FCC TEST REPORT

REPORT NO.: RF930615L05
MODEL NO.: WMP54Gv4
RECEIVED: June 02, 2004
TESTED: June 02, 2004 ~ June 18, 2004

APPLICANT: Cisco-Linksys, LLC

ADDRESS: 121 Theory Drive, Irvine, CA 92612 (USA)

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.

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1 CERTIFICATION

PRODUCT :	Wireless-G PCI Adapter
MODEL NO.:	WMP54Gv4
BRAND:	Linksys
APPLICANT :	Cisco-Linksys, LLC
TESTED:	June 02, 2004 ~ June 18, 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:** June 23, 2004

Wendy Liao

APPROVED BY: Cody Chang , **DATE:** June 23, 2004

Cody Chang / Supervisor

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 –14.30dB at 23.395MHz.
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(c)	Transmitter Radiated Emissions Limit: Table 15.209	PASS	Meet the requirement of limit. Minimum passing margin is –2.02dB at 199.12MHz.
15.247(d)	Power Spectral Density Limit: max. 8dBm	PASS	Meet the requirement of limit.
15.247(c)	Band Edge Measurement Limit: 20 dB less than the peak value of fundamental frequency	PASS	Meet the requirement of limit.

NOTE: The information of measurement uncertainty is available upon the customer's request.

3 GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Wireless-G PCI Adapter
MODEL NO.	WMP54Gv4
POWER SUPPLY	5Vdc from host equipment
MODULATION TYPE	BPSK, QPSK, CCK, 16QAM, 64QAM
MODULATION 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
MAXIMUM OUTPUT POWER (FOF CCK)	13.22dBm
MAXIMUM OUTPUT POWER (FOF OFDM)	13.35dBm
ANTENNA TYPE	Dipole antenna with 7dBi and 5dBi gain
DATA CABLE	NA
I/O PORTS	NA
ASSOCIATED DEVICES	NA

NOTE:

1. The EUT operates in the 2.4GHz frequency spectrum with throughput of up to 54Mbps.

2. There are two types of antennas provided to this EUT:

Antenna	Antenna Type	Antenna Gain (dBi)	Difference
1	Dipole	5dBi	Separated from EUT (with antenna stand)
2	Dipole	7dBi	Attached to EUT directly

3. The EUT complies with IEEE 802.11g draft standards, and backwards compatible with IEEE 802.11b products.

4.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 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. For Radiated Emission Measurement test: Below 1GHz, the channel 1, 6, and 11 were pre-tested in chamber. The channel 11, worst case one, was chosen for final test. Above 1GHz, the channel 1, 6, and 11 were tested individually.
2. Transfer rate, 11Mbps with CCK technique and 6Mbps with OFDM technique, worst cases, were chosen for final test.
3. Two test results were presented in the following sections, the test result A was for CCK technique, the test result B was for OFDM technique.
4. The mode A was for antenna with 5dBi gain separated from EUT (with antenna stand), and the mode B was for antenna with 7dBi gain attached to EUT directly.

3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a Wireless-G PCI Adapter. According to the specifications of the manufacturer, it must comply 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.

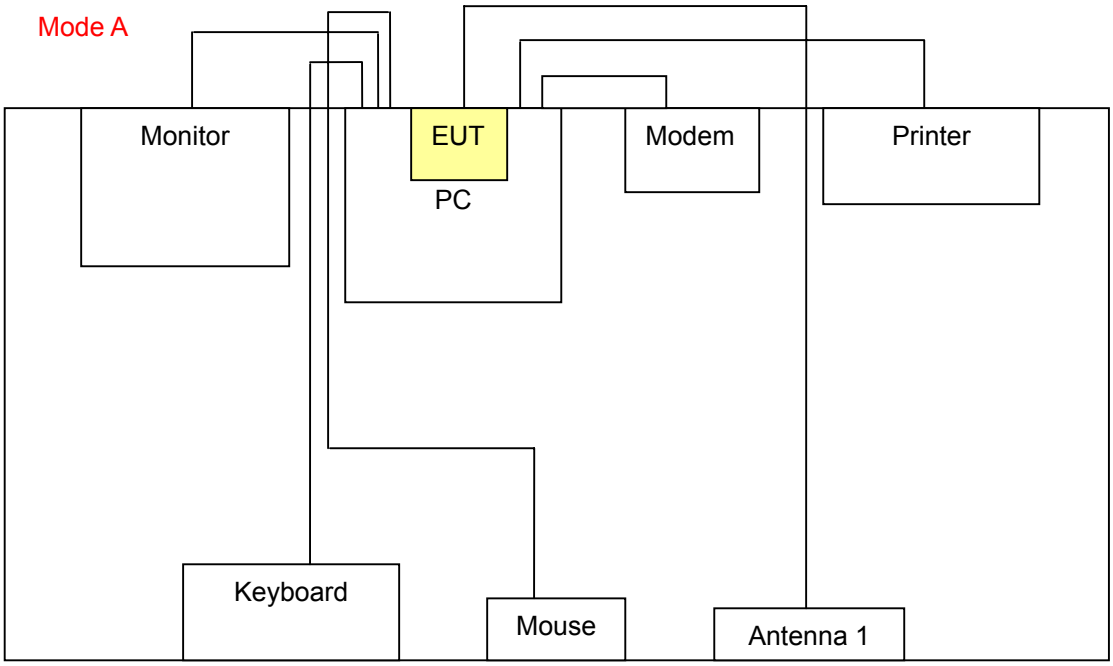
NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	PC	MSI	Hetis 865G Giga	3AS0119585	FCC DoC Approved
2	LCD MONITOR	ACER	AL1721	ET.L0408.010404001E4PK00	FCC DoC Approved
3	KEYBOARD	DELL	SK-8110	MY-05N456-71619-3C1-1802	FCC DoC Approved
4	MOUSE	HP	M-S69	N/A	INZ211443
5	PRINTER	EPSON	LQ-300+	DCGY054146	FCC DoC Approved
6	MODEM	ACEEX	1414V/3	0401008260	IFAXDM1414

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	NA
2	NA
3	1.6m (shielded cable without core)
4	1.8m (shielded cable without core)
5	1.2m braid shielded wire, terminated with DB25 and Centronics connector via metallic frame, w/o core
6	1.2 m braid shielded wire, terminated with DB25 and DB9 connector via metallic frame, w/o core.

