FCC TEST REPORT

REPORT NO.: RF930707L05
MODEL NO.: WL AP 2454 NM1
OEM MODEL NO.: Refer to page 6
RECEIVED: July 01, 2004
TESTED: July 01, 2004~ July 20, 2004

APPLICANT: GLOBAL SUN TECHNOLOGY INC.

ADDRESS: NO.13, Tung Yuan Rd., Jung Li Industrial Park, Jung Li City, Tao Yuan Hsien, Taiwan, R.O.C.

ISSUED BY: Advance Data Technology Corporation

LAB LOCATION: No. 19, Hwa Ya 2nd Rd., Wen Hwa Tsuen, Kwei Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

0528
ILAC MRA

No. 2177-01

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1 CERTIFICATION

PRODUCT :	Wireless LAN Pocket AP
MODEL NO.:	WL AP 2454 NM1
BRAND NAME :	GLOBAL SUN
OEM MODEL NO.:	Refer to page 6
APPLICANT :	GLOBAL SUN TECHNOLOGY INC
TESTED:	July 01, 2004~ July 20, 2004
TEST ITEM:	ENGINEERING SAMPLE
STANDARDS :	FCC Part 15, Subpart C (Section 15.247), ANSI C63.4-2001

The above equipment has been tested by **Advance Data Technology Corporation**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

PREPARED BY : Wendy Liao , **DATE:** July 22, 2004

TECHNICAL ACCEPTANCE : Gary Chang , **DATE:** July 22, 2004
Responsible for EMI

APPROVED BY : Cody Chang / Deputy Manager **DATE:** July 22, 2004

2 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 15, Subpart C			
Standard Section	**Test Type and Limit**	**Result**	**REMARK**
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit Minimum passing margin is –8.18Db at 0.302MHz
15.247(a)(2)	Spectrum Bandwidth of a Direct Sequence Spread Spectrum System Limit: min. 500kHz	PASS	Meet the requirement of limit
15.247(b)	Maximum Peak Output Power Limit: max. 30dBm	PASS	Meet the requirement of limit
15.247©	Transmitter Radiated Emissions Limit: Table 15.209	PASS	Meet the requirement of limit Minimum passing margin is –3.11Db at 60.82MHz
15.247(d)	Power Spectral Density Limit: max. 8dBm	PASS	Meet the requirement of limit
15.247©	Band Edge Measurement Limit: 20 Db less than the peak value of fundamental frequency	PASS	Meet the requirement of limit

2.1 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as per the document CISPR 16-4.:

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted emissions	9k~30MHz	2.44 Db
Radiated emissions	30MHz ~ 200MHz	3.73 Db
	200MHz ~1000MHz	3.74 Db
	1GHz ~ 18GHz	2.20 Db
	18GHz ~ 40GHz	1.88 Db

3 GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Wireless LAN Pocket AP
MODEL NO.	WL AP 2454 NM1
OEM MODEL NO.	Refer to following page
POWER SUPPLY	5Vdc from AC adapter
MODULATION TYPE	BPSK, QPSK, CCK, 16QAM, 64QAM
RADIO TECHNOLOGY	DSSS, OFDM
TRANSFER RATE	802.11b:11/5.5/2/1Mbps 802.11g: 54/48/36/24/18/12/9/6Mbps
FREQUENCY RANGE	2412MHz ~ 2462MHz
NUMBER OF CHANNEL	11
OUTPUT POWER	18dBm
ANTENNA TYPE	Chip & Inverted F antenna with 0dBi
DATA CABLE	NA
I/O PORTS	RJ45
ASSOCIATED DEVICES	NA

NOTE:

1. The following OEMs were provided to this EUT. They are identical to each other except for their model number and brand name due to marketing requirement.

ITEM	MODEL NO.	BRAND
1	Skyracer Travel AP 7054g	Topcom
2	WAP-0004	DDC
3	KLS-565	Kcorp
4	NMB-0406-G	Etherwan
5	EWB-0406-G	Etherwan
6	WL54G-AP	Lantech

2. The EUT was powered by following adapter.

MODEL :	JTA0402D-A
BRAND :	JENTEC
INPUT :	100~240Vac, 50~60Hz, 0.25A
OUTPUT :	5Vdc, 1.2A

3. The EUT operates in the 2.4GHz frequency spectrum with throughput of up to 54Mbps.
4. The EUT complies with IEEE 802.11g draft standards and backwards compatible with IEEE 802.11b products.
5. The above EUT information was declared by the manufacturer and for 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 to 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 1GHz, the channel 1, 6, and 11 were pre-tested in chamber. The channel 11, the worst case, was chosen for final test.
2. Above 1GHz, the channel 1, 6, and 11 were tested individually.
3. From our experience and technical viewpoint, we have chosen data rates 11Mbps for CCK technique and 6Mbps for OFDM technique, as the worst cases for the test among other data rates.
4. Two test results are presented in the following sections. The test results A is for CCK technique and the test results B is for OFDM technique.
5. The EUT was designed with three functions, therefore, three test modes were presented in the following sections, the mode 1 is for AP mode, the test mode 2 is for Router mode, and the test mode 3 is for Client mode.

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3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is an Wireless LAN Pocket AP. According to the specifications of the manufacturer, it must complies with the requirements of the following standards:

FCC Part 15, Subpart C. (15.247)
ANSI C63.4:2001

All test items 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 FCC 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.

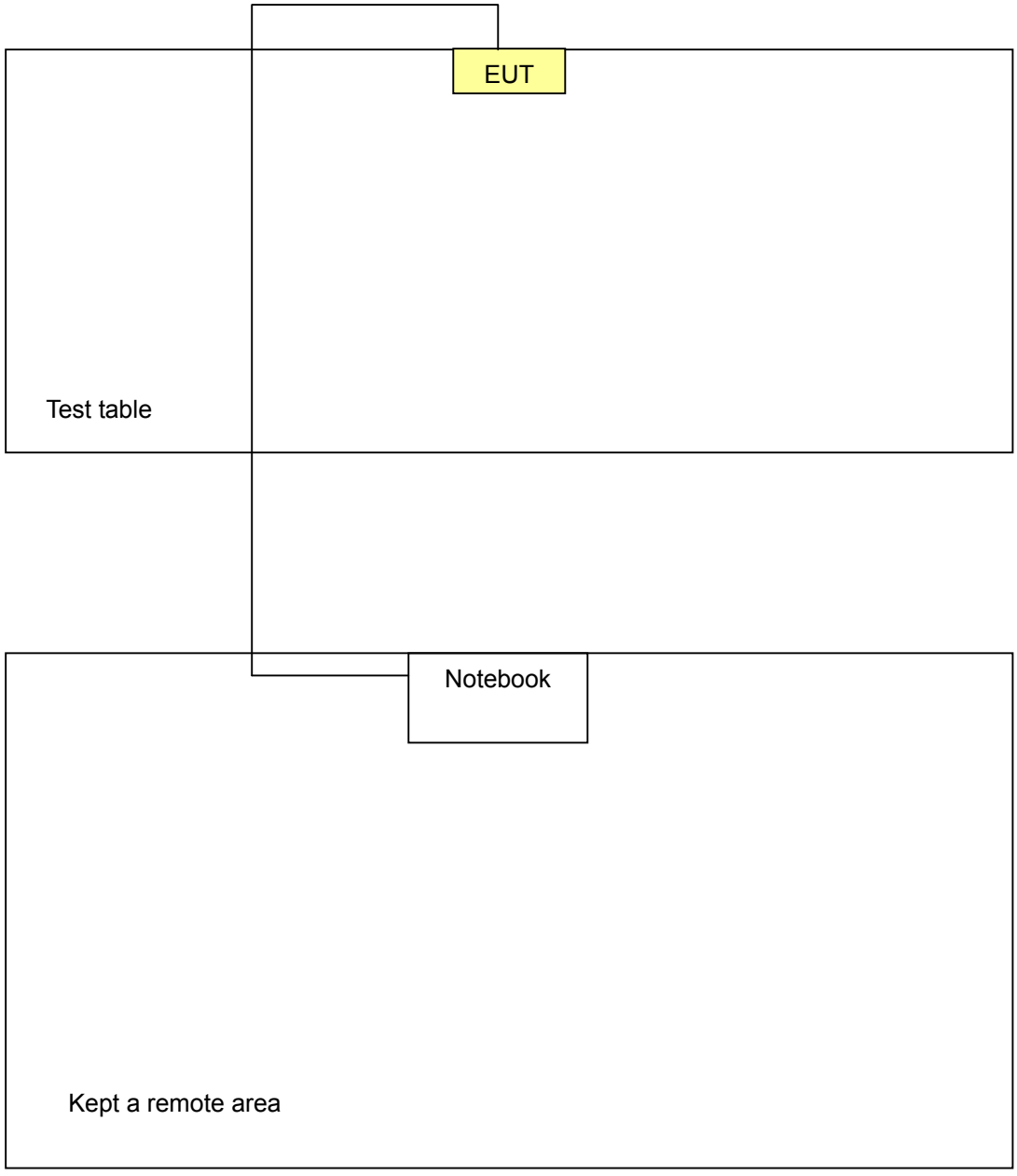
NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK COMPUTER	ASUS	M2400	2ANP028403 M2417PDV-846XEC	FCC DoC Approved

NOTE: All power cords of the above support units are non shielded (1.8m).

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	NA

NOTE:
1. All power cords of the above support units are non shielded (1.8m).
2. Item 1 act as a communication partner to transfer data.

3.5 CONFIGURATION OF SYSTEM UNDER TEST



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

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DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
Test Receiver ROHDE & SCHWARZ	ESCS30	100288	Dec. 11, 2004
RF signal cable Woken	5D-FB	Cable-HyC02-01	Mar. 07, 2005
LISN ROHDE & SCHWARZ	ESH2-Z5	100100	Mar. 10, 2005
LISN ROHDE & SCHWARZ	ESH3-Z5	100311	Mar. 04, 2005
Software ADT	ADT_Cond_V3	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 HwaYa Shielded Room 2.

3. The VCCI Site Registration No. is C-2047.

4.1.3 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.

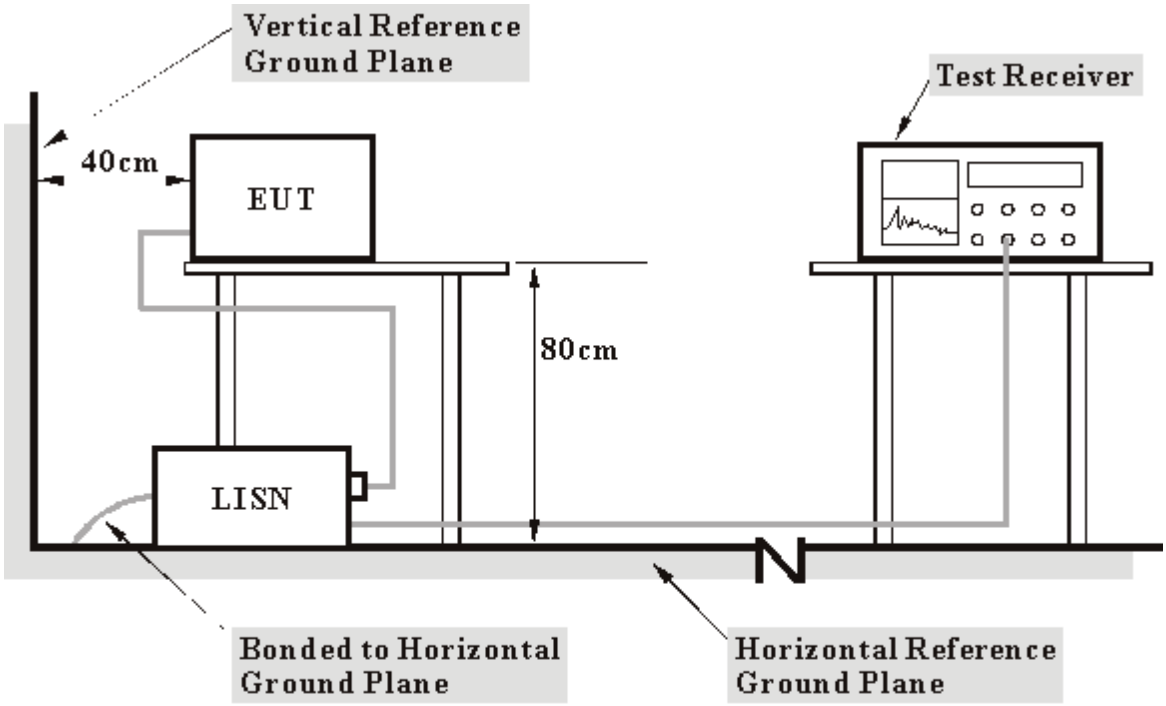
b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

c. The frequency range from 150 kHz to 30 MHz was searched. Emission levels (Limit –20dB) was not recorded.

4.1.4 DEVIATION FROM TEST STANDARD

No deviation

4.1.5 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.

4.1.6 EUT OPERATING CONDITIONS

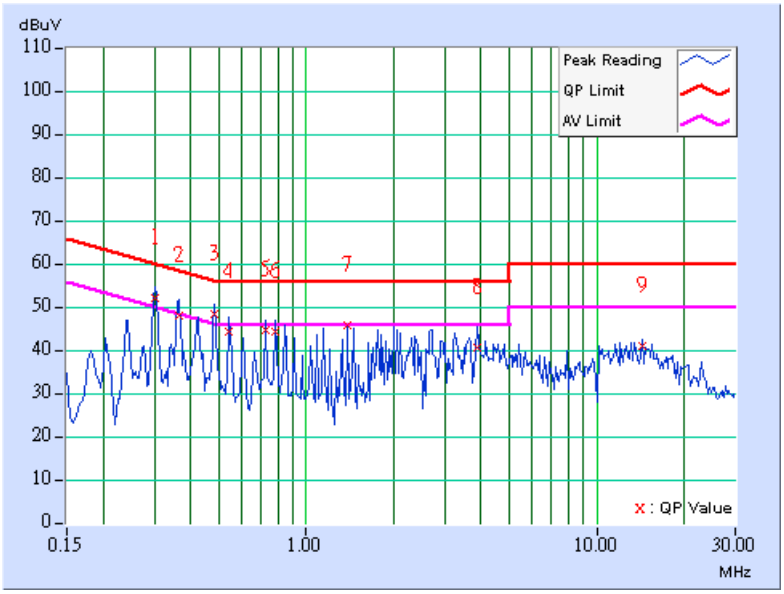
a. Placed the EUT on the testing table.
b. Prepared another notebook system to act as a communication partner and placed it outside of testing area.
c. The communication partner run a test program (provided by manufacturer) to enable EUT under transmission/receiving condition continuously at specific channel frequency via an RJ45 cable.
d. The communication partner sent data to EUT by command "PING".

4.1.7 TEST RESULTS

EUT	Wireless LAN Pocket AP	**MODEL**	WL AP 2454 NM1
MODE	Channel 1	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	**PHASE**	Line (L)
ENVIRONMENTAL CONDITIONS	24deg. C, 75%RH, 991hPa	**TESTED BY**: Benson Wei	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.302	0.11	51.57	45.54	51.68	45.65	60.18	50.18	-8.50	-4.53
2	0.363	0.11	47.65	-	47.76	-	58.65	48.65	-10.89	-
3	0.483	0.13	47.79	41.29	47.92	41.42	56.28	46.28	-8.36	-4.86
4	0.545	0.15	43.83	-	43.98	-	56.00	46.00	-12.02	-
5	0.726	0.19	44.17	-	44.36	-	56.00	46.00	-11.64	-
6	0.787	0.20	43.87	-	44.07	-	56.00	46.00	-11.93	-
7	1.392	0.25	45.38	-	45.63	-	56.00	46.00	-10.37	-
8	3.874	0.31	40.02	-	40.33	-	56.00	46.00	-15.67	-
9	14.319	0.68	40.46	-	41.14	-	60.00	50.00	-18.86	-

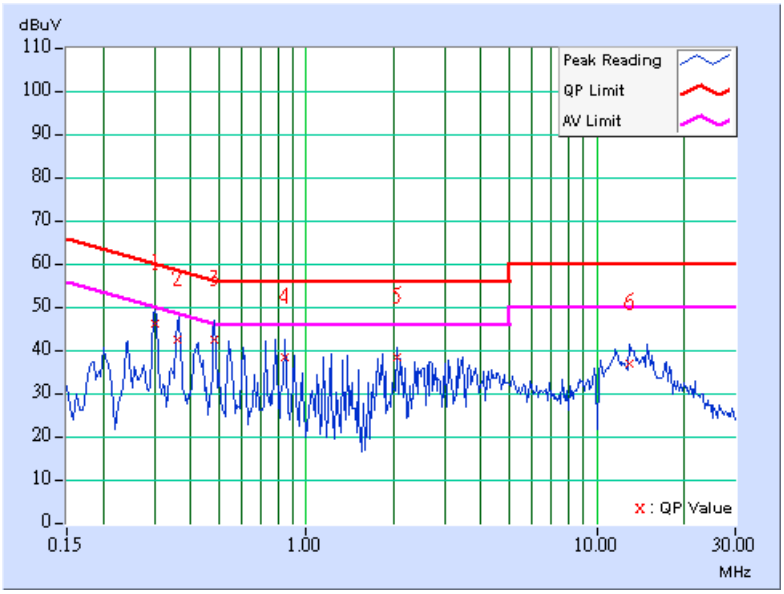
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.



