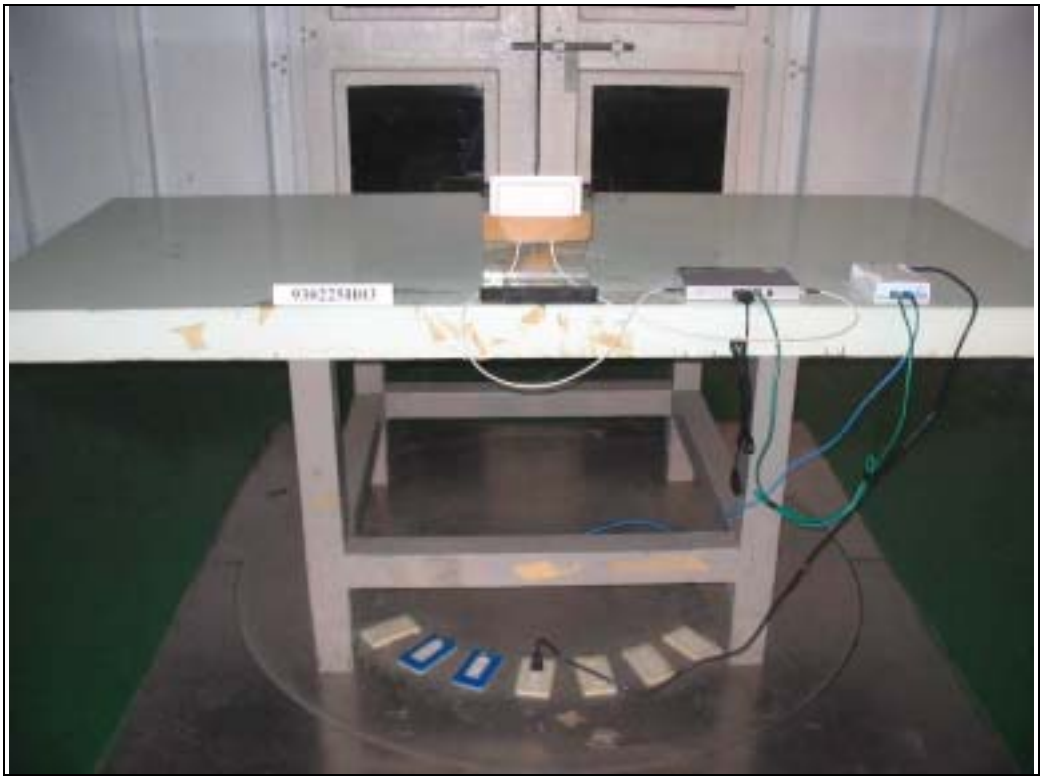
RADIATED EMISSION TEST **(Antenna 3 - Adapter)**

RADIATED EMISSION TEST **(Antenna 3 - POE)**

RADIATED EMISSION TEST **(Antenna 4 - Adapter)**



RADIATED EMISSION TEST **(Antenna 4 - POE)**



6 INFORMATION ON THE TESTING LABORATORIES

We, ADT Corp., were founded in 1988 to provide our best service in EMC and Safety consultation. Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025, Guide 25 or EN 45001:

USA	FCC, NVLAP, UL
Germany	TUV Rheinland
Japan	VCCI
New Zealand	MoC
Norway	NEMKO
Canada	INDUSTRY CANADA
R.O.C.	CNLA, BSMI

Copies of accreditation certificates of our laboratories obtained from approval agencies can be downloaded from our web site: www.adt.com.tw/index.5/phtml.

If you have any comments, please feel free to contact us at the following:

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The address and road map of all our labs can be found in our web site also.