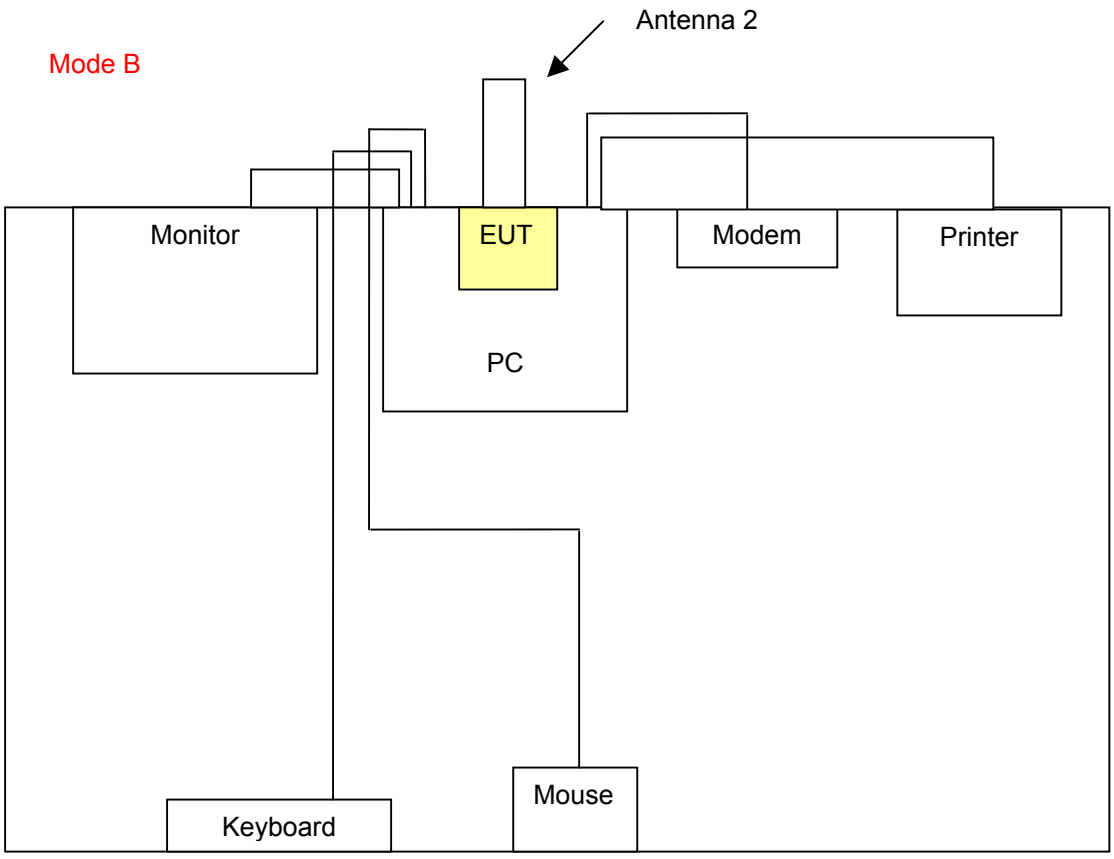
NOTE: All power cords of the above support units are non shielded (1.8m).

3.5 CONFIGURATION OF SYSTEM UNDER TEST

Mode A



Mode B



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	66 to 56	56 to 46
0.5-5	56	46
5-30	60	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
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.

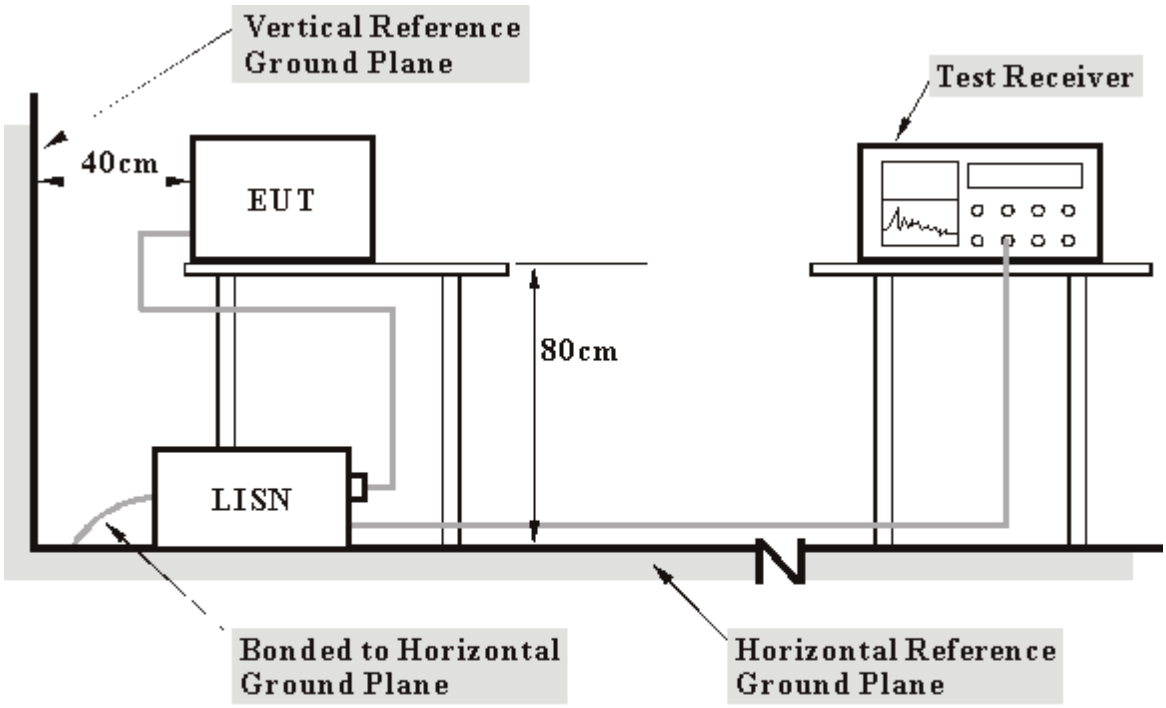
b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

c. The frequency range from 150kHz to 30MHz was searched. Emission levels under 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

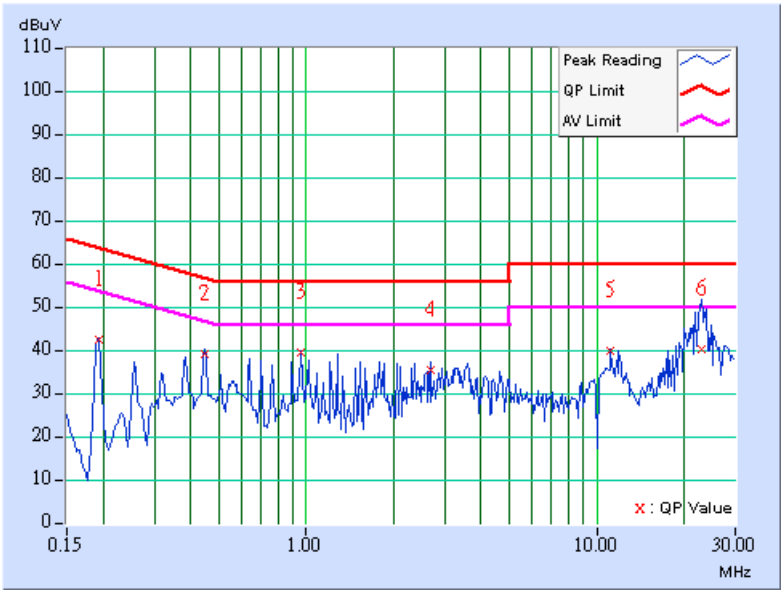
a. Plug the EUT a personal computer system placed on a testing table.
b. The personal computer system ran a test program (provided by manufacturer) to enable EUT under transmission/receiving condition continuously at specific channel frequency.
c. The personal computer system show “H” messages on its screen.
d. The personal computer sent “H” messages to modem.
e. The personal computer sent "H" messages to printer, and the printer prints them on paper.
f. Repeated c ~e.