EUT	Wireless LAN Pocket AP	**MODEL**	WL AP 2454 NM1
MODE	Channel 1	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	**PHASE**	Neutral (N)
ENVIRONMENTAL CONDITIONS	24deg. C, 75%RH, 991hPa	**TESTED BY**: Benson Wei	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.302	0.11	45.89	-	46.00	-	60.18	50.18	-14.18	-
2	0.362	0.11	42.18	-	42.29	-	58.68	48.68	-16.39	-
3	0.483	0.13	42.18	-	42.31	-	56.28	46.28	-13.97	-
4	0.847	0.20	37.92	-	38.12	-	56.00	46.00	-17.88	-
5	2.056	0.25	38.09	-	38.34	-	56.00	46.00	-17.66	-
6	12.947	0.53	36.57	-	37.10	-	60.00	50.00	-22.90	-

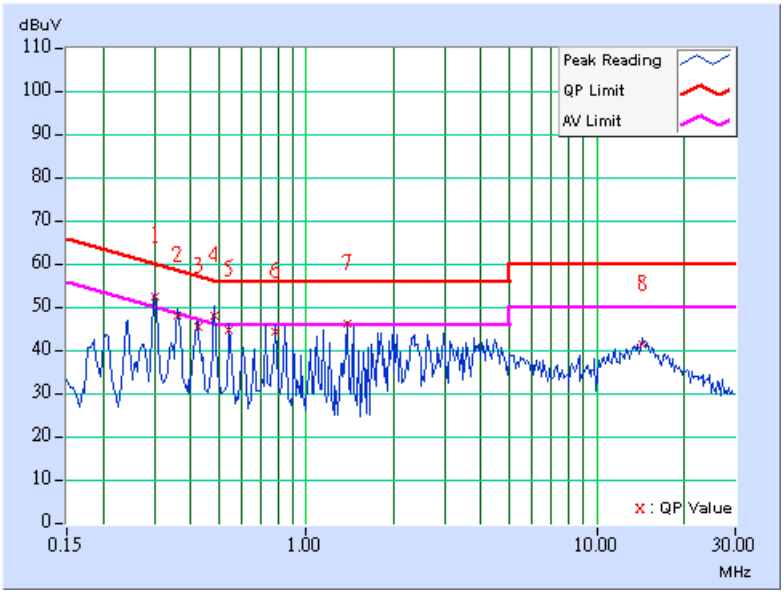
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.



EUT	Wireless LAN Pocket AP	MODEL	WL AP 2454 NM1
MODE	Channel 6	6dB BANDWIDTH	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	PHASE	Line (L)
ENVIRONMENTAL CONDITIONS	24deg. C, 75%RH, 991hPa	TESTED BY: Benson Wei	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.302	0.11	51.83	45.77	51.94	45.88	60.18	50.18	-8.24	-4.30
2	0.362	0.11	47.47	-	47.58	-	58.68	48.68	-11.10	-
3	0.423	0.12	44.96	-	45.08	-	57.38	47.38	-12.30	-
4	0.485	0.13	47.59	41.22	47.72	41.35	56.26	46.26	-8.54	-4.91
5	0.545	0.15	44.03	-	44.18	-	56.00	46.00	-11.82	-
6	0.787	0.20	43.95	-	44.15	-	56.00	46.00	-11.85	-
7	1.391	0.25	45.71	-	45.96	-	56.00	46.00	-10.04	-
8	14.319	0.68	40.97	-	41.65	-	60.00	50.00	-18.35	-

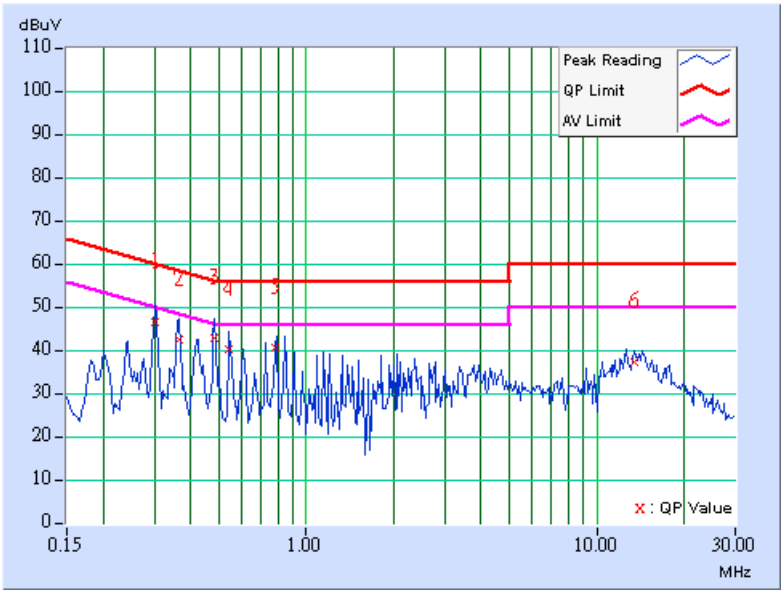
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.



EUT	Wireless LAN Pocket AP	**MODEL**	WL AP 2454 NM1
MODE	Channel 6	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	**PHASE**	Neutral (N)
ENVIRONMENTAL CONDITIONS	24deg. C, 75%RH, 991hPa	**TESTED BY**: Benson Wei	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.302	0.11	45.95	-	46.06	-	60.18	50.18	-14.12	-
2	0.364	0.11	41.87	-	41.98	-	58.65	48.65	-16.67	-
3	0.483	0.13	42.40	-	42.53	-	56.28	46.28	-13.75	-
4	0.545	0.14	39.70	-	39.84	-	56.00	46.00	-16.16	-
5	0.787	0.19	40.13	-	40.32	-	56.00	46.00	-15.68	-
6	13.496	0.54	37.05	-	37.59	-	60.00	50.00	-22.41	-

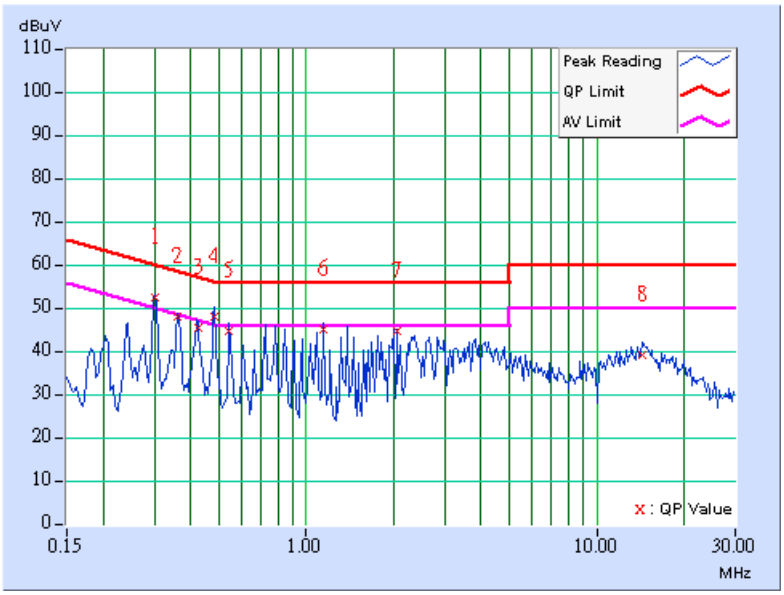
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.



EUT	Wireless LAN Pocket AP	MODEL	WL AP 2454 NM1
MODE	Channel 11	6dB BANDWIDTH	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	PHASE	Line (L)
ENVIRONMENTAL CONDITIONS	24deg. C, 75%RH, 991hPa	TESTED BY: Benson Wei	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	**0.302**	**0.11**	**51.89**	**45.82**	**52.00**	**45.93**	**60.18**	**50.18**	**-8.18**	**-4.25**
2	0.362	0.11	47.47	-	47.58	-	58.68	48.68	-11.10	-
3	0.423	0.12	45.00	-	45.12	-	57.38	47.38	-12.26	-
4	0.485	0.13	47.61	41.29	47.74	41.42	56.26	46.26	-8.52	-4.84
5	0.545	0.15	44.28	-	44.43	-	56.00	46.00	-11.57	-
6	1.148	0.25	44.61	-	44.86	-	56.00	46.00	-11.14	-
7	2.055	0.26	44.30	-	44.56	-	56.00	46.00	-11.44	-
8	14.382	0.68	38.69	-	39.37	-	60.00	50.00	-20.63	-

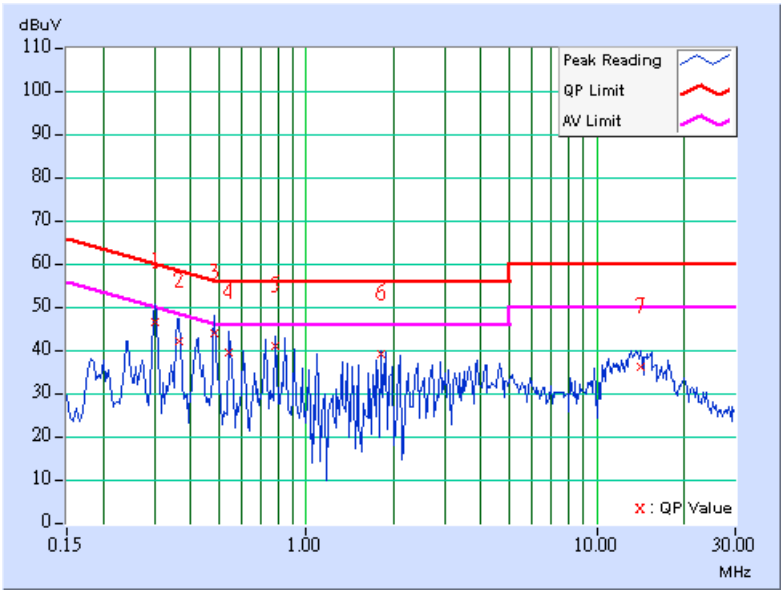
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.



EUT	Wireless LAN Pocket AP	**MODEL**	WL AP 2454 NM1
MODE	Channel 11	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	**PHASE**	Netural (N)
ENVIRONMENTAL CONDITIONS	24deg. C, 75%RH, 991hPa	**TESTED BY**: Benson Wei	

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.302	0.11	46.14	-	46.25	-	60.18	50.18	-13.93	-
2	0.363	0.11	41.83	-	41.94	-	58.65	48.65	-16.71	-
3	0.484	0.13	43.50	-	43.63	-	56.28	46.28	-12.65	-
4	0.545	0.14	39.15	-	39.29	-	56.00	46.00	-16.71	-
5	0.787	0.19	40.48	-	40.67	-	56.00	46.00	-15.33	-
6	1.815	0.25	38.81	-	39.06	-	56.00	46.00	-16.94	-
7	14.254	0.55	35.67	-	36.22	-	60.00	50.00	-23.78	-

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.



4.2 RADIATED EMISSION MEASUREMENT

4.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

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
Test Receiver ROHDE & SCHWARZ	ESIB7	100188	Jan. 13, 2005
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100039	Dec. 15, 2004
BILOG Antenna SCHWARZBECK	VULB9168	9168-157	Feb. 03, 2005
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-407	Feb. 03, 2005
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA 9170241	Feb. 23, 2005
Preamplifier Agilent	8449B	3008A01961	Jan. 22, 2005
Preamplifier Agilent	8447D	2944A10629	Jan. 14, 2005
RF signal cable HUBER+SUHNER	SUCOFLEX 104	218182/4	Mar. 04, 2005
RF signal cable HUBER+SUHNER	SUCOFLEX 104	218194/4	Mar. 04, 2005
Software ADT.	ADT_Radiated_V5.14	NA	NA
Antenna Tower ADT.	AT100	AT93021702	NA
Turn Table ADT.	TT100.	TT93021702	NA
Controller ADT.	SC100.	SC93021702	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 HwaYa Chamber 1.

3. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.

4. The IC Site Registration No. is IC4924-2.

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 3 meter semi-anchoic chamber. 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.

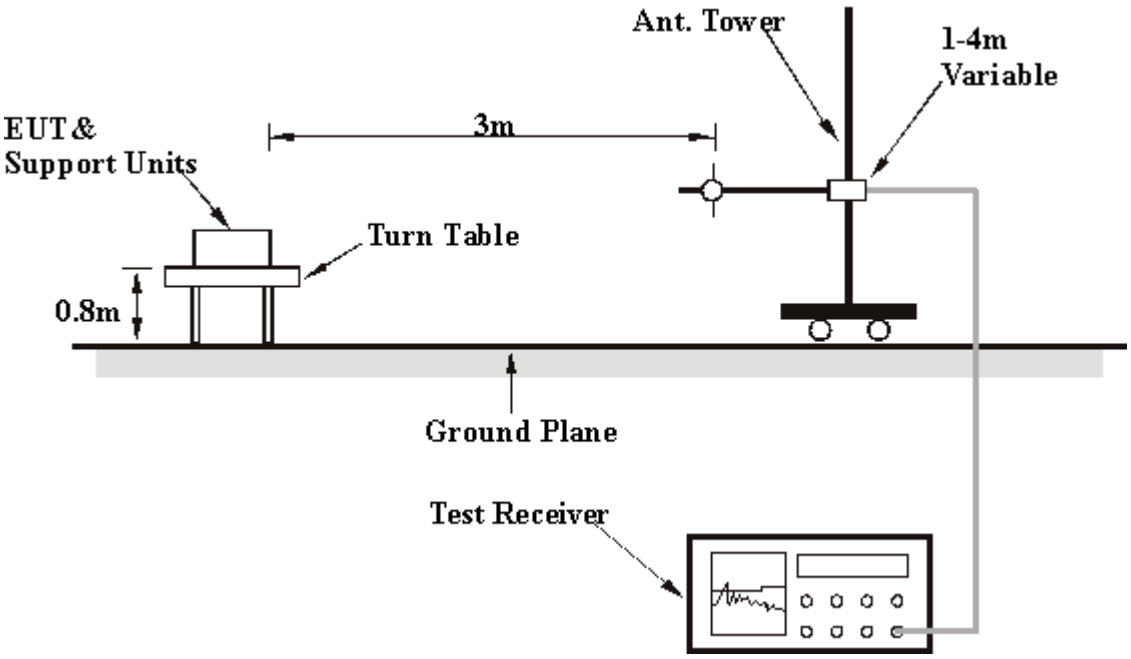
NOTE:

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 10 Hz for Average detection (AV) at frequency above 1GHz.

4.2.4 DEVIATION FROM TEST STANDARD

No deviation

4.2.5 TEST SETUP



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

4.2.6 EUT OPERATING CONDITIONS

Same as 4.1.6

4.2.7 TEST RESULTS

EUT	Wireless LAN Pocket AP	**MODEL**	WL AP 2454 NM1
TEST MODE	1 (AP Mode)	**FREQUENCY RANGE**	Below 1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	**DETECTOR FUNCTION**	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 60%RH, 991hPa	**TESTED BY**: Match Tsui	

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	61.10	27.07 QP	40.00	-12.93	1.25 H	139	13.48	13.59
2	160.24	33.00 QP	43.50	-10.50	1.50 H	118	18.14	14.87
3	232.16	28.80 QP	46.00	-17.20	1.25 H	226	16.21	12.59
4	321.58	30.54 QP	46.00	-15.46	1.00 H	241	15.55	15.00
5	480.98	35.99 QP	46.00	-10.01	2.00 H	250	17.51	18.48
6	640.38	34.48 QP	46.00	-11.52	1.25 H	223	12.93	21.55
7	801.72	37.82 QP	46.00	-8.18	1.00 H	226	13.98	23.83

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	47.49	36.35 QP	40.00	-3.65	1.00 V	244	21.34	15.00
2	**60.82**	**36.89 QP**	**40.00**	**-3.11**	**1.06 V**	**82**	**23.27**	**13.62**
3	101.92	32.82 QP	43.50	-10.68	1.25 V	253	21.64	11.18
4	111.64	32.13 QP	43.50	-11.37	1.00 V	22	19.95	12.17
5	160.24	41.42 QP	43.50	-2.08	1.00 V	127	26.55	14.87
6	234.11	32.99 QP	46.00	-13.01	1.00 V	88	20.28	12.71
7	319.64	30.81 QP	46.00	-15.19	1.25 V	100	15.86	14.95
8	480.98	36.99 QP	46.00	-9.01	1.00 V	133	18.51	18.48
9	640.38	34.59 QP	46.00	-11.41	1.00 V	283	13.04	21.55
10	801.72	37.65 QP	46.00	-8.35	1.00 V	154	13.81	23.83

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + CorrectionFactor(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	Wireless LAN Pocket AP	MODEL	WL AP 2454 NM1
TEST MODE	2 (Router Mode)	FREQUENCY RANGE	Below 1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 62%RH, 991hPa	TESTED BY: Match Tsui	

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	51.38	21.92 QP	40.00	-18.08	1.50 H	271	7.36	14.56
2	160.24	26.88 QP	43.50	-16.62	1.75 H	238	12.01	14.87
3	249.66	26.55 QP	46.00	-19.45	1.25 H	13	13.34	13.22
4	319.64	33.24 QP	46.00	-12.76	1.00 H	265	18.29	14.95
5	374.07	28.86 QP	46.00	-17.14	1.00 H	238	12.68	16.18
6	399.34	28.01 QP	46.00	-17.99	1.75 H	265	11.27	16.74
7	479.04	37.70 QP	46.00	-8.30	2.00 H	271	19.25	18.45
8	500.42	38.51 QP	46.00	-7.49	1.75 H	253	19.77	18.74
9	519.86	30.57 QP	46.00	-15.43	1.50 H	259	11.46	19.11
10	599.56	33.90 QP	46.00	-12.10	1.50 H	37	12.90	21.00
11	640.38	31.98 QP	46.00	-14.02	1.25 H	307	10.43	21.55
12	700.64	31.41 QP	46.00	-14.59	1.00 H	265	9.10	22.32
13	768.68	29.81 QP	46.00	-16.19	1.50 H	319	6.17	23.64
14	799.78	32.95 QP	46.00	-13.05	1.00 H	1	9.14	23.82
15	961.12	31.53 QP	54.00	-22.47	1.50 H	262	5.85	25.68

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
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	Wireless LAN Pocket AP	MODEL	WL AP 2454 NM1
TEST MODE	2 (Router Mode)	FREQUENCY RANGE	Below 1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 62%RH, 991hPa	**TESTED BY**: Match Tsui	

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	53.33	34.97 QP	40.00	-5.03	1.00 V	82	20.59	14.37
2	66.93	36.71 QP	40.00	-3.29	1.00 V	109	23.79	12.93
3	101.92	34.73 QP	43.50	-8.77	1.00 V	268	23.55	11.18
4	133.03	39.12 QP	43.50	-4.38	1.25 V	292	25.18	13.94
5	160.24	39.37 QP	43.50	-4.13	1.00 V	319	24.51	14.87
6	249.66	36.19 QP	46.00	-9.81	1.25 V	301	22.98	13.22
7	319.64	28.74 QP	46.00	-17.26	1.50 V	109	13.79	14.95
8	374.07	30.55 QP	46.00	-15.45	1.00 V	352	14.37	16.18
9	399.34	30.59 QP	46.00	-15.41	1.50 V	106	13.85	16.74
10	465.43	32.13 QP	46.00	-13.87	1.00 V	274	13.86	18.27
11	479.04	39.45 QP	46.00	-6.55	1.00 V	322	21.00	18.45
12	500.42	39.54 QP	46.00	-6.46	1.00 V	286	20.80	18.74
13	599.56	32.78 QP	46.00	-13.22	1.00 V	58	11.79	21.00
14	667.60	31.41 QP	46.00	-14.59	1.50 V	7	9.51	21.90
15	799.78	34.76 QP	46.00	-11.24	1.25 V	325	10.94	23.82
16	961.12	33.71 QP	54.00	-20.29	1.50 V	322	8.03	25.68