4.1.7 TEST RESULTS

EUT	Wireless-G PCI Adapter	MODEL	WMP54Gv4
MODE	Channel 1	6dB BANDWIDTH	9kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	PHASE	Line (L)
ENVIRONMENTAL CONDITIONS	24deg. C, 64%RH, 991hPa	TESTED BY: Leo Hung	

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	0.193	0.10	41.54	-	41.64	-	63.91	53.91	-22.27	-
2	0.447	0.12	38.20	-	38.32	-	56.93	46.93	-18.61	-
3	0.959	0.24	38.42	-	38.66	-	56.00	46.00	-17.34	-
4	2.684	0.28	34.51	-	34.79	-	56.00	46.00	-21.21	-
5	11.199	0.57	38.78	-	39.35	-	60.00	50.00	-20.65	-
6	22.855	1.06	39.15	-	40.21	-	60.00	50.00	-19.79	-

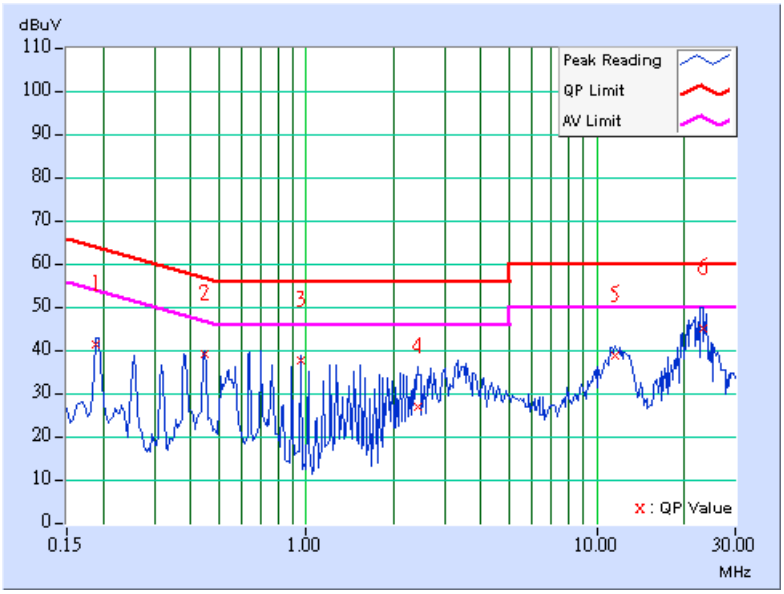
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



EUT	Wireless-G PCI Adapter	**MODEL**	WMP54Gv4
MODE	Channel 1	**6dB BANDWIDTH**	9kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Neutral (N)
ENVIRONMENTAL CONDITIONS	24deg. C, 64%RH, 991hPa	**TESTED BY**: Leo Hung	

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	0.189	0.10	40.92	-	41.02	-	64.08	54.08	-23.06	-
2	0.447	0.12	38.72	-	38.84	-	56.93	46.93	-18.09	-
3	0.955	0.23	37.23	-	37.46	-	56.00	46.00	-18.54	-
4	2.418	0.26	26.53	-	26.79	-	56.00	46.00	-29.21	-
5	11.582	0.51	38.27	-	38.78	-	60.00	50.00	-21.22	-
6	23.301	0.68	44.45	-	45.13	-	60.00	50.00	-14.87	-

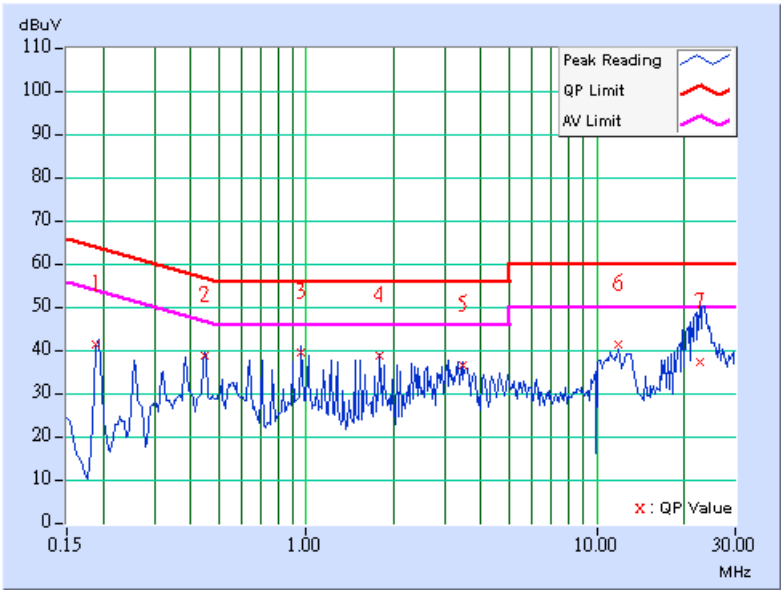
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



EUT	Wireless-G PCI Adapter	**MODEL**	WMP54Gv4
MODE	Channel 6	**6dB BANDWIDTH**	9kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Line (L)
ENVIRONMENTAL CONDITIONS	24deg. C, 64%RH, 991hPa	**TESTED BY**: Leo Hung	

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	0.189	0.10	40.38	-	40.48	-	64.08	54.08	-23.60	-
2	0.447	0.12	37.89	-	38.01	-	56.93	46.93	-18.92	-
3	0.959	0.24	38.72	-	38.96	-	56.00	46.00	-17.04	-
4	1.789	0.26	37.88	-	38.14	-	56.00	46.00	-17.86	-
5	3.453	0.30	35.49	-	35.79	-	56.00	46.00	-20.21	-
6	11.902	0.59	40.49	-	41.08	-	60.00	50.00	-18.92	-
7	22.621	1.05	36.22	-	37.27	-	60.00	50.00	-22.73	-

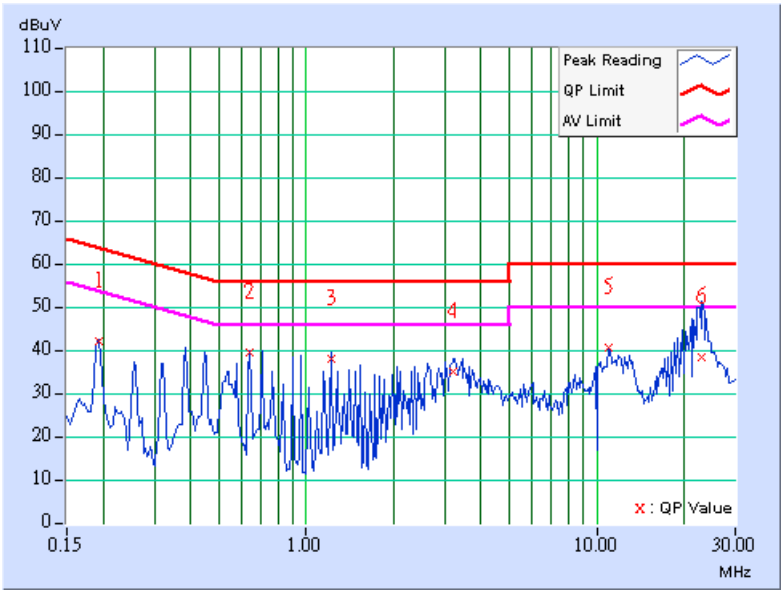
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



EUT	Wireless-G PCI Adapter	**MODEL**	WMP54Gv4
MODE	Channel 6	**6dB BANDWIDTH**	9kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Neutral (N)
ENVIRONMENTAL CONDITIONS	24deg. C, 64%RH, 991hPa	**TESTED BY**: Leo Hung	

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	0.193	0.10	41.54	-	41.64	-	63.91	53.91	-22.27	-
2	0.638	0.16	38.77	-	38.93	-	56.00	46.00	-17.07	-
3	1.215	0.24	37.53	-	37.77	-	56.00	46.00	-18.23	-
4	3.195	0.28	34.37	-	34.65	-	56.00	46.00	-21.35	-
5	11.008	0.50	40.06	-	40.56	-	60.00	50.00	-19.44	-
6	23.086	0.68	37.97	-	38.65	-	60.00	50.00	-21.35	-

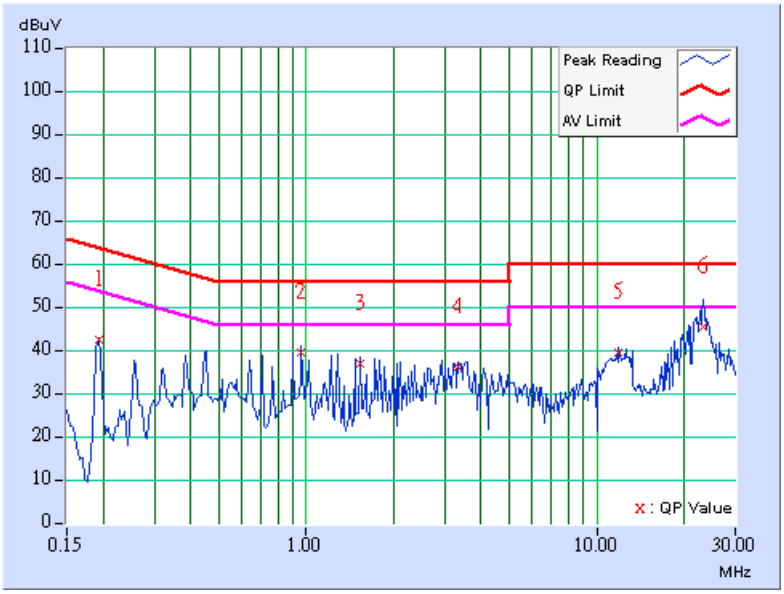
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



EUT	Wireless-G PCI Adapter	**MODEL**	WMP54Gv4
MODE	Channel 11	**6dB BANDWIDTH**	9kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Line (L)
ENVIRONMENTAL CONDITIONS	24deg. C, 64%RH, 991hPa	**TESTED BY**: Leo Hung	

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	0.193	0.10	41.62	-	41.72	-	63.91	53.91	-22.19	-
2	0.963	0.24	38.44	-	38.68	-	56.00	46.00	-17.32	-
3	1.535	0.26	35.88	-	36.14	-	56.00	46.00	-19.86	-
4	3.332	0.30	35.10	-	35.40	-	56.00	46.00	-20.60	-
5	11.906	0.59	38.62	-	39.21	-	60.00	50.00	-20.79	-
6	**23.395**	**1.08**	**44.62**	**-**	**45.70**	**-**	**60.00**	**50.00**	**-14.30**	**-**

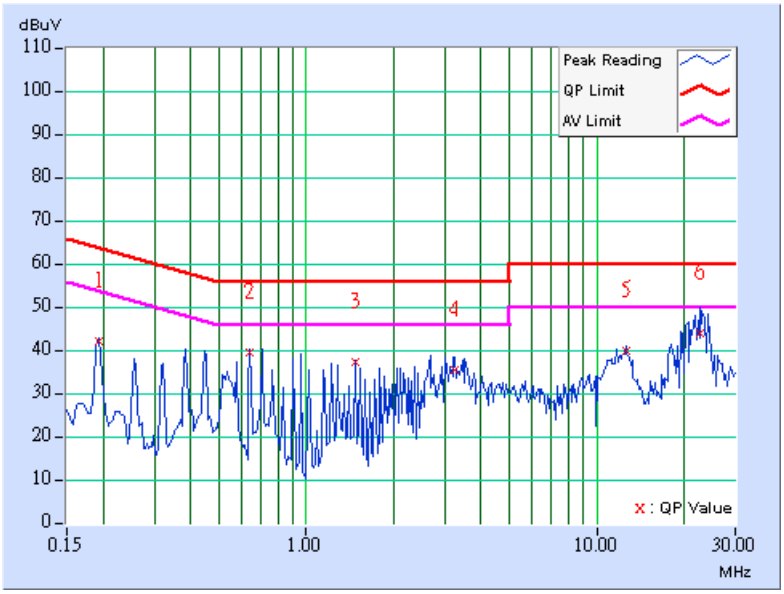
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



EUT	Wireless-G PCI Adapter	**MODEL**	WMP54Gv4
MODE	Channel 11	**6dB BANDWIDTH**	9kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**PHASE**	Neutral (N)
ENVIRONMENTAL CONDITIONS	24deg. C, 64%RH, 991hPa	**TESTED BY**: Leo Hung	