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
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	Wireless LAN Pocket AP	**MODEL**	WL AP 2454 NM1
TEST MODE	3 (Client Mode)	**FREQUENCY RANGE**	Below 1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	**DETECTOR FUNCTION**	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 62%RH, 991hPa	**TESTED BY**: Match Tsui	

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	66.93	21.91 QP	40.00	-18.09	2.50 H	214	8.98	12.93
2	133.03	29.49 QP	43.50	-14.01	1.75 H	268	15.55	13.94
3	160.24	26.23 QP	43.50	-17.27	1.00 H	232	11.36	14.87
4	212.73	35.33 QP	43.50	-8.17	1.50 H	46	23.66	11.67
5	236.05	31.67 QP	46.00	-14.33	2.50 H	88	18.83	12.83
6	319.64	33.48 QP	46.00	-12.52	1.00 H	241	18.53	14.95
7	383.79	28.48 QP	46.00	-17.52	2.50 H	319	12.08	16.39
8	399.34	28.55 QP	46.00	-17.45	2.50 H	253	11.81	16.74
9	479.04	39.01 QP	46.00	-6.99	2.00 H	28	20.56	18.45
10	500.42	37.96 QP	46.00	-8.04	1.75 H	250	19.23	18.74
11	533.47	28.70 QP	46.00	-17.30	1.50 H	229	9.32	19.37
12	599.56	31.95 QP	46.00	-14.05	1.50 H	52	10.95	21.00
13	640.38	31.95 QP	46.00	-14.05	1.00 H	337	10.40	21.55
14	700.64	31.44 QP	46.00	-14.56	1.25 H	286	9.12	22.32
15	799.78	33.10 QP	46.00	-12.90	1.00 H	16	9.28	23.82
16	961.12	31.37 QP	54.00	-22.63	1.50 H	262	5.70	25.68

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
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	Wireless LAN Pocket AP	**MODEL**	WL AP 2454 NM1
TEST MODE	3 (Client Mode)	**FREQUENCY RANGE**	Below 1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	**DETECTOR FUNCTION**	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 62%RH, 991hPa	**TESTED BY**: Match Tsui	

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	47.49	31.69 QP	40.00	-8.31	1.00 V	106	16.69	15.00
2	66.93	36.48 QP	40.00	-3.52	1.00 V	139	23.56	12.93
3	101.92	35.15 QP	43.50	-8.35	1.00 V	286	23.98	11.18
4	142.75	34.08 QP	43.50	-9.42	1.00 V	4	19.60	14.48
5	160.24	39.90 QP	43.50	-3.60	1.00 V	325	25.04	14.87
6	249.66	36.50 QP	46.00	-9.50	1.00 V	310	23.28	13.22
7	374.07	29.50 QP	46.00	-16.50	1.00 V	328	13.32	16.18
8	399.34	31.38 QP	46.00	-14.62	1.25 V	100	14.65	16.74
9	479.04	38.41 QP	46.00	-7.59	1.00 V	319	19.95	18.45
10	500.42	38.53 QP	46.00	-7.47	1.00 V	331	19.79	18.74
11	533.47	31.45 QP	46.00	-14.55	1.00 V	346	12.08	19.37
12	599.56	32.38 QP	46.00	-13.62	1.00 V	55	11.38	21.00
13	665.65	33.45 QP	46.00	-12.55	1.00 V	127	11.58	21.87
14	768.68	31.90 QP	46.00	-14.10	1.25 V	16	8.26	23.64
15	799.78	34.72 QP	46.00	-11.28	1.00 V	304	10.90	23.82
16	961.12	33.26 QP	54.00	-20.74	1.00 V	331	7.58	25.68

REMARKS:
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
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.

4.2.8 TEST RESULTS

EUT	Wireless LAN Pocket AP	**MODEL**	WL AP 2454 NM1
MODE	Channel 1	**FREQUENCY RANGE**	1~25 GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 62%RH, 991hPa	**TEST MODE**	CCK
		TESTED BY: Match Tsui	

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	1280.00	44.32 PK	74.00	-29.68	1.13 H	206	16.57	27.75
1	1280.00	38.97 AV	54.00	-15.03	1.13 H	206	11.22	27.75
2	1600.00	48.32 PK	74.00	-25.68	1.23 H	178	20.59	27.73
2	1600.00	44.27 AV	54.00	-9.73	1.23 H	178	16.54	27.73
3	2038.00	65.04 PK	74.00	-8.96	1.24 H	160	35.75	29.29
4	2354.00	56.03 PK	74.00	-17.97	1.04 H	168	25.39	30.64
4	2354.00	47.60 AV	54.00	-6.40	1.04 H	168	16.96	30.64
5	2390.00	51.09 PK	74.00	-22.91	1.01 H	172	20.30	30.79
5	2390.00	43.06 AV	54.00	-10.94	1.01 H	172	12.27	30.79
6	*2412.00	110.09 PK			1.01 H	172	79.21	30.88
6	*2412.00	102.06 AV			1.01 H	172	71.18	30.88
7	4824.00	49.33 PK	74.00	-24.67	1.00 H	89	12.88	36.45
7	4824.00	35.98 AV	54.00	-18.02	1.00 H	89	-0.47	36.45

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. " * " : Fundamental frequency

EUT	Wireless LAN Pocket AP	**MODEL**	WL AP 2454 NM1
MODE	Channel 1	**FREQUENCY RANGE**	1~25 GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 62%RH, 991hPa	**TEST MODE**	CCK
		TESTED BY: Match Tsui	

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	1280.00	45.72 PK	74.00	-28.28	1.17 V	137	17.97	27.75
1	1280.00	40.19 AV	54.00	-13.81	1.17 V	137	12.44	27.75
2	1600.00	45.62 PK	74.00	-28.38	1.00 V	108	17.89	27.73
2	1600.00	41.19 AV	54.00	-12.81	1.00 V	108	13.46	27.73
3	2038.00	57.43 PK	74.00	-16.57	1.24 V	140	28.14	29.29
4	2390.00	45.67 PK	74.00	-28.33	1.01 V	140	14.88	30.79
4	2390.00	37.62 AV	54.00	-16.38	1.01 V	140	6.83	30.79
5	*2412.00	104.67 PK			1.01 V	140	73.79	30.88
5	*2412.00	96.62 AV			1.01 V	140	65.74	30.88
6	4824.00	50.54 PK	74.00	-23.46	1.17 V	180	14.09	36.45
6	4824.00	37.35	54.00	-16.65	1.17 V	180	0.9	36.45

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. " * " : Fundamental frequency

EUT	Wireless LAN Pocket AP	**MODEL**	WL AP 2454 NM1
MODE	Channel 6	**FREQUENCY RANGE**	1~25 GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 67%RH, 991hPa	**TEST MODE**	CCK
		TESTED BY: Match Tsui	

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	1600.00	49.04 PK	74.00	-24.96	1.22 H	1	21.31	27.73
1	1600.00	45.78 AV	54.00	-8.22	1.22 H	1	18.05	27.73
2	2063.00	61.27 PK	74.00	-12.73	1.23 H	338	31.91	29.36
3	2222.00	53.18 PK	74.00	-20.82	1.13 H	352	23.19	29.99
3	2222.00	47.69 AV	54.00	-6.31	1.13 H	352	17.70	29.99
4	*2437.00	108.11 PK			1.26 H	346	77.13	30.98
4	*2437.00	99.20 AV			1.26 H	346	68.22	30.98
5	2662.00	53.91 PK	74.00	-20.09	1.13 H	350	22.35	31.56
5	2662.00	47.73 AV	54.00	-6.27	1.13 H	350	16.17	31.56
6	4874.00	52.25 PK	74.00	-21.75	1.21 H	5	15.64	36.61
6	4874.00	38.64 AV	54.00	-15.36	1.21 H	5	2.03	36.61

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	1600.00	46.51 PK	74.00	-27.49	1.00 V	1	18.78	27.73
1	1600.00	42.22 AV	54.00	-11.78	1.00 V	1	14.49	27.73
2	2063.00	59.06 PK	74.00	-14.94	1.52 V	274	29.70	29.36
3	2222.00	45.56 PK	74.00	-28.44	1.51 V	103	15.57	29.99
3	2222.00	38.68 AV	54.00	-15.32	1.51 V	103	8.69	29.99
4	*2437.00	104.29 PK			1.19 V	273	73.31	30.98
4	*2437.00	96.19 AV			1.19 V	273	65.21	30.98
5	2662.00	51.34 PK	74.00	-22.66	1.08 V	294	19.78	31.56
5	2662.00	44.80 AV	54.00	-9.20	1.08 V	294	13.24	31.56
6	4874.00	52.76 PK	74.00	-21.24	1.06 V	335	16.15	36.61
6	4874.00	40.35 AV	54.00	-13.65	1.06 V	335	3.74	36.61
7	7311.00	58.54 PK	74.00	-15.46	1.06 V	302	15.25	43.29
7	7311.00	46.40 AV	54.00	-7.60	1.06 V	302	3.11	43.29

REARKS:

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. " * " : Fundamental frequency

EUT	Wireless LAN Pocket AP	**MODEL**	WL AP 2454 NM1
MODE	Channel 11	**FREQUENCY RANGE**	1~25 GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 62%RH, 991hPa	**TEST MODE**	CCK
		TESTED BY: Match Tsui	

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	1600.00	50.39 PK	74.00	-23.61	1.25 H	185	22.66	27.73
1	1600.00	46.90 AV	54.00	-7.10	1.25 H	185	19.17	27.73
2	2088.00	67.01 PK	74.00	-6.99	1.22 H	175	37.59	29.42
3	2354.00	50.60 PK	74.00	-23.40	1.22 H	168	19.96	30.64
3	2354.00	43.67 AV	54.00	-10.33	1.22 H	168	13.03	30.64
4	*2462.00	111.35 PK			1.00 H	173	80.27	31.08
4	*2462.00	103.34 AV			1.00 H	173	72.26	31.08
5	2500.00	56.72 PK	74.00	-17.28	1.00 H	173	25.48	31.24
5	2500.00	48.71 AV	54.00	-5.29	1.00 H	173	17.47	31.24
6	4924.00	48.66 PK	74.00	-25.34	1.20 H	96	11.86	36.80
6	4924.00	35.45 AV	54.00	-18.55	1.20 H	96	-1.35	36.80

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	1600.00	47.38 PK	74.00	-26.62	1.28 V	140	19.65	27.73
1	1600.00	43.72 AV	54.00	-10.28	1.28 V	140	15.99	27.73
2	2088.00	58.67 PK	74.00	-15.33	1.18 V	153	29.25	29.42
3	*2462.00	103.87 PK			1.00 V	147	72.79	31.08
3	*2462.00	95.91 AV			1.00 V	147	64.83	31.08
4	2500.00	49.24 PK	74.00	-24.76	1.00 V	147	18.00	31.24
4	2500.00	41.28 AV	54.00	-12.72	1.00 V	147	10.04	31.24
5	4924.00	51.33 PK	74.00	-22.67	1.26 V	180	14.53	36.80
5	4924.00	37.58 AV	54.00	-16.42	1.26 V	180	0.78	36.80

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. " * " : Fundamental frequency

EUT	Wireless LAN Pocket AP	**MODEL**	WL AP 2454 NM1
MODE	Channel 1	**FREQUENCY RANGE**	1~25 GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 62%RH, 991hPa	**TEST MODE**	OFDM
		TESTED BY: Match Tsui	

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	1600.00	47.68 PK	74.00	-26.32	1.00 H	266	19.95	27.73
1	1600.00	43.44 AV	54.00	-10.56	1.00 H	266	15.71	27.73
2	2038.00	65.77 PK	74.00	-8.23	1.00 H	169	36.48	29.29
3	2354.00	57.68 PK	74.00	-16.32	1.04 H	165	27.04	30.64
3	2354.00	47.08 AV	54.00	-6.92	1.04 H	165	16.44	30.64
4	2390.00	55.84 PK	74.00	-18.16	1.02 H	171	25.05	30.79
4	2390.00	46.35 AV	54.00	-7.65	1.02 H	171	15.56	30.79
5	*2412.00	105.54 PK			1.02 H	171	74.66	30.88
5	*2412.00	96.05 AV			1.02 H	171	65.17	30.88
6	4824.00	47.82 PK	74.00	-26.18	1.27 H	217	11.37	36.45
6	4824.00	34.90 AV	54.00	-19.10	1.27 H	217	-1.55	36.45

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	1600.00	45.55 PK	74.00	-28.45	1.29 V	110	17.82	27.73
1	1600.00	41.67 AV	54.00	-12.33	1.29 V	110	13.94	27.73
2	2038.00	58.96 PK	74.00	-15.04	1.25 V	124	29.67	29.29
3	2390.00	49.28 PK	74.00	-24.72	1.03 V	141	18.49	30.79
3	2390.00	39.87 AV	54.00	-14.13	1.03 V	141	9.08	30.79
4	*2412.00	98.98 PK			1.03 V	141	68.10	30.88
4	*2412.00	89.57 AV			1.03 V	141	58.69	30.88
5	4824.00	47.08 PK	74.00	-26.92	1.05 V	178	10.63	36.45
5	4824.00	34.67 AV	54.00	-19.33	1.05 V	178	-1.78	36.45

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. " * " : Fundamental frequency

EUT	Wireless LAN Pocket AP	**MODEL**	WL AP 2454 NM1
MODE	Channel 6	**FREQUENCY RANGE**	1~25 GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 67%RH, 991hPa	**TEST MODE**	OFDM
		TESTED BY: Match Tsui	

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	1600.00	49.47 PK	74.00	-24.53	1.20 H	5	21.74	27.73
1	1600.00	45.26 AV	54.00	-8.74	1.20 H	5	17.53	27.73
2	2063.00	62.06 PK	74.00	-11.94	1.24 H	345	32.70	29.36
3	2354.00	52.42 PK	74.00	-21.58	1.30 H	341	21.78	30.64
3	2354.00	44.84 AV	54.00	-9.16	1.30 H	341	14.20	30.64
4	*2437.00	102.85 PK			1.25 H	347	71.87	30.98
4	*2437.00	93.38 AV			1.25 H	347	62.40	30.98
5	2662.00	50.22 PK	74.00	-23.78	1.21 H	39	18.66	31.56
5	2662.00	43.97 AV	54.00	-10.03	1.21 H	39	12.41	31.56
6	4874.00	49.27 PK	74.00	-24.73	1.25 H	22	12.66	36.61
6	4874.00	35.37 AV	54.00	-18.63	1.25 H	22	-1.24	36.61

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	1600.00	48.26 PK	74.00	-25.74	1.30 V	312	20.53	27.73
1	1600.00	44.16 AV	54.00	-9.84	1.30 V	312	16.43	27.73
2	2063.00	59.32 PK	74.00	-14.68	1.22 V	319	29.96	29.36
3	2354.00	49.28 PK	74.00	-24.72	1.21 V	18	18.64	30.64
3	2354.00	41.32 AV	54.00	-12.68	1.21 V	18	10.68	30.64
4	*2437.00	98.68 PK			1.19 V	272	67.70	30.98
4	*2437.00	89.32 AV			1.19 V	272	58.34	30.98
5	2662.00	49.37 PK	74.00	-24.63	1.16 V	114	17.81	31.56
5	2662.00	42.43 AV	54.00	-11.57	1.16 V	114	10.87	31.56
6	4874.00	48.92 PK	74.00	-25.08	1.22 V	332	12.31	36.61
6	4874.00	35.45 AV	54.00	-18.55	1.22 V	332	-1.16	36.61

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. " * " : Fundamental frequency

EUT	Wireless LAN Pocket AP	MODEL	WL AP 2454 NM1
MODE	Channel 11	FREQUENCY RANGE	1~25 GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 62%RH, 991hPa	TEST MODE	OFDM
		TESTED BY: Match Tsui	

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	1600.00	51.36 PK	74.00	-22.64	1.22 H	184	23.63	27.73
1	1600.00	48.08 AV	54.00	-5.92	1.22 H	184	20.35	27.73
2	2088.00	67.43 PK	74.00	-6.57	1.21 H	176	38.01	29.42
3	2354.00	57.81 PK	74.00	-16.19	1.23 H	151	27.17	30.64
3	2354.00	50.75 AV	54.00	-3.25	1.23 H	151	20.11	30.64
4	*2462.00	105.20 PK			1.00 H	177	74.12	31.08
4	*2462.00	96.07 AV			1.00 H	177	64.99	31.08
5	2484.00	57.24 PK	74.00	-16.76	1.00 H	177	26.07	31.17
5	2484.00	48.11 AV	54.00	-5.89	1.00 H	177	16.94	31.17
6	4924.00	48.69 PK	74.00	-25.31	1.19 H	100	11.89	36.80
6	4924.00	3.88 AV	54.00	-18.12	1.19 H	100	-.092	36.80

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	1600.00	47.60 PK	74.00	-26.40	1.28 V	133	19.87	27.73
1	1600.00	43.92 AV	54.00	-10.08	1.28 V	133	16.19	27.73
2	2088.00	61.68 PK	74.00	-12.32	1.18 V	136	32.26	29.42
3	*2462.00	99.65 PK			1.00 V	151	68.57	31.08
3	*2462.00	90.30 AV			1.00 V	151	59.22	31.08
4	2484.00	51.69 PK	74.00	-22.31	1.00 V	151	20.52	31.17
4	2484.00	42.34 AV	54.00	-11.66	1.00 V	151	11.17	31.17
5	4924.00	47.90 PK	74.00	-26.10	1.31 V	328	11.10	36.80
5	4924.00	34.82 AV	54.00	-19.18	1.31 V	328	-1.98	36.80

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. " * " : Fundamental frequency

4.3 6dB BANDWIDTH MEASUREMENT

4.3.1 LIMITS OF 6dB BANDWIDTH MEASUREMENT

The minimum of 6dB Bandwidth Measurement is 0.5MHz.

4.3.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
SPECTRUM ANALYZER	FSEK30	100049	Aug. 12, 2004

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

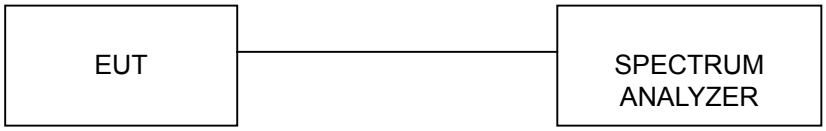
4.3.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 100kHz RBW and 100kHz VBW. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

4.3.4 DEVIATION FROM TEST STANDARD

No deviation

4.3.5 TEST SETUP



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

4.3.6 EUT OPERATING CONDITIONS

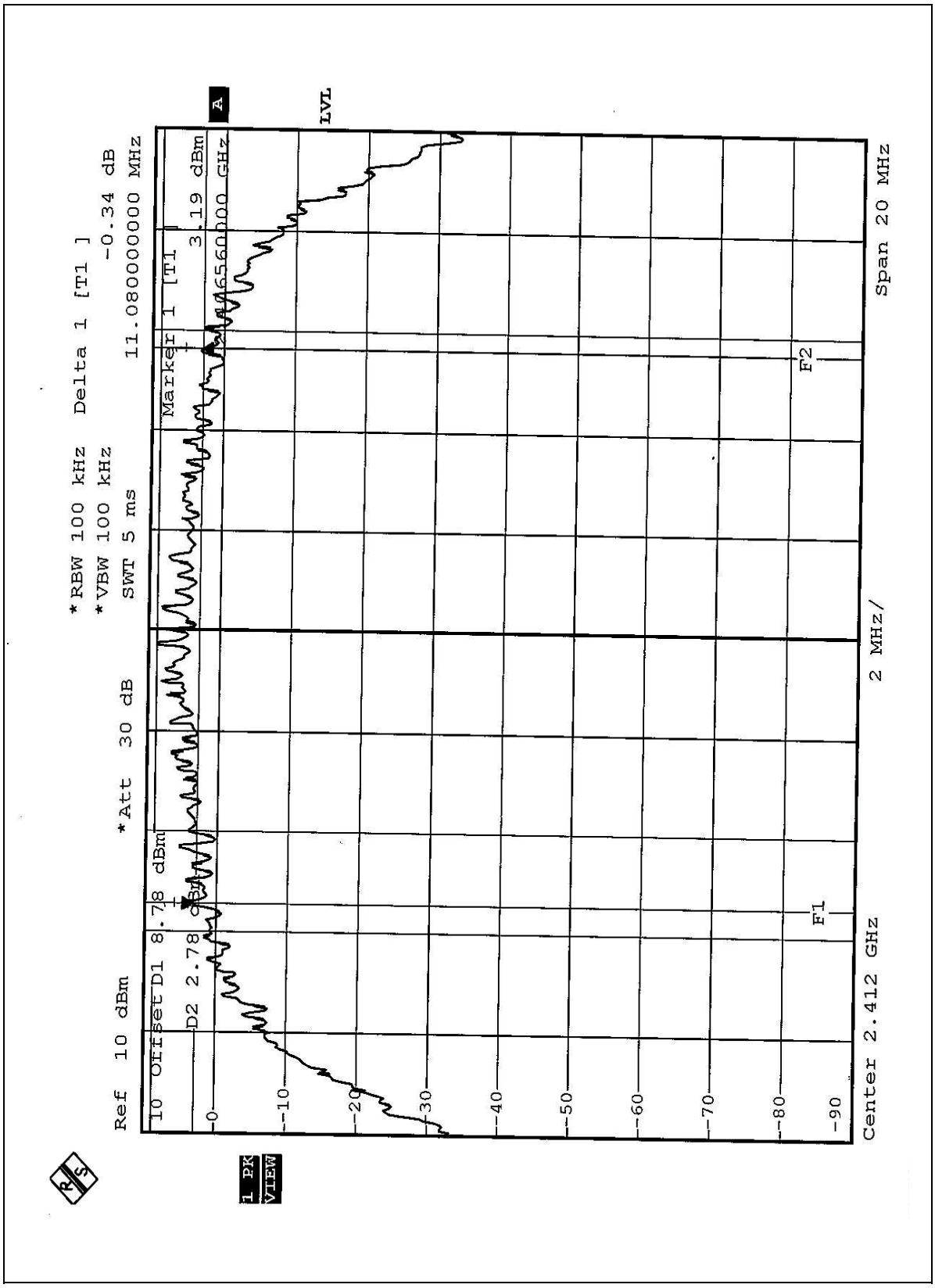
The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.3.7 TEST RESULTS (A)

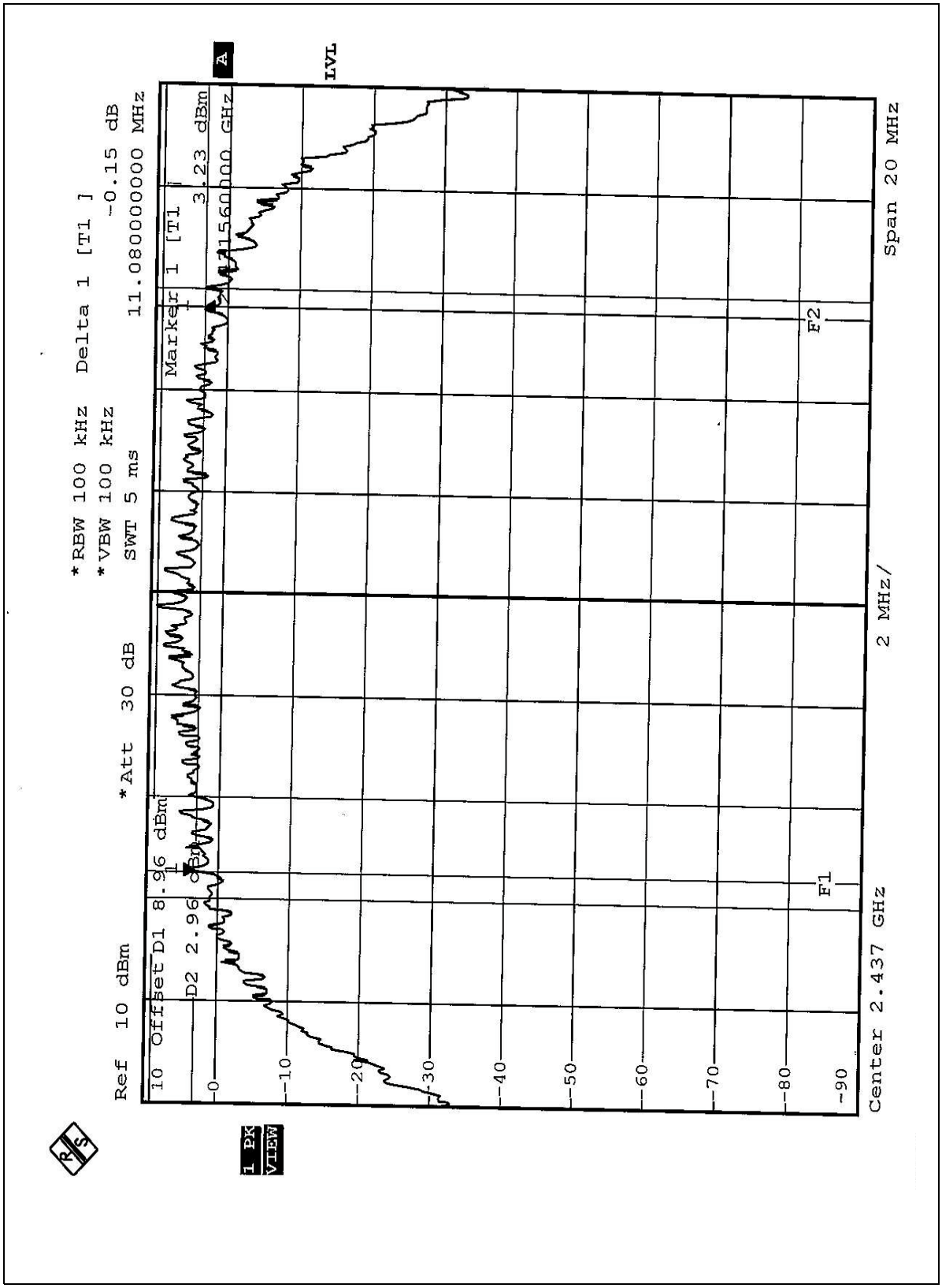
EUT	Wireless LAN Pocket AP	**MODEL**	WL AP 2454 NM1
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	25deg. C, 64%RH, 991hPa
TESTED BY: Steven Lu			

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS/FAIL
1	2412	11.08	0.5	PASS
6	2437	11.08	0.5	PASS
11	2462	11.04	0.5	PASS

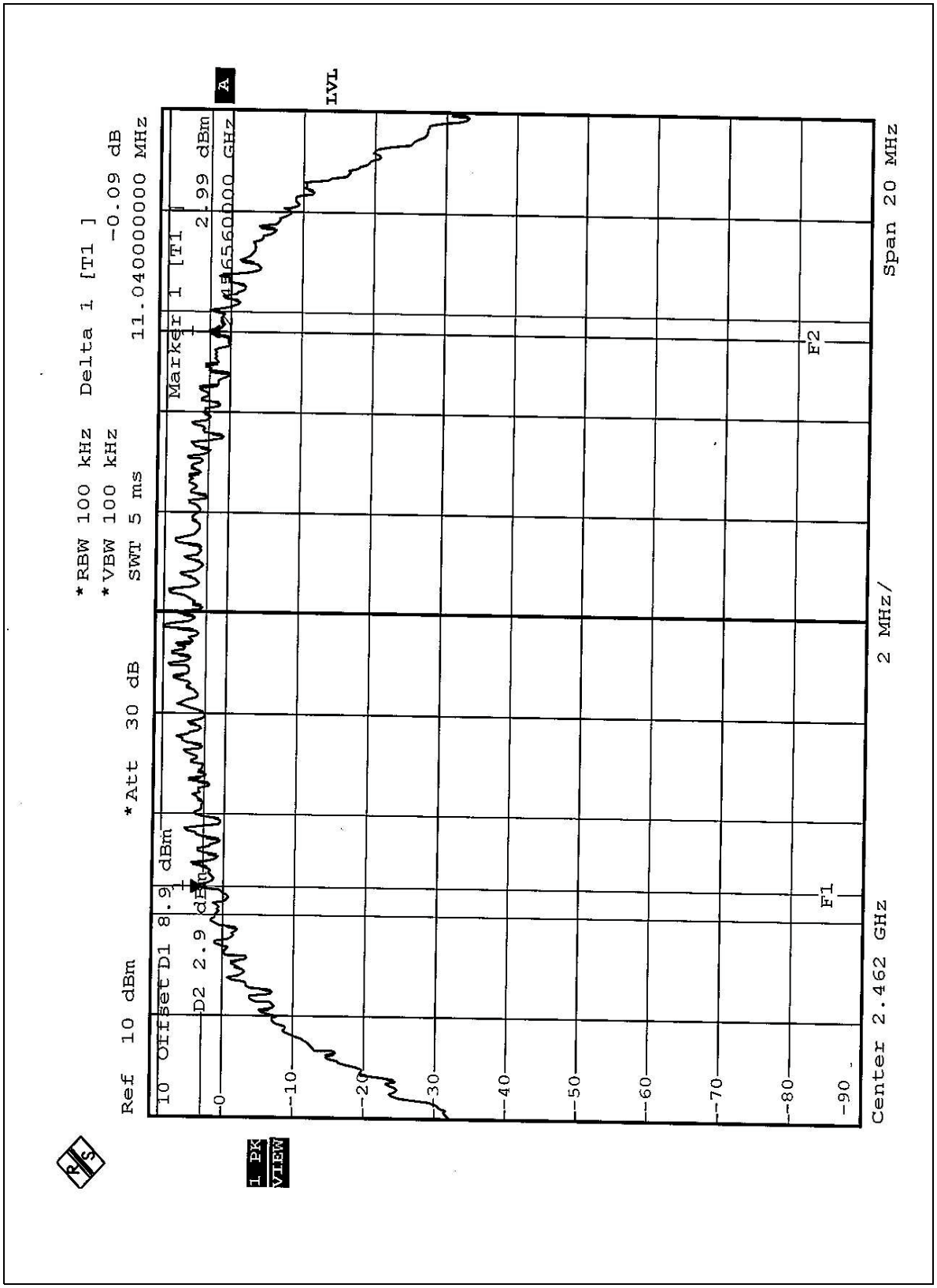
CH1


Ref 10 dBm
Offset 10
D1 8.78 dBm
D2 2.78 dBm
*Att 30 dB
*RBW 100 kHz
*VBW 100 kHz
SWT 5 ms
Delta 1 [T1]
-0.34 dB
11.080000000 MHz
Marker 1 [T1]
3.19 dBm
2.4165600000 GHz
LVL
A
F1
F2
Center 2.412 GHz
2 MHz/
Span 20 MHz
1 PK
VIEW

CH6


Ref 10 dBm
Offset 10
D1 8.96 dBm
D2 2.96 dBm
*Att 30 dB
*RBW 100 kHz
*VBW 100 kHz
SWT 5 ms
Delta 1 [T1]
-0.15 dB
11.080000000 MHz
Marker 1 [T1]
3.23 dBm
2.41560000 GHz
LVL
Center 2.437 GHz
2 MHz/
Span 20 MHz
F1
F2
1 PK
VIEW

CH11

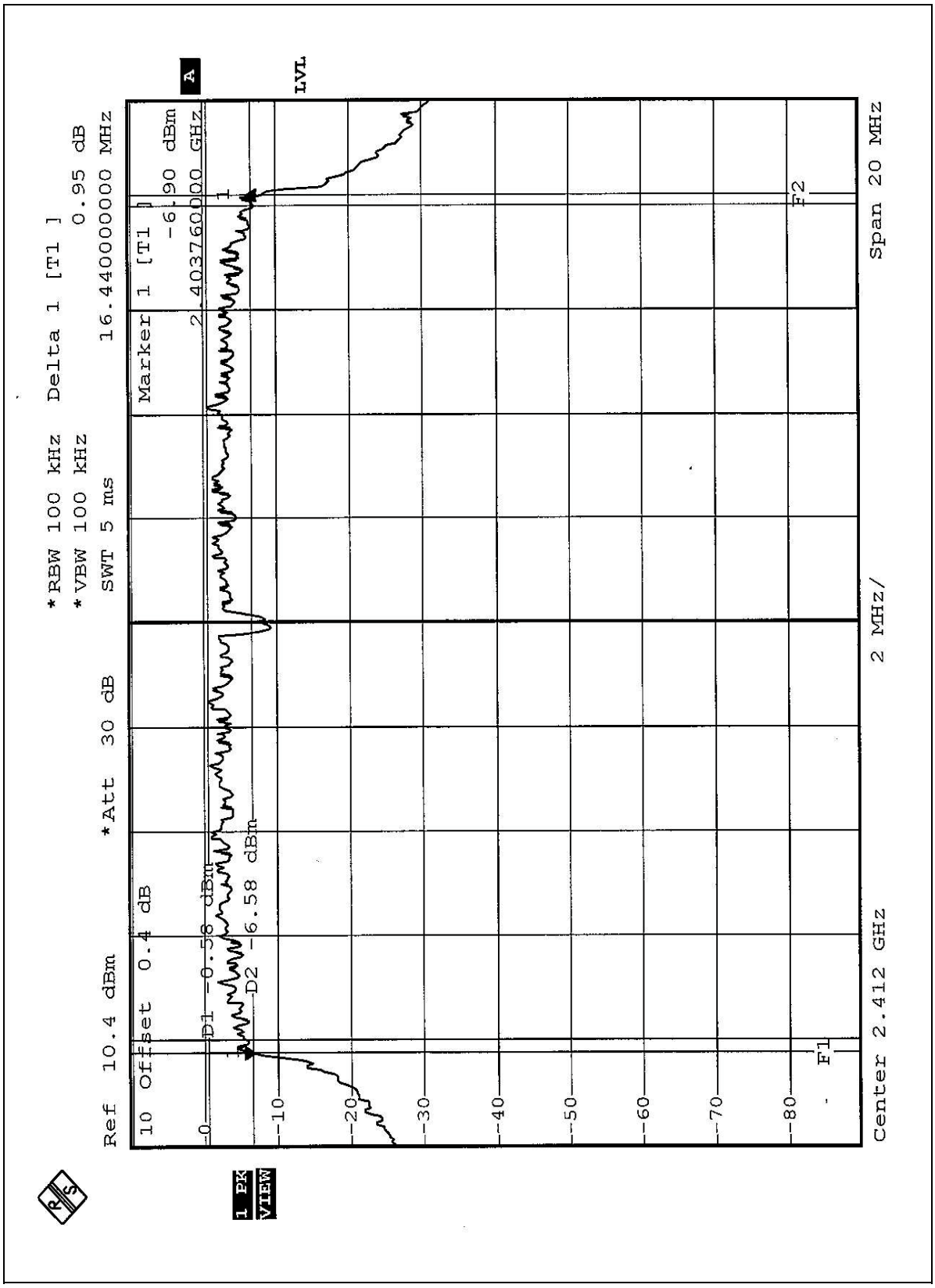

Ref 10 dBm
Offset 8.9 dB
D1 8.9 dBm
D2 2.9 dB
*Att 30 dB
*RBW 100 kHz
*VBW 100 kHz
SWT 5 ms
Delta 1 [T1]
-0.09 dB
11.040000000 MHz
Marker 1 [T1]
2.99 dBm
2.465600000 GHz
A
LVL
F1
F2
Center 2.462 GHz
2 MHz/
Span 20 MHz
1 PK
VIEW