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	0.193	0.10	41.64	-	41.74	-	63.91	53.91	-22.17	-
2	0.642	0.16	38.83	-	38.99	-	56.00	46.00	-17.01	-
3	1.473	0.24	36.88	-	37.12	-	56.00	46.00	-18.88	-
4	3.262	0.28	34.99	-	35.27	-	56.00	46.00	-20.73	-
5	12.609	0.53	39.34	-	39.87	-	60.00	50.00	-20.13	-
6	22.668	0.68	43.51	-	44.19	-	60.00	50.00	-15.81	-

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	ESI7	838496/016	Feb. 09, 2005
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100041	Dec. 15, 2004
BILOG Antenna SCHWARZBECK	VULB9168	9168-155	Feb. 03, 2005
HORN Antenna SCHWARZBECK	BBHA 9120D	9120D-404	Feb. 03, 2005
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA 9170242	Feb. 23, 2005
Preamplifier Agilent	8447D	2944A10631	Jan. 15, 2005
Preamplifier Agilent	8449B	3008A01960	Jan. 22, 2005
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	219272/4	Mar. 04, 2005
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	219275/4	Mar. 04, 2005
Software ADT.	ADT_Radiated _V5.14	NA	NA
Antenna Tower inn-co GmbH	MA 4000	010303	NA
Antenna Tower Controller inn-co GmbH	CO2000	019303	NA
Turn Table ADT.	TT100.	TT93021704	NA
Turn Table Controller ADT.	SC100.	SC93021704	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 3.

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 IC4924-4.

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 mater semi-anechoic 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.

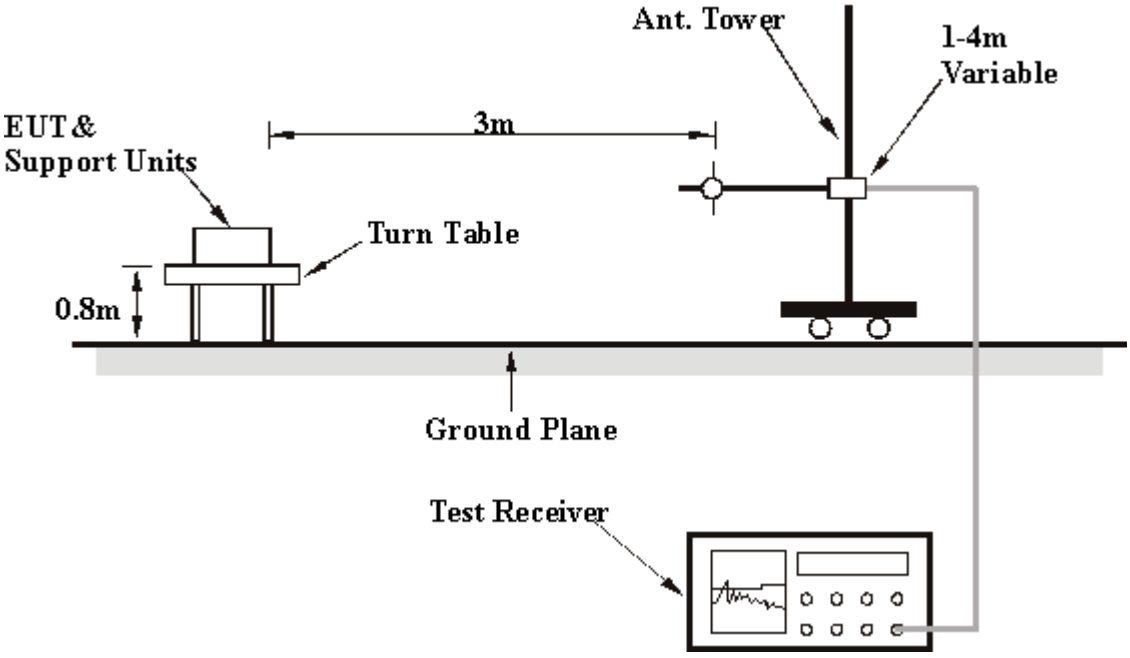
NOTE:

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-G PCI Adapter	**MODEL**	WMP54Gv4
MODE	Channel 11	**FREQUENCY RANGE**	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Quasi-Peak
ENVIRONMENTAL CONDITIONS	24 deg. C, 64 % RH, 991hPa	**TEST MODE**	Mode A
TEST BY	Leo Hung		

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	168.02	40.33 QP	43.50	-3.17	1.25 H	211	26.21	14.12
2	**199.12**	**41.48 QP**	**43.50**	**-2.02**	**1.50 H**	**289**	**30.14**	**11.34**
3	304.09	40.65 QP	46.00	-5.35	1.00 H	316	26.14	14.50
4	399.34	34.45 QP	46.00	-11.55	1.00 H	292	17.73	16.71
5	506.25	39.63 QP	46.00	-6.37	1.75 H	289	20.95	18.68
6	539.30	40.00 QP	46.00	-6.00	1.50 H	217	20.73	19.27
7	574.29	37.67 QP	46.00	-8.33	1.25 H	154	17.54	20.13
8	690.92	36.94 QP	46.00	-9.06	1.00 H	73	15.03	21.91
9	737.58	38.10 QP	46.00	-7.90	1.00 H	190	15.17	22.93
10	809.50	34.80 QP	46.00	-11.20	1.00 H	25	11.26	23.55

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	31.94	31.92 QP	40.00	-8.08	1.00 V	250	17.91	14.01
2	99.98	36.76 QP	43.50	-6.74	1.25 V	97	25.85	10.91
3	168.02	33.95 QP	43.50	-9.55	1.25 V	115	19.83	14.12
4	302.14	39.83 QP	46.00	-6.17	1.50 V	313	25.37	14.46
5	342.97	34.35 QP	46.00	-11.65	1.00 V	241	18.98	15.36
6	399.34	35.51 QP	46.00	-10.49	1.25 V	55	18.80	16.71
7	506.25	39.64 QP	46.00	-6.36	1.00 V	214	20.96	18.68
8	539.30	40.00 QP	46.00	-6.00	1.00 V	163	20.73	19.27
9	687.03	34.69 QP	46.00	-11.31	1.75 V	13	12.82	21.87
10	875.59	36.78 QP	46.00	-9.22	1.75 V	343	12.40	24.37

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	Wireless-G PCI Adapter	MODEL	WMP54Gv4
INPUT POWER (SYSTEM)	120Vac, 60 Hz	FREQUENCY RANGE	Below 1000MHz
MODE	Channel 11	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	24 deg. C, 64 % RH, 991hPa	TEST MODE	Mode B
TESTED BY	Leo Hung		