4.3.8 TEST RESULTS (B)

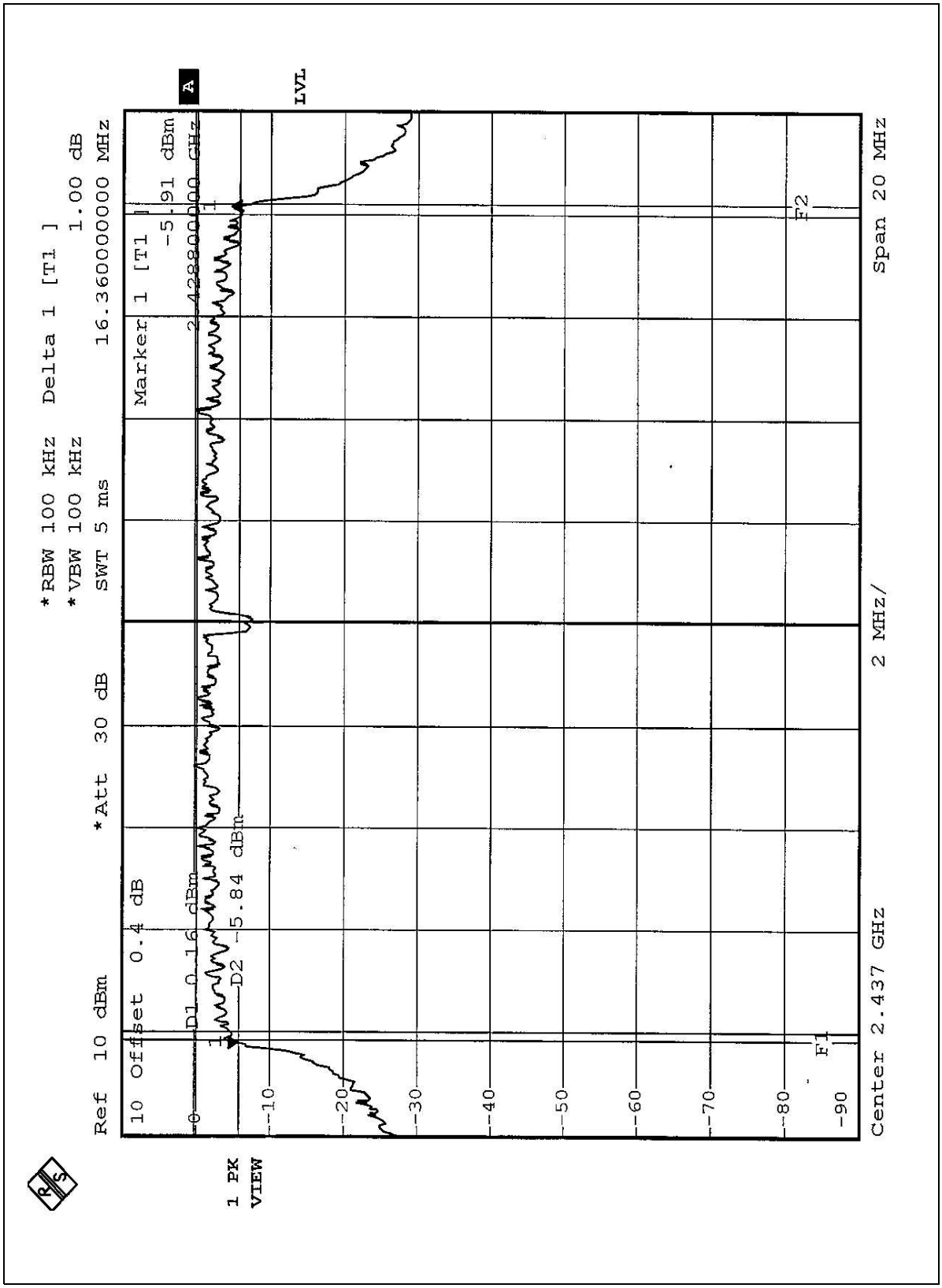
EUT	Wireless LAN Pocket AP	**MODEL**	WL AP 2454 NM1
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	25deg. C, 64%RH, 991hPa
TESTED BY: Steven Lu			

CHANNEL	CHANNEL FREQUENCY (MHz)	6 dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS/FAIL
1	2412	16.44	0.5	PASS
6	2437	16.36	0.5	PASS
11	2462	17.56	0.5	PASS

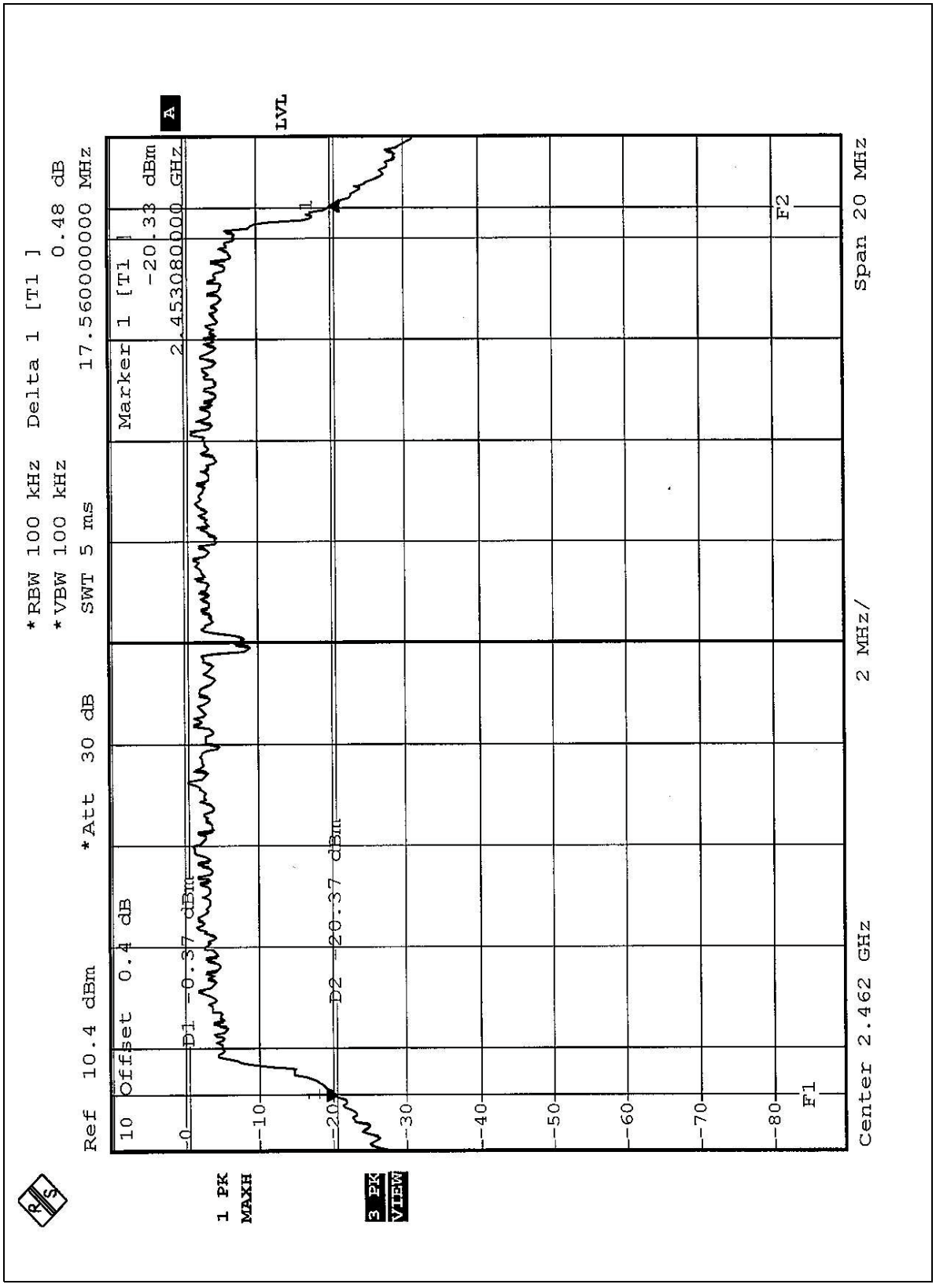
CH1


Ref 10.4 dBm
10 Offset 0.4 dB
*Att 30 dB
*RBW 100 kHz
*VBW 100 kHz
SWT 5 ms
Delta 1 [T1]
0.95 dB
16.440000000 MHz
Marker
1 [T1]
-6.90 dBm
2.403760000 GHz
D1 -0.58 dBm
D2 -6.58 dBm
Center 2.412 GHz
2 MHz/
Span 20 MHz
1 PK VIEW

CH6


Ref 10 dBm
*Att 30 dB
SWT 5 ms
*VBW 100 kHz
*RBW 100 kHz
Delta 1 [T1]
1.00 dB
16.360000000 MHz
Marker 1 [T1]
-5.91 dBm
2.42880000 GHz
Offset 0.4 dB
D1 0.16 dBm
D2 -5.84 dBm
Center 2.437 GHz
2 MHz/
Span 20 MHz
1 PK
VIEW
LVL
F1
F2

CH11


RBW 100 kHz
VBW 100 kHz
SWT 5 ms
Delta 1 [T1]
0.48 dB
17.560000000 MHz
Marker 1 [T1]
-20.33 dBm
2.453080000 GHz
Ref 10.4 dBm
Offset 0.4 dB
Att 30 dB
D1 -0.37 dBm
D2 -20.37 dBm
Center 2.462 GHz
2 MHz/
Span 20 MHz
1 PK MAXH
3 PK VIEW
LVL

4.4 MAXIMUM PEAK OUTPUT POWER

4.4.1 LIMITS OF MAXIMUM PEAK OUTPUT POWER MEASUREMENT

The Maximum Peak Output Power Measurement is 30dBm.

4.4.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
R&S SPECTRUM ANALYZER	FSEK30	100049	Aug. 12, 2004
AGILENT SIGNAL GENERATOR	E8257C	MY43320668	Dec. 31, 2004
TEKTRONIX OSCILLOSCOPE	TDS 220	C019167	Feb. 1, 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.

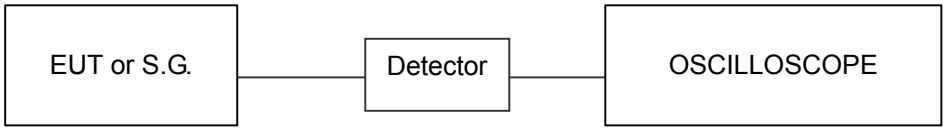
4.4.3 TEST PROCEDURES

1. A detector was used on the output port of the EUT. An oscilloscope was used to read the 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 reading on oscilloscope. Record the power level.

4.4.4 DEVIATION FROM TEST STANDARD

No deviation

4.4.5 TEST SETUP



4.4.6 EUT OPERATING CONDITIONS

Same as Item 4.1.6

4.4.7 TEST RESULTS (A)

EUT	Wireless LAN Pocket AP	**MODEL**	WL AP 2454 NM1
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	25deg. C, 64%RH, 991hPa
TESTED BY: Steven Lu			

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	18.01	30	PASS
6	2437	18.00	30	PASS
11	2462	18.03	30	PASS

4.4.8 TEST RESULTS (B)

EUT	Wireless LAN Pocket AP	**MODEL**	WL AP 2454 NM1
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	25deg. C, 64%RH, 991hPa
TESTED BY: Steven Lu			

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	15.00	30	PASS
6	2437	15.03	30	PASS
11	2462	15.02	30	PASS

4.5 POWER SPECTRAL DENSITY MEASUREMENT

4.5.1 LIMITS OF POWER SPECTRAL DENSITY MEASUREMENT

The Maximum of Power Spectral Density Measurement is 8dBm.

4.5.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
SPECTRUM ANALYZER	FSEK30	100049	Aug. 12, 2004

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

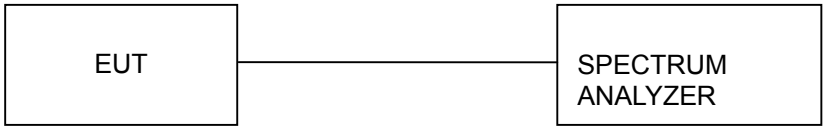
4.5.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer through an attenuator, the bandwidth of the fundamental frequency was measured with the spectrum analyzer using 3 kHz RBW and 30 kHz VBW, set sweep time=span/3kHz. The power spectral density was measured and recorded.
The sweep time is allowed to be longer than span/3KHz for a full response of the mixer in the spectrum analyzer.

4.5.4 DEVIATION FROM TEST STANDARD

No deviation

4.5.5 TEST SETUP



4.5.6 EUT OPERATING CONDITIONS

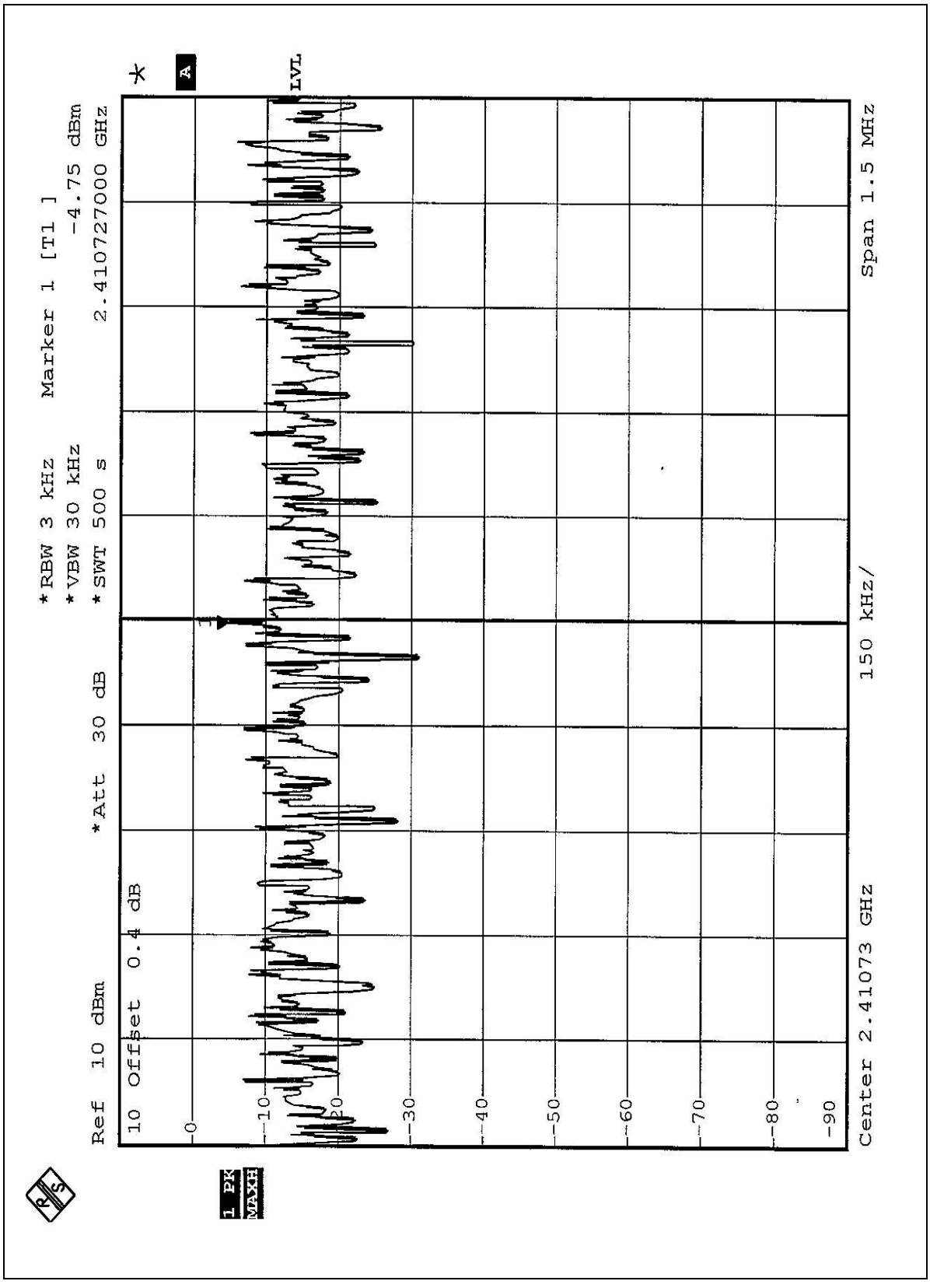
Same as 4.1.6

4.5.7 TEST RESULTS (A)

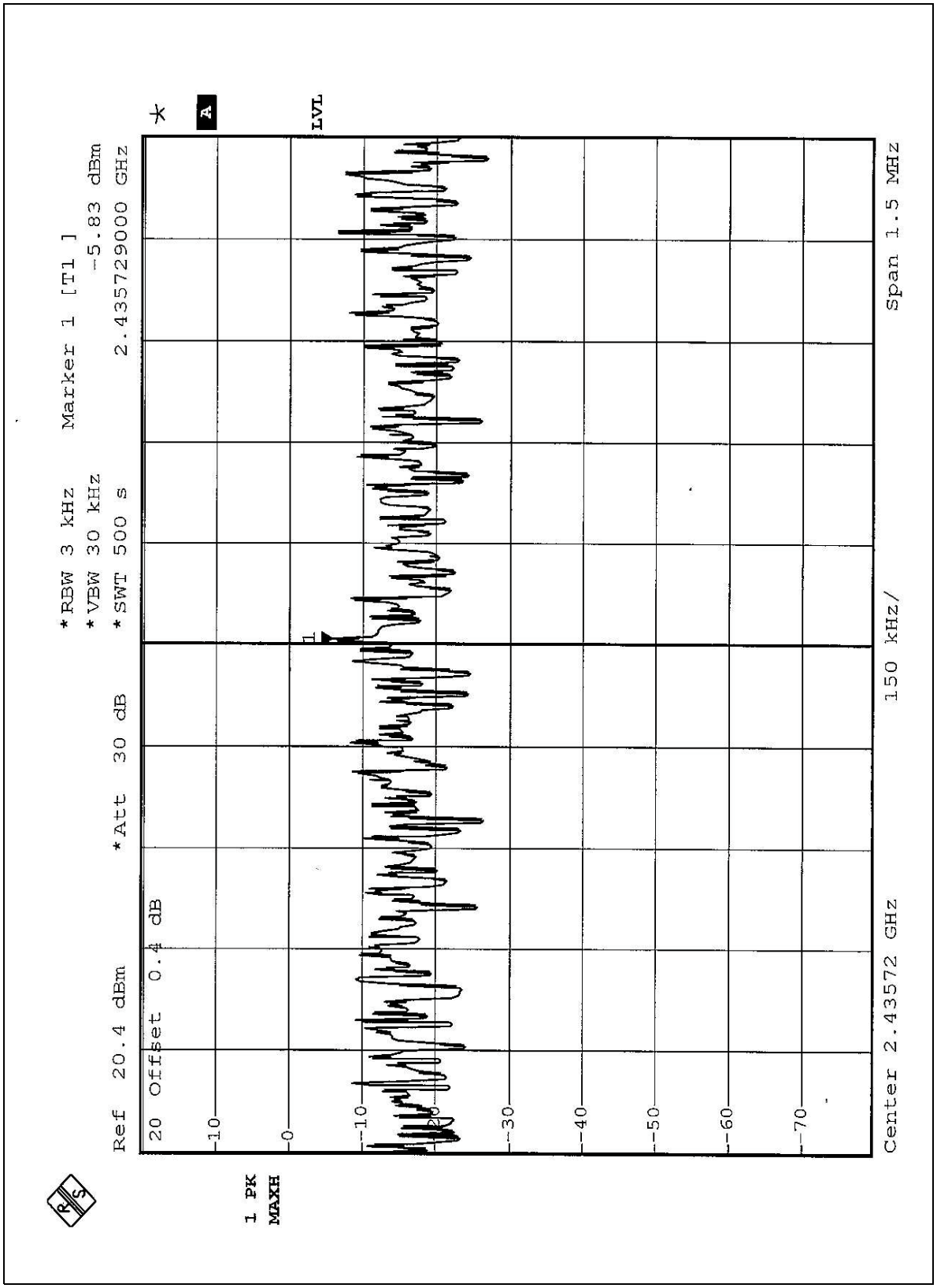
EUT	Wireless LAN Pocket AP	**MODEL**	WL AP 2454 NM1
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	25deg. C, 64%RH, 991hPa
TESTED BY: Steven Lu			

CHANNEL NUMBER	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3KHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-4.75	8	PASS
6	2437	-5.83	8	PASS
11	2462	-5.36	8	PASS

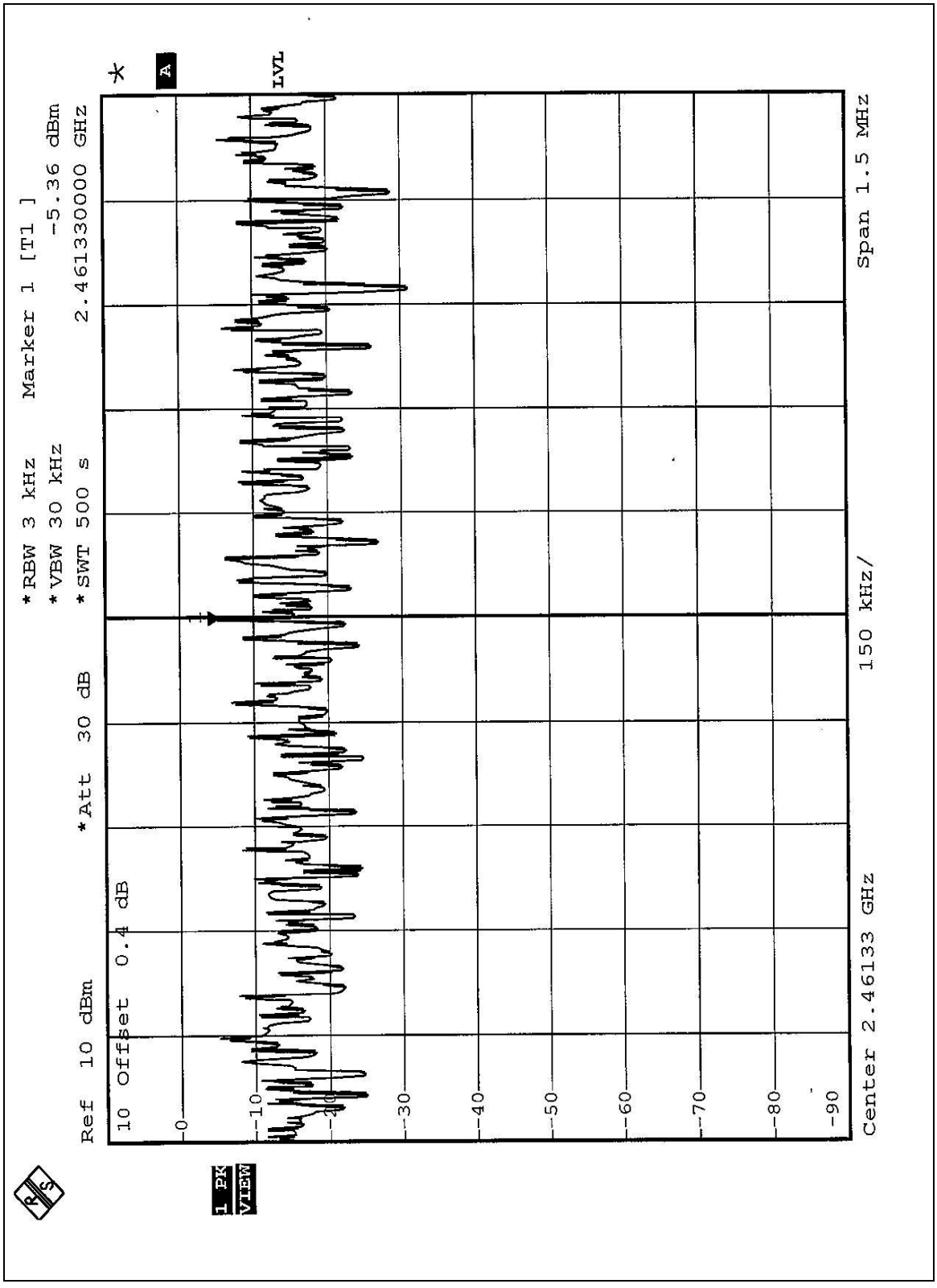
CH1


Ref 10 dBm
10 Offset 0.4 dB
*Att 30 dB
*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-4.75 dBm
2.410727000 GHz
Center 2.41073 GHz
150 kHz/
Span 1.5 MHz
1 PK
MAXH
LVL
A

CH6


Ref 20.4 dBm
20 Offset 0.4 dB
*Att 30 dB
*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-5.83 dBm
2.43572900 GHz
1 PK
MAXH
LVL
Center 2.43572 GHz
150 kHz/
Span 1.5 MHz

CH11

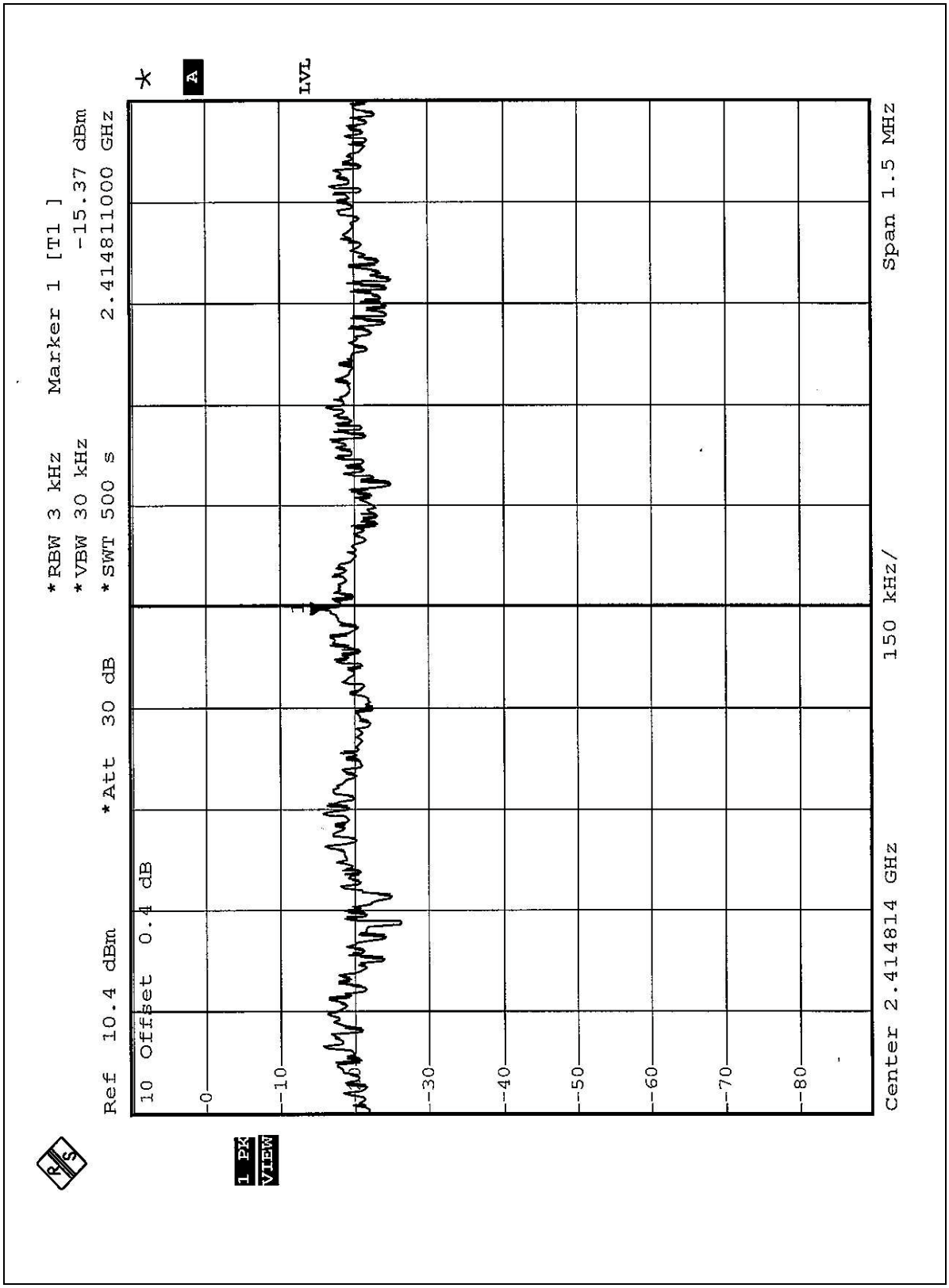

Ref 10 dBm
10 Offset 0.4 dB
*Att 30 dB
*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-5.36 dBm
2.461330000 GHz
Center 2.46133 GHz
150 kHz/
Span 1.5 MHz
1 PK
VIEW
A
LVL

4.5.8 TEST RESULTS (B)

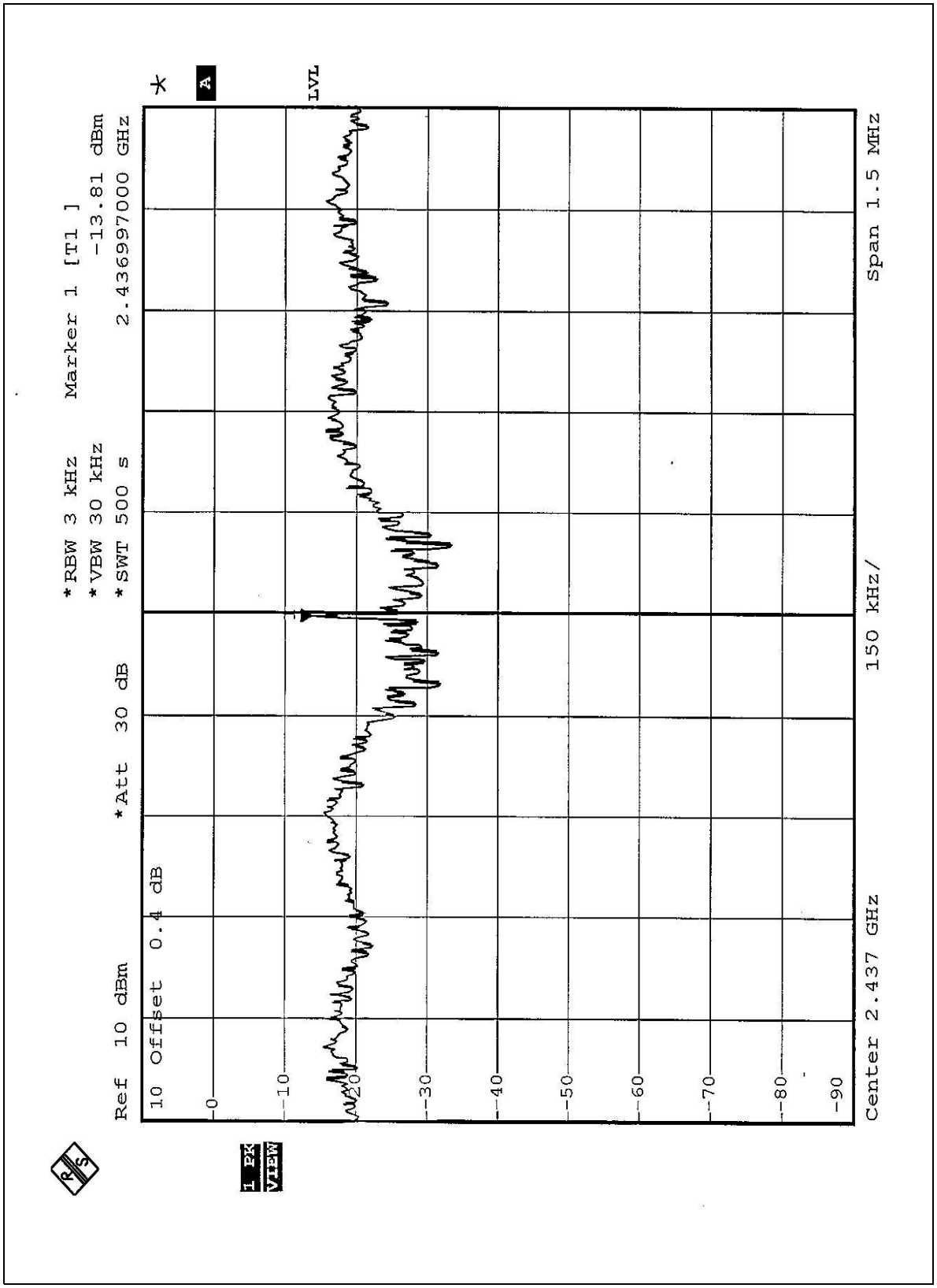
EUT	Wireless LAN Pocket AP	**MODEL**	WL AP 2454 NM1
INPUT POWER (SYSTEM)	120Vac, 60Hz	**ENVIRONMENTAL CONDITIONS**	25deg. C, 64%RH, 991hPa
TESTED BY: Steven Lu			

CHANNEL NUMBER	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3KHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-15.37	8	PASS
6	2437	-13.81	8	PASS
11	2462	-15.19	8	PASS

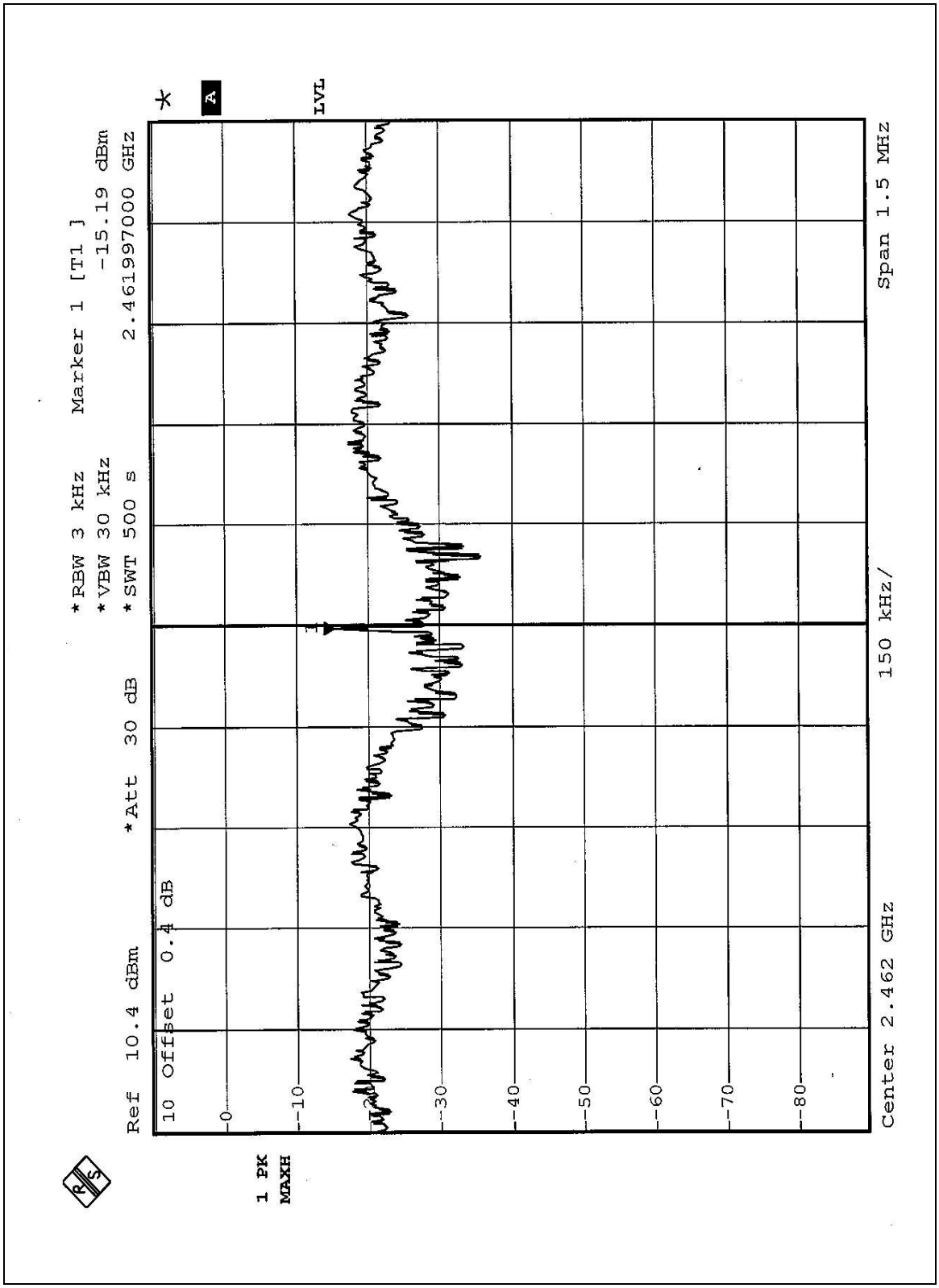
CH1


Ref 10.4 dBm
10 Offset 0.4 dB
*Att 30 dB
*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-15.37 dBm
2.414811000 GHz
1 PK VIEW
Center 2.414814 GHz
150 kHz/
Span 1.5 MHz

CH6


Ref 10 dBm
10 Offset 0.4 dB
*Att 30 dB
*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-13.81 dBm
2.436997000 GHz
Center 2.437 GHz
150 kHz/
Span 1.5 MHz
1 PK
VIEW

CH11


Ref 10.4 dBm
10 Offset 0.4 dB
*Att 30 dB
*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-15.19 dBm
2.461997000 GHz
LVL
Center 2.462 GHz
150 kHz/
Span 1.5 MHz
1 PK
MAXH

4.6 BAND EDGES MEASUREMENT

4.6.1 LIMITS OF BAND EDGES MEASUREMENT

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

4.6.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
SPECTRUM ANALYZER	FSEK30	100049	Aug. 12, 2004

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

4.6.3 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 1MHz and 10Hz with suitable frequency span including 100MHz bandwidth from band edge. The band edges was measured and recorded.