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	181.62	39.03 QP	43.50	-4.47	1.75 H	175	26.27	12.77
2	240.03	39.17 QP	46.00	-6.83	1.00 H	9	26.21	12.97
3	269.10	37.19 QP	46.00	-8.81	1.00 H	286	23.56	13.63
4	314.99	21.29 QP	46.00	-24.71	1.00 H	343	6.54	14.74
5	393.36	31.74 QP	46.00	-14.26	1.00 H	171	15.17	16.57
6	506.25	39.99 QP	46.00	-6.01	1.75 H	181	21.31	18.68
7	539.30	41.53 QP	46.00	-4.47	1.50 H	91	22.26	19.27
8	574.29	38.95 QP	46.00	-7.05	1.25 H	169	18.83	20.13
9	819.22	38.33 QP	46.00	-7.67	1.00 H	226	14.70	23.63

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	33.79 QP	40.00	-6.21	1.00 V	313	19.52	14.27
2	120.05	31.85 QP	43.50	-11.65	2.07 V	268	18.99	12.86
3	168.02	35.55 QP	43.50	-7.95	1.25 V	247	21.43	14.12
4	240.06	34.18 QP	46.00	-11.82	1.00 V	141	21.21	12.97
5	279.09	24.62 QP	46.00	-21.38	1.15 V	225	10.56	14.06
6	399.34	33.41 QP	46.00	-12.59	1.25 V	199	16.70	16.71
7	502.36	38.72 QP	46.00	-7.28	1.00 V	223	20.11	18.61
8	537.35	37.05 QP	46.00	-8.95	1.25 V	307	17.82	19.23
9	589.84	29.34 QP	46.00	-16.66	1.25 V	169	8.79	20.55
10	687.03	35.63 QP	46.00	-10.37	1.00 V	277	13.76	21.87
11	883.77	35.58 QP	46.00	-10.42	1.63 V	259	11.06	24.52

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.

4.2.8 TEST RESULTS (A)

EUT	Wireless-G PCI Adapter	**MODEL**	WMP54Gv4
CHANNEL	Channel 1	**MODE**	CCK
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**FREQUENCY RANGE**	1 ~25GHz
ENVIRONMENTAL CONDITIONS	26 deg. C, 65 % RH, 991hPa	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
TEST MODE	Mode A	**TESTED BY**	Allen Chang

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	2038.00	50.44 PK	74.00	-23.56	1.08 H	47	18.49	31.95
1	2038.00	46.96 AV	54.00	-7.04	1.08 H	47	15.01	31.95
2	2388.00	31.77 PK	74.00	-42.23	1.00 H	120	-1.58	33.35
2	2388.00	24.26 AV	54.00	-29.74	1.00 H	120	-9.09	33.35
3	*2412.00	92.92 PK			1.00 H	120	59.48	33.44
3	*2412.00	85.31 AV			1.00 H	120	51.87	33.44
4	4824.00	51.69 PK	74.00	-22.31	1.26 H	337	10.73	40.96
4	4824.00	39.47 AV	54.00	-14.53	1.26 H	337	-1.49	40.96

NTENNA 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	2038.00	48.96 PK	74.00	-25.04	1.68 V	29	17.01	31.95
1	2038.00	44.93 AV	54.00	-9.07	1.68 V	29	12.98	31.95
2	2388.00	47.05 PK	74.00	-26.95	1.00 V	119	13.70	33.35
2	2388.00	39.62 AV	54.00	-14.38	1.00 V	119	6.27	33.35
3	*2412.00	108.20 PK			1.00 V	119	74.76	33.44
3	*2412.00	100.77 AV			1.00 V	119	67.33	33.44
4	4824.00	52.28 PK	74.00	-21.72	1.32 V	334	11.32	40.96
4	4824.00	39.72 AV	54.00	-14.28	1.32 V	334	-1.24	40.96

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-G PCI Adapter	**MODEL**	WMP54Gv4
CHANNEL	Channel 6	**MODE**	CCK
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**FREQUENCY RANGE**	1 ~25GHz
ENVIRONMENTAL CONDITIONS	26 deg. C, 65 % RH, 991hPa	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
TEST MODE	Mode A	**TESTED BY**	Allen Chang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3M

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	2063.00	51.71 PK	74.00	-22.29	1.04 H	49	19.67	32.04
1	2063.00	48.76 AV	54.00	-5.24	1.04 H	49	16.72	32.04
2	*2437.00	91.38 PK			1.05 H	274	57.85	33.53
2	*2437.00	83.79 AV			1.05 H	274	50.26	33.53
3	2494.20	36.51 PK	74.00	-37.49	1.05 H	274	2.77	33.74
3	2494.20	28.92 AV	54.00	-25.08	1.05H	274	-4.82	33.74
4	4874.00	52.61 PK	74.00	-21.39	1.04 H	52	11.58	41.03
4	4874.00	38.62 AV	54.00	-15.38	1.04 H	52	-2.41	41.03

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3M

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	2063.00	51.09 PK	74.00	-22.91	1.90 V	276	19.05	32.04
1	2063.00	47.44 AV	54.00	-6.56	1.90 V	276	15.40	32.04
2	*2437.00	105.68 PK			1.25 V	278	72.15	33.53
2	*2437.00	98.16 AV			1.25 V	278	64.63	33.53
3	2494.20	50.81 PK	74.00	-23.19	1.25 V	278	17.07	33.74
3	2494.20	43.29 AV	54.00	-10.71	1.25 V	278	9.55	33.74
4	4874.00	53.55 PK	74.00	-20.45	1.11 V	20	12.52	41.03
4	4874.00	40.26 AV	54.00	-13.74	1.11 V	20	-0.77	41.03

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-G PCI Adapter	MODEL	WMP54Gv4
CHANNEL	Channel 11	MODE	CCK
INPUT POWER (SYSTEM)	120Vac, 60 Hz	FREQUENCY RANGE	1 ~25GHz
ENVIRONMENTAL CONDITIONS	26 deg. C, 65 % RH, 991hPa	DETECTOR FUNCTION	Peak(PK) Average (AV)
TEST MODE	Mode A	TESTED BY	Allen Chang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3M

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	2088.00	52.44 PK	74.00	-21.56	1.00 H	50	20.31	32.13
1	2088.00	49.37 AV	54.00	-4.63	1.00 H	50	17.24	32.13
2	*2462.00	92.28 PK			1.04 H	272	58.66	33.62
2	*2462.00	84.93 AV			1.04 H	272	51.31	33.62
3	2483.50	30.69 PK	74.00	-43.31	1.04 H	272	-3.01	33.70
3	2483.50	23.34 AV	54.00	-30.66	1.04 H	272	-10.36	33.70
4	4924.00	51.66 PK	74.00	-22.34	1.13 H	341	10.43	41.23
4	4924.00	38.92 AV	54.00	-15.08	1.13 H	341	-2.31	41.23