4.6.4 DEVIATION FROM TEST STANDARD

No deviation

4.6.5 EUT OPERATING CONDITION

Same as Item 4.1.6

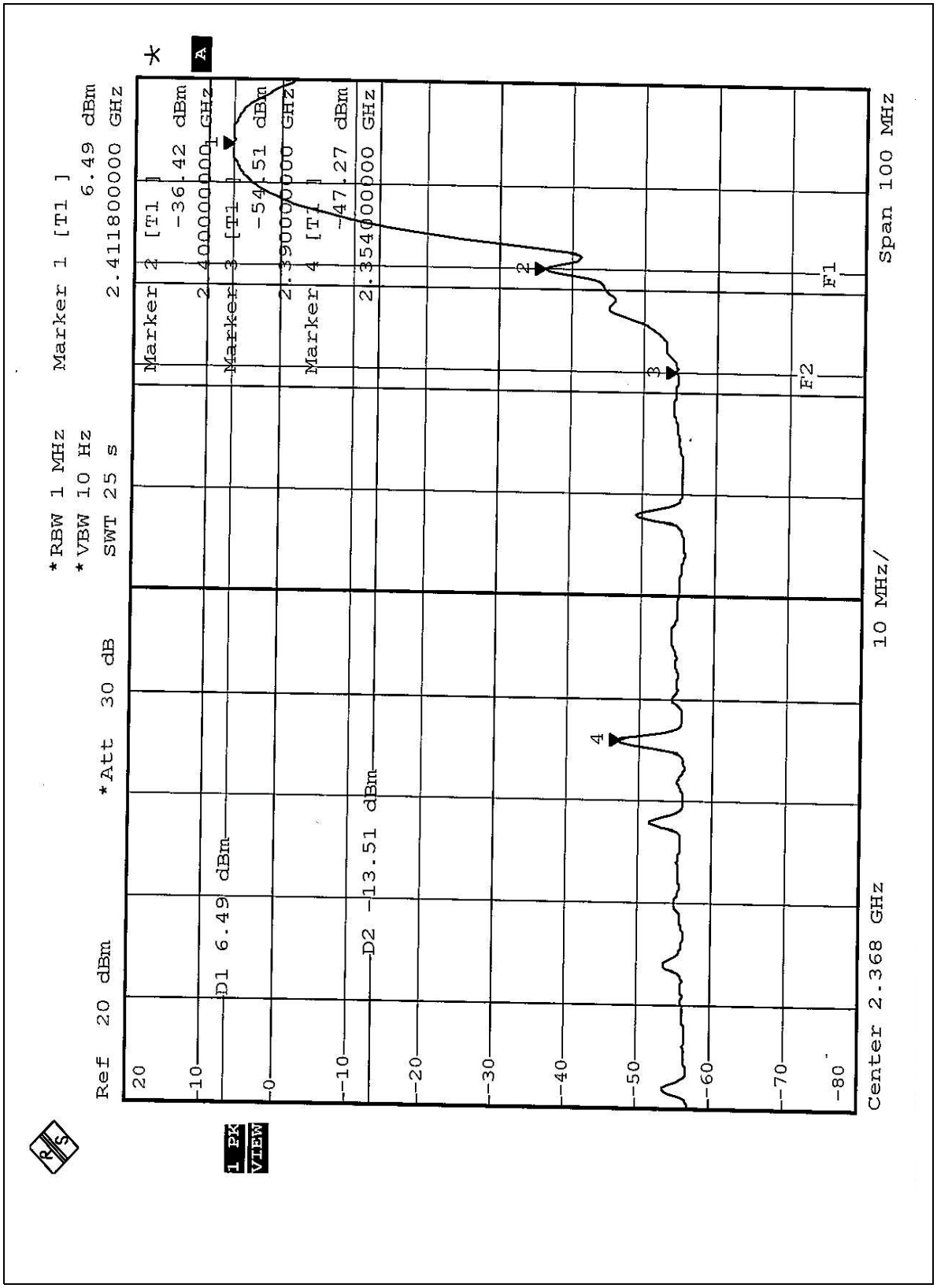
4.6.6 TEST RESULTS (A)

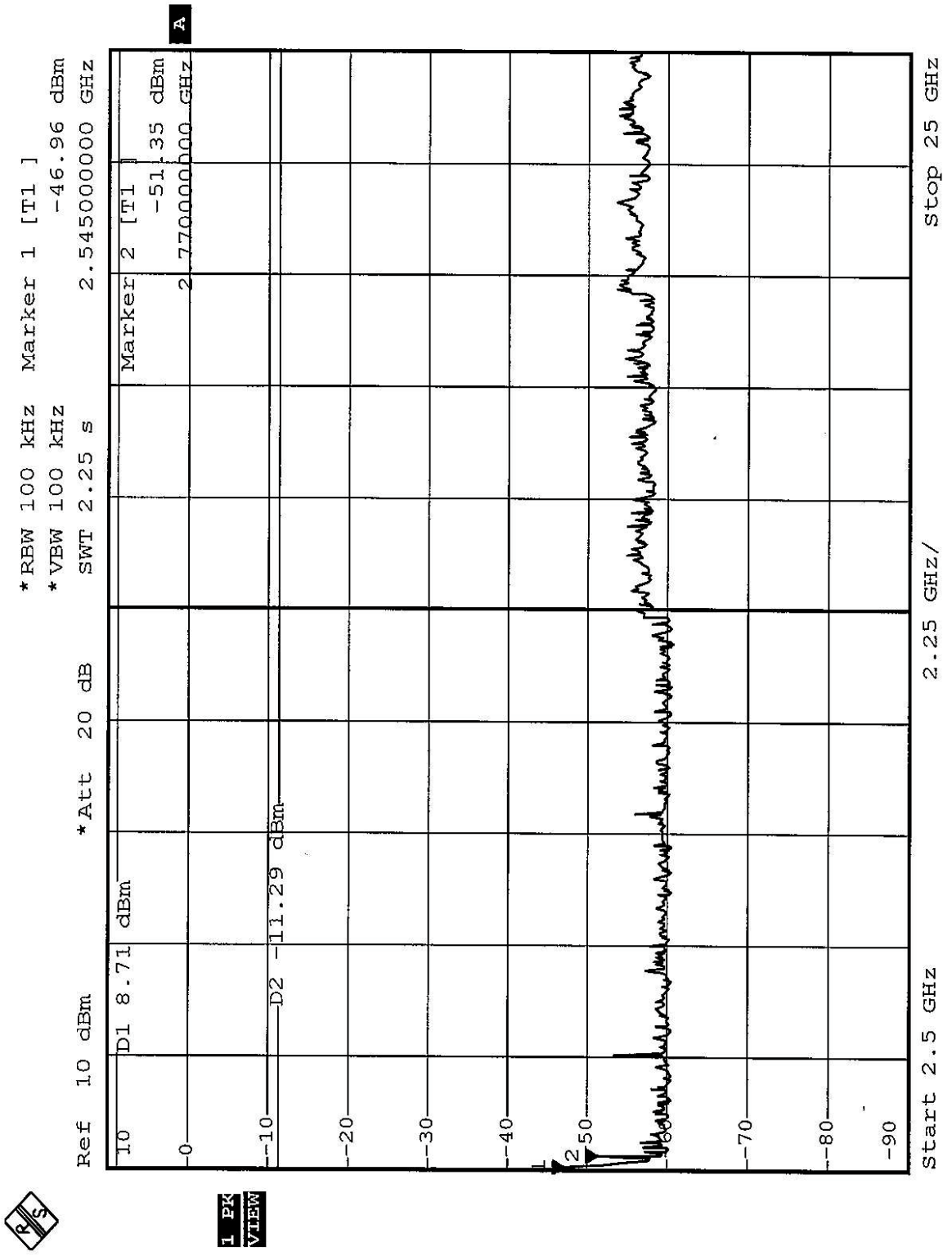
The spectrum plots are attached on the following 4 pages. D2 line indicates the highest level, D1 line indicates the 20dB offset below D2. It shows compliance with the requirement in part 15.247(C).

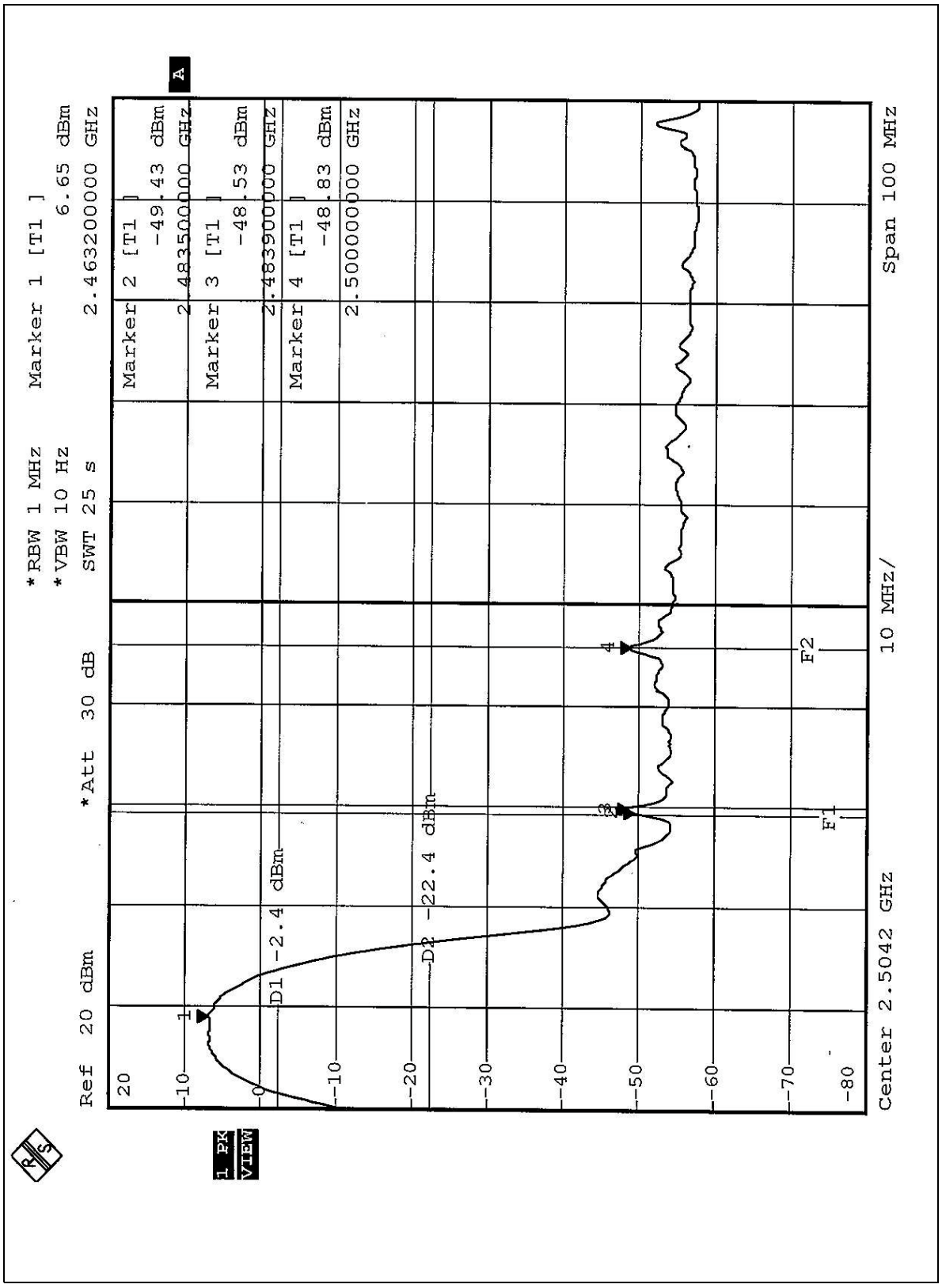
NOTE:

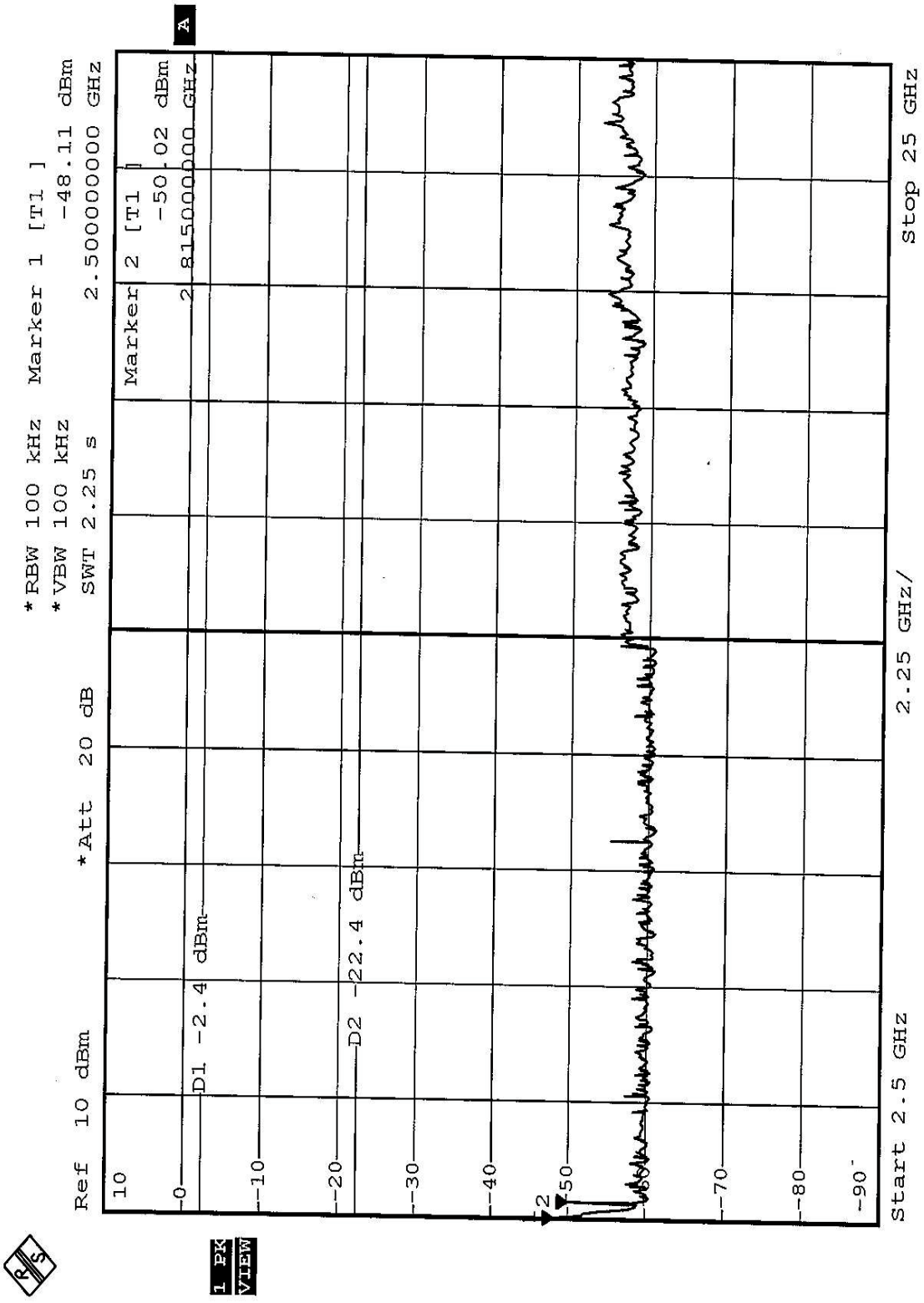
The band edge emission plot on the following 1 ~ 2 page shows 53.76dB delta between carrier maximum power and local maximum emission in restrict band (2.3540GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.8 is 102.06dBuV/m, so the maximum field strength in restrict band is 102.06-53.76=48.30dBuV/m which is under 54dBuV/m limit.

The band edge emission plot on the following 3 ~ 4 page shows 55.18dB delta between carrier maximum power and local maximum emission in restrict band (2.4839GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.8 is 103.34dBuV/m, so the maximum field strength in restrict band is 103.34-55.18=48.16dBuV/m which is under 54dBuV/m limit.


Marker 1 [T1]
6.49 dBm
2.411800000 GHz
*RBW 1 MHz
*VBW 10 Hz
SWT 25 s
*Att 30 dB
Ref 20 dBm
Marker 2 [T1]
-36.42 dBm
2.400000000 GHz
Marker 3 [T1]
-54.51 dBm
2.390000000 GHz
Marker 4 [T1]
-47.27 dBm
2.354000000 GHz
D1 6.49 dBm
D2 -13.51 dBm
F1
F2
Center 2.368 GHz
10 MHz/
Span 100 MHz
1 PK
VIEW


Ref 10 dBm
*Att 20 dB
*RBW 100 kHz
*VBW 100 kHz
SWT 2.25 s
Marker 1 [T1]
-46.96 dBm
2.54500000 GHz
Marker 2 [T1]
-51.35 dBm
2.77000000 GHz
D1 8.71 dBm
D2 -11.29 dBm
1 PK
VIEW
A
Start 2.5 GHz
2.25 GHz/
Stop 25 GHz


RBW 1 MHz
VBW 10 Hz
SWT 25 s
Marker 1 [T1]
6.65 dBm
2.46320000 GHz
Att 30 dB
Ref 20 dBm
Marker 2 [T1]
-49.43 dBm
2.48350000 GHz
Marker 3 [T1]
-48.53 dBm
2.48390000 GHz
Marker 4 [T1]
-48.83 dBm
2.50000000 GHz
D1 -2.4 dBm
D2 -22.4 dBm
F1
F2
Center 2.5042 GHz
10 MHz/
Span 100 MHz
1 PK VIEW

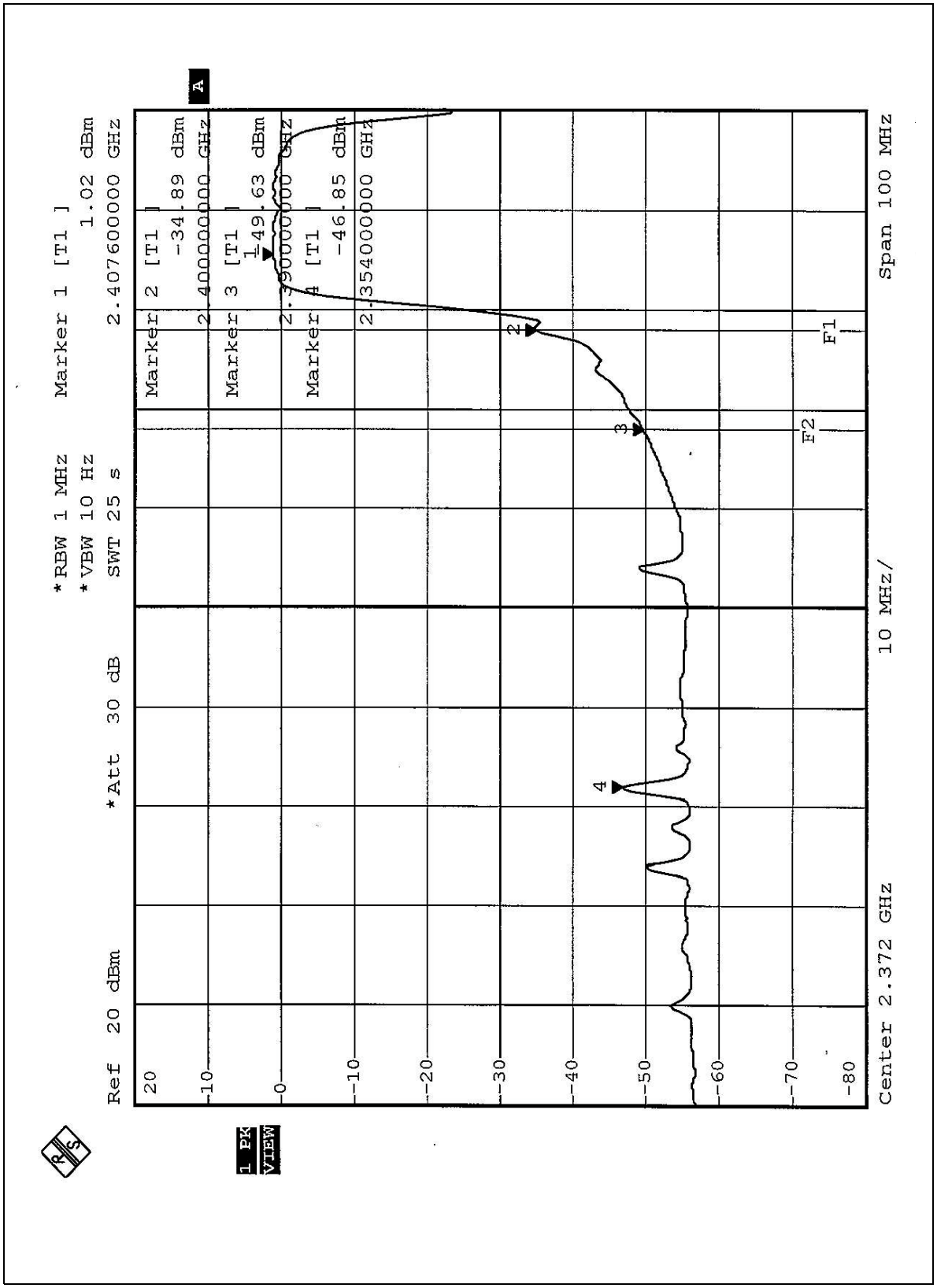

Ref 10 dBm
*Att 20 dB
*RBW 100 kHz
*VBW 100 kHz
SWT 2.25 s
Marker 1 [T1]
-48.11 dBm
2.50000000 GHz
Marker 2 [T1]
-50.02 dBm
2.81500000 GHz
D1 -2.4 dBm
D2 -22.4 dBm
1 PK VIEW
A
Start 2.5 GHz
2.25 GHz/
Stop 2.25 GHz

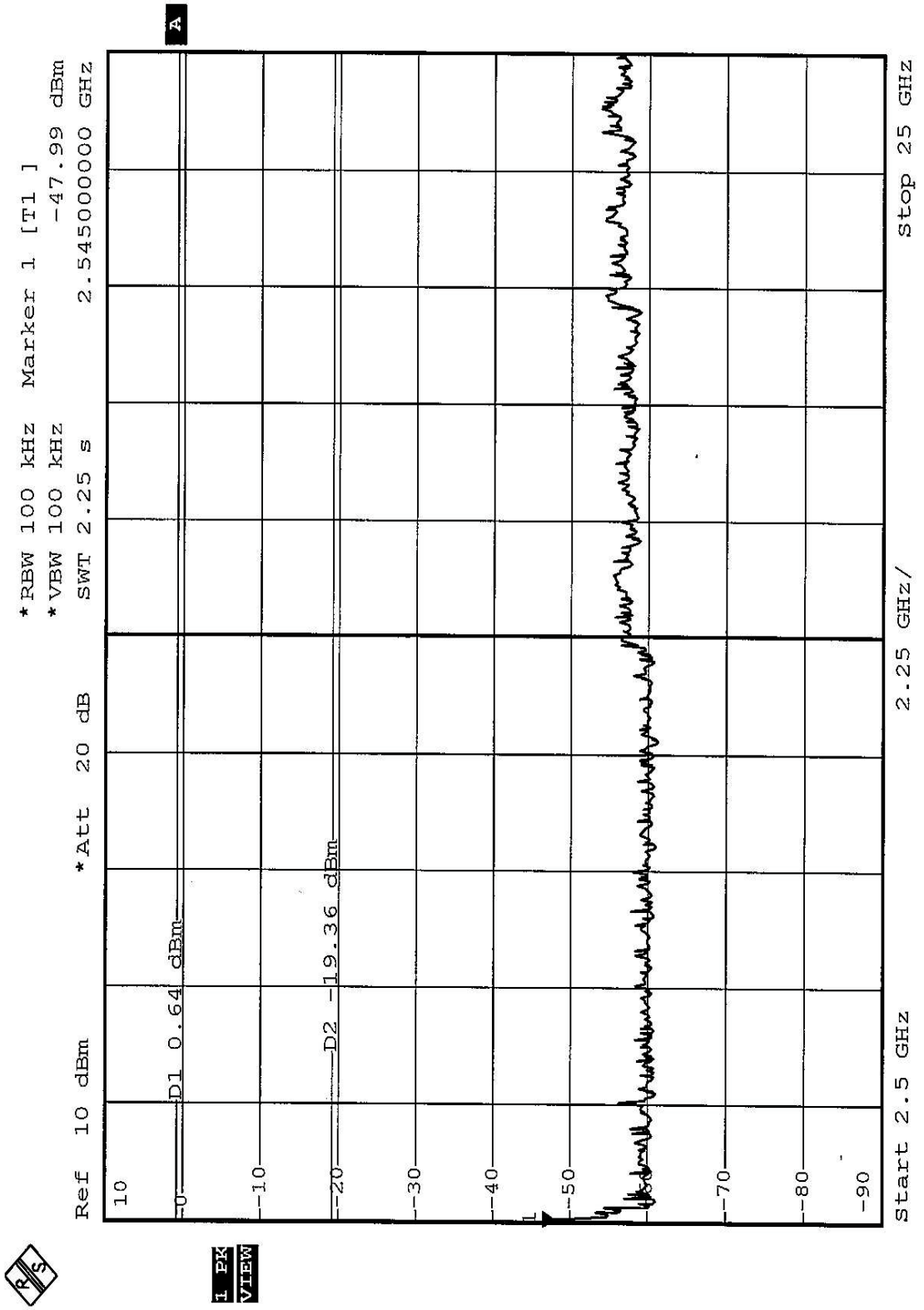
4.6.7 TEST RESULTS (B)

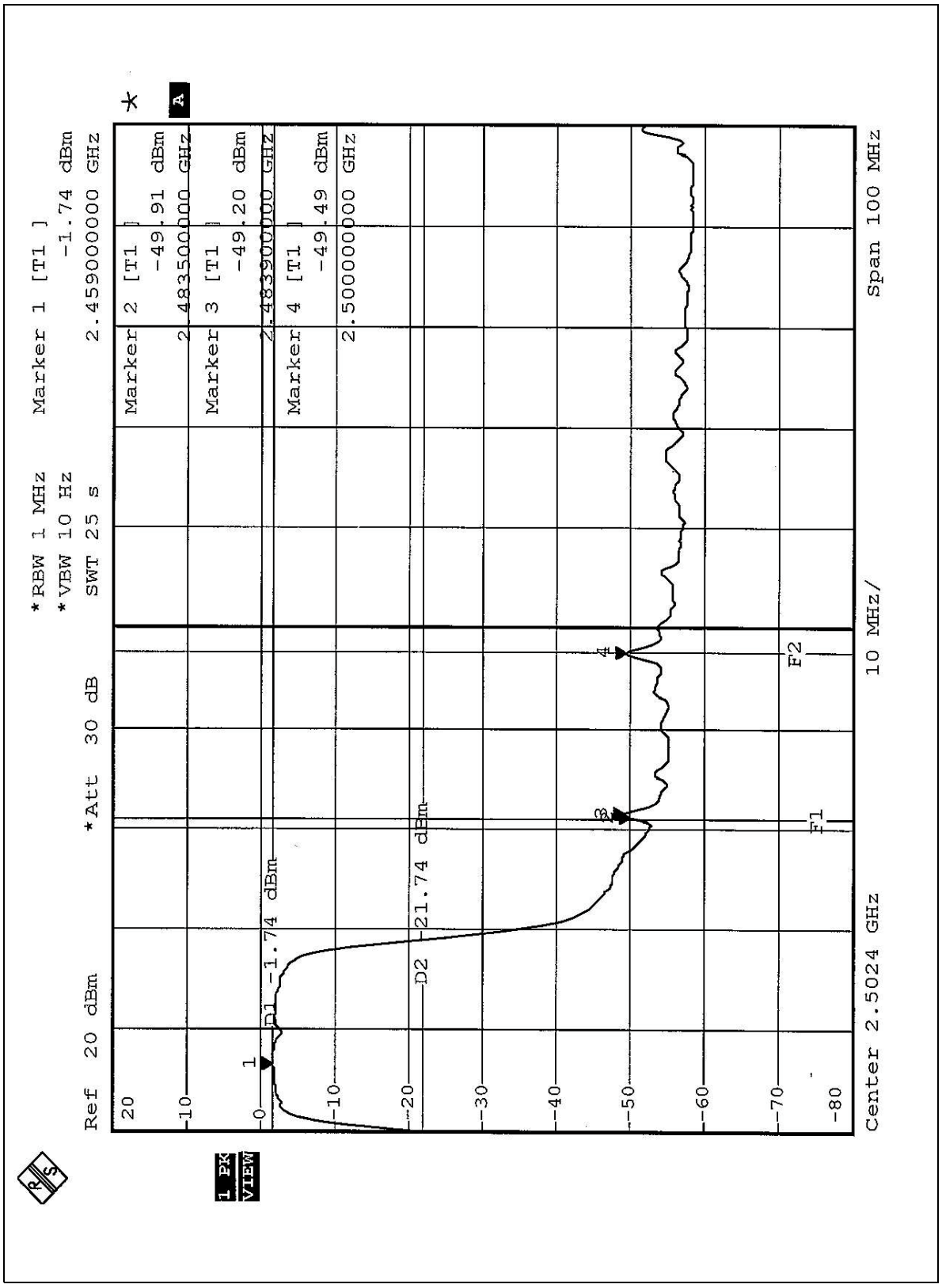
The spectrum plots are attached on the following 4 pages. D2 line indicates the highest level and D1 line indicates the 20dB offset below D2. It shows compliance with the requirement in part 15.247(C).

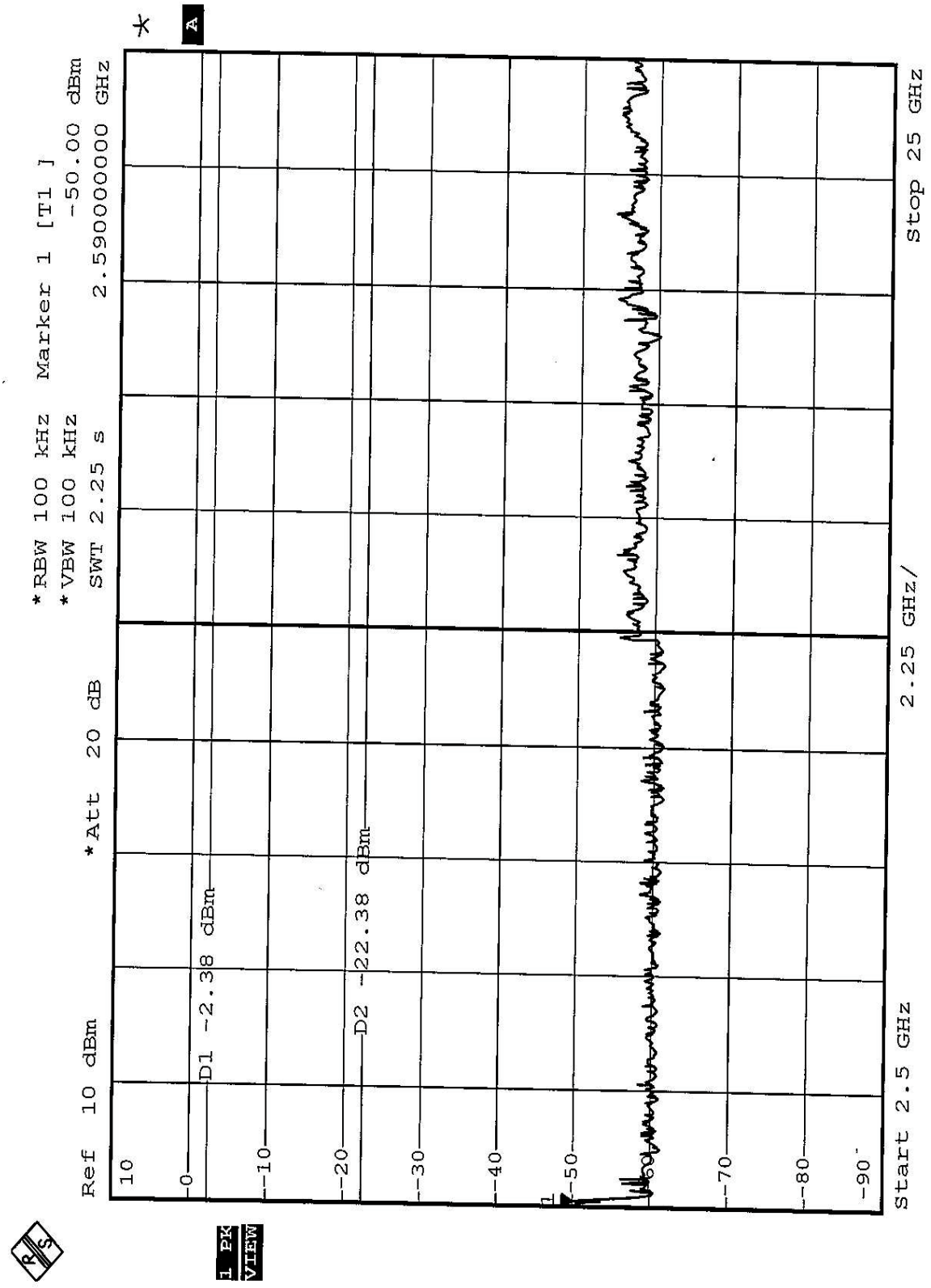
NOTE:
The band edge emission plot on the following1 ~ 2 page shows 47.87dB delta between carrier maximum power and local maximum emission in restrict band (2.3540GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.8 is 96.05dBuV/m, so the maximum field strength in restrict band is 96.05-47.87=48.18dBuV/m which is under 54dBuV/m limit.

The band edge emission plot on the following 3 ~ 4 page shows 47.46dB delta between carrier maximum power and local maximum emission in restrict band (2.4839GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.8 is 96.07dBuV/m, so the maximum field strength in restrict band is 96.07-47.46=48.61dBuV/m which is under 54dBuV/m limit.


RBW 1 MHz
VBW 10 Hz
SWT 25 s
Marker 1 [T1]
1.02 dBm
2.407600000 GHz
Marker 2 [T1]
-34.89 dBm
2.400000000 GHz
Marker 3 [T1]
-49.63 dBm
2.390000000 GHz
Marker 4 [T1]
-46.85 dBm
2.354000000 GHz
Ref 20 dBm
Att 30 dB
Center 2.372 GHz
10 MHz/
Span 100 MHz
F1
F2
1 PK
VIEW


A
*RBW 100 kHz
*VBW 100 kHz
SWT 2.25 s
Marker 1 [T1]
-47.99 dBm
2.545000000 GHz
Ref 10 dBm
*Att 20 dB
D1 0.64 dBm
D2 -19.36 dBm
1 PK
VIEW
Start 2.5 GHz
2.25 GHz/
Stop 25 GHz


Marker 1 [T1]
-1.74 dBm
2.459000000 GHz
Marker 2 [T1]
-49.91 dBm
2.483500000 GHz
Marker 3 [T1]
-49.20 dBm
2.483900000 GHz
Marker 4 [T1]
-49.49 dBm
2.500000000 GHz
*RBW 1 MHz
*VBW 10 Hz
SWT 25 s
*Att 30 dB
Ref 20 dBm
D1 -1.74 dBm
D2 -21.74 dBm
Center 2.5024 GHz
10 MHz/
Span 100 MHz
F1
F2
1 PK VIEW


Ref 10 dBm
*Att 20 dB
*RBW 100 kHz
*VBW 100 kHz
SWT 2.25 s
Marker 1 [T1]
-50.00 dBm
2.590000000 GHz
D1 -2.38 dBm
D2 -22.38 dBm
1 PK
VIEW
A
Start 2.5 GHz
2.25 GHz/
Stop 25 GHz

4.7 ANTENNA REQUIREMENT

4.7.1 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.

4.7.2 ANTENNA CONNECTED CONSTRUCTION

The antenna used in this product is Chip / PIFA antenna without connector. And the maximum Gain of this antenna is 0dBi.

5 PHOTOGRAPHS OF THE TEST CONFIGURATION

CONDUCTED EMISSION TEST

RADIATED EMISSION TEST

6 INFORMATION ON THE TESTING LABORATORIES

We, ADT Corp., were founded in 1988 to provide our best service in EMC, Radio, Telecom 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
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Canada	INDUSTRY CANADA , CSA
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Netherlands	Telefication
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Russia	CERTIS(MOU)

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:

Linko EMC/RF Lab
Tel: 886-2-26052180
Fax: 886-2-26052943

Hsin Chu EMC/RF Lab
Tel: 886-3-5935343
Fax: 886-3-5935342

Hwa Ya EMC/RF/Safety/Telecom Lab
Tel: 886-3-3183232
Fax: 886-3-3185050

Linko RF Lab
Tel: 886-3-3270910
Fax: 886-3-3270892

Email: service@mail.adt.com.tw
Web Site: www.adt.com.tw

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

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