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3M

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	2088.00	49.42 PK	74.00	-24.58	1.12 V	348	17.29	32.13
1	2088.00	45.81 AV	54.00	-8.19	1.12 V	348	13.68	32.13
2	*2462.00	107.16 PK			1.00 V	141	73.54	33.62
2	*2462.00	99.46 AV			1.00 V	141	65.84	33.62
3	2483.50	45.57 PK	74.00	-28.43	1.00 V	141	11.87	33.70
3	2483.50	37.87 AV	54.00	-16.13	1.00 V	141	4.17	33.70
4	4924.00	55.77 PK	74.00	-18.23	1.43 V	19	14.54	41.23
4	4924.00	43.09 AV	54.00	-10.91	1.43 V	19	1.86	41.23

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-G PCI Adapter	**MODEL**	WMP54Gv4
CHANNEL	Channel 1	**MODE**	CCK
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**FREQUENCY RANGE**	1 ~25GHz
ENVIRONMENTAL CONDITIONS	26 deg. C, 65 % RH, 991hPa	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
TEST MODE	Mode B	**TESTED BY**	Allen Chang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3M

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	2038.00	47.96 PK	74.00	-26.04	1.27 H	54	16.01	31.95
1	2038.00	42.41 AV	54.00	-11.59	1.27 H	54	10.46	31.95
2	2388.00	36.07 PK	74.00	-37.93	1.84 H	53	2.72	33.35
2	2388.00	28.56 AV	54.00	-25.44	1.84 H	53	2.72	33.35
3	*2412.00	97.94 PK			1.84 H	53	64.50	33.44
3	*2412.00	90.43 AV			1.84 H	53	56.99	33.44
4	4824.00	51.15 PK	74.00	-22.85	1.02 H	99	10.19	40.96
4	4824.00	38.44 AV	54.00	-15.56	1.02 H	99	-2.52	40.96

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3M

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	2038.00	46.28 PK	74.00	-27.72	1.39 V	349	14.33	31.95
1	2038.00	40.02 AV	54.00	-13.98	1.39 V	349	8.07	31.95
2	2388.00	47.95 PK	74.00	-26.05	1.12 V	338	14.60	33.35
2	2388.00	40.27 AV	54.00	-13.73	1.12 V	338	6.92	33.35
3	*2412.00	109.82 PK			1.12 V	338	76.38	33.44
3	*2412.00	102.14 AV			1.12 V	338	68.70	33.44
4	4824.00	52.99 PK	74.00	-21.01	1.51 V	116	12.03	40.96
4	4824.00	40.29 AV	54.00	-13.71	1.51 V	116	-0.67	40.96

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-G PCI Adapter	**MODEL**	WMP54Gv4
CHANNEL	Channel 6	**MODE**	CCK
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**FREQUENCY RANGE**	1 ~25GHz
ENVIRONMENTAL CONDITIONS	26 deg. C, 65 % RH, 991hPa	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
TEST MODE	Mode B	**TESTED BY**	Allen Chang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3M

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	2063.00	48.47 PK	74.00	-25.53	1.25 H	56	16.43	32.04
1	2063.00	43.81 AV	54.00	-10.19	1.25 H	56	11.77	32.04
2	*2437.00	98.15 PK			1.80 H	55	64.62	33.53
2	*2437.00	90.57 AV			1.80 H	55	57.04	33.53
3	2494.20	44.50 PK	74.00	-29.50	1.80 H	55	10.76	33.74
3	2494.20	36.92 AV	54.00	-17.08	1.80 H	55	3.18	33.74
4	4874.00	51.77 PK	74.00	-22.23	1.08 H	345	10.74	41.03
4	4874.00	38.82 AV	54.00	-15.18	1.08 H	345	-2.21	41.03

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3M

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	2063.00	49.34 PK	74.00	-24.66	1.88 V	177	17.30	32.04
1	2063.00	45.05 AV	54.00	-8.95	1.88 V	177	13.01	32.04
2	*2437.00	109.56 PK			1.34 V	77	76.03	33.53
2	*2437.00	101.66 AV			1.34 V	77	68.13	33.53
3	2494.20	55.91 PK	74.00	-18.09	1.34 V	77	22.17	33.74
3	2494.20	48.01 AV	54.00	-5.99	1.34 V	77	14.27	33.74
4	4874.00	53.63 PK	74.00	-20.37	1.61 V	180	12.60	41.03
4	4874.00	41.01 AV	54.00	-12.99	1.61 V	180	-0.02	41.03

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-G PCI Adapter	MODEL	WMP54Gv4
CHANNEL	Channel 11	MODE	CCK
INPUT POWER (SYSTEM)	120Vac, 60 Hz	FREQUENCY RANGE	1 ~25GHz
ENVIRONMENTAL CONDITIONS	26 deg. C, 65 % RH, 991hPa	DETECTOR FUNCTION	Peak(PK) Average (AV)
TEST MODE	Mode B	TESTED BY	Allen Chang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3M

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	2088.00	47.21 PK	74.00	-26.79	1.00 H	20	15.08	32.13
1	2088.00	42.18 AV	54.00	-11.82	1.00 H	20	10.05	32.13
2	*2462.00	98.18 PK			1.15 H	311	64.56	33.62
2	*2462.00	90.75 AV			1.15 H	311	57.13	33.62
3	2486.70	38.12 PK	74.00	-35.88	1.16 H	311	4.41	33.71
3	2486.70	30.69 AV	54.00	-23.31	1.16 H	311	-3.02	33.71
4	4924.00	51.89 PK	74.00	-22.11	1.00 H	58	10.66	41.23
4	4924.00	39.60 AV	54.00	-14.40	1.00 H	58	-1.63	41.23

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3M

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	2088.00	50.10 PK	74.00	-23.90	2.24 V	180	17.97	32.13
1	2088.00	46.51 AV	54.00	-7.49	2.24 V	180	14.38	32.13
2	*2462.00	109.87 PK			1.15 V	48	76.25	33.62
2	*2462.00	102.28 AV			1.15 V	48	68.66	33.62
3	2486.70	49.81 PK	74.00	-24.19	1.15 V	48	16.10	33.71
3	2486.70	42.22 AV	54.00	-11.78	1.15 V	48	8.51	33.71
4	4924.00	56.57 PK	74.00	-17.43	1.73 V	214	15.34	41.23
4	4924.00	43.53 AV	54.00	-10.47	1.73 V	214	2.30	41.23

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.

4.2.9 TEST RESULTS (B)

EUT	Wireless-G PCI Adapter	**MODEL**	WMP54Gv4
CHANNEL	Channel 1	**MODE**	OFDM
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**FREQUENCY RANGE**	1 ~25GHz
ENVIRONMENTAL CONDITIONS	26 deg. C, 65 % RH, 991hPa	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
TEST MODE	Mode A	**TESTED BY**	Allen Chang

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	2038.00	50.17 PK	74.00	-23.83	1.05 H	47	18.22	31.95
1	2038.00	46.93 AV	54.00	-7.07	1.05 H	47	14.98	31.95
2	2389.60	34.64 PK	74.00	-39.36	1.67 H	35	1.29	33.35
2	2389.60	25.78 AV	54.00	-28.22	1.67 H	35	-7.57	33.35
3	*2412.00	90.64 PK			1.67 H	35	57.20	33.44
3	*2412.00	81.78 AV			1.67 H	35	48.34	33.44
4	4824.00	51.49 PK	74.00	-22.51	1.05 H	205	10.53	40.96
4	4824.00	39.49 AV	54.00	-14.51	1.05 H	205	-1.47	40.96

NTENNA 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	2038.00	49.74 PK	74.00	-24.26	1.00 V	112	17.79	31.95
1	2038.00	45.78 AV	54.00	-8.22	1.00 V	112	13.83	31.95
2	2389.60	48.12 PK	74.00	-25.88	1.00 V	122	14.77	33.35
2	2389.60	39.22 AV	54.00	-14.78	1.00 V	122	5.87	33.35
3	*2412.00	104.12 PK			1.00 V	122	70.68	33.44
3	*2412.00	94.22 AV			1.00 V	122	60.78	33.44
4	4824.00	51.48 PK	74.00	-22.52	1.00 V	233	10.52	40.96
4	4824.00	38.72 AV	54.00	-15.28	1.00 V	233	-2.24	40.96

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-G PCI Adapter	**MODEL**	WMP54Gv4
CHANNEL	Channel 6	**MODE**	OFDM
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**FREQUENCY RANGE**	1 ~25GHz
ENVIRONMENTAL CONDITIONS	26 deg. C, 65 % RH, 991hPa	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
TEST MODE	Mode A	**TESTED BY**	Allen Chang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3M

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	2063.00	50.78 PK	74.00	-23.22	1.34 H	317	18.74	32.04
1	2063.00	47.40 AV	54.00	-6.60	1.34 H	317	15.36	32.04
2	*2437.00	89.89 PK			1.65 H	35	56.36	33.53
2	*2437.00	80.73 AV			1.65 H	35	47.20	33.53
3	2494.00	38.32 PK	74.00	-35.68	1.65 H	35	4.58	33.74
3	2494.00	29.06 AV	54.00	-24.94	1.65 H	35	-4.68	33.74
4	4874.00	51.28 PK	74.00	-22.72	1.02 H	62	10.25	41.03
4	4874.00	38.58 AV	54.00	-15.42	1.02 H	62	-2.45	41.03

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3M

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	2063.00	49.83 PK	74.00	-24.17	1.36 V	339	17.79	32.04
1	2063.00	46.17 AV	54.00	-7.83	1.36 V	339	14.13	32.04
2	*2437.00	104.35 PK			1.00 V	19	70.82	33.53
2	*2437.00	94.92 AV			1.00 V	19	61.39	33.53
3	2494.00	52.78 PK	74.00	-21.22	1.00 V	19	19.04	33.74
3	2494.00	43.35 AV	54.00	-10.65	1.00 V	19	9.61	33.74
4	4874.00	51.48 PK	74.00	-22.52	1.36 V	32	10.45	41.03
4	4874.00	39.18 AV	54.00	-14.82	1.36 V	32	-1.85	41.03

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-G PCI Adapter	**MODEL**	WMP54Gv4
CHANNEL	Channel 11	**MODE**	OFDM
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**FREQUENCY RANGE**	1 ~25GHz
ENVIRONMENTAL CONDITIONS	26 deg. C, 65 % RH, 991hPa	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
TEST MODE	Mode A	**TESTED BY**	Allen Chang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3M

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	2088.00	52.39 PK	74.00	-21.61	1.02 H	50	20.26	32.13
1	2088.00	49.29 AV	54.00	-4.71	1.02 H	50	17.16	32.13
2	*2462.00	91.23 PK			1.24 H	241	57.61	33.62
2	*2462.00	82.03 AV			1.24 H	241	48.41	33.62
3	2483.50	34.84 PK	74.00	-39.16	1.24 H	241	1.14	33.70
3	2483.50	25.64 AV	54.00	-28.36	1.24 H	241	-8.06	33.70
4	4924.00	51.55 PK	74.00	-22.45	1.11 H	254	10.32	41.23
4	4924.00	38.99 AV	54.00	-15.01	1.11 H	254	-2.24	41.23

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3M

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	2088.00	51.47 PK	74.00	-22.53	1.00 V	111	19.34	32.13
1	2088.00	48.22 AV	54.00	-5.78	1.00 V	111	16.09	32.13
2	*2462.00	104.93 PK			1.00 V	120	71.31	33.62
2	*2462.00	95.90 AV			1.00 V	120	62.28	33.62
3	2483.50	48.54 PK	74.00	-25.46	1.00 V	120	14.84	33.70
3	2483.50	39.51 AV	54.00	-14.49	1.00 V	120	5.81	33.70
4	4924.00	53.36 PK	74.00	-20.64	1.34 V	175	12.13	41.23
4	4924.00	40.14 AV	54.00	-13.86	1.34 V	175	-1.09	41.23

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-G PCI Adapter	**MODEL**	WMP54Gv4
CHANNEL	Channel 1	**MODE**	OFDM
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**FREQUENCY RANGE**	1 ~25GHz
ENVIRONMENTAL CONDITIONS	26 deg. C, 65 % RH, 991hPa	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
TEST MODE	Mode B	**TESTED BY**	Allen Chang

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	2038.00	46.15 PK	74.00	-27.85	1.00 H	20	14.20	31.95
1	2038.00	39.59 AV	54.00	-14.41	1.00 H	20	7.64	31.95
2	2390.00	37.33 PK	74.00	-36.67	1.83 H	54	3.97	33.36
2	2390.00	28.21 AV	54.00	-25.79	1.83 H	54	-5.15	33.36
3	*2412.00	94.46 PK			1.83 H	54	61.02	33.44
3	*2412.00	85.34 AV			1.83 H	54	51.90	33.44
4	4824.00	51.48 PK	74.00	-22.52	1.13 H	95	10.52	40.96
4	4824.00	38.44 AV	54.00	-15.56	1.13 H	95	-2.52	40.96

NTENNA 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	2038.00	48.01 PK	74.00	-25.99	2.01 V	33	16.06	31.95
1	2038.00	42.60 AV	54.00	-11.40	2.01 V	33	10.65	31.95
2	2390.00	50.03 PK	74.00	-23.97	1.13 V	75	16.67	33.36
2	2390.00	40.74 AV	54.00	-13.26	1.13 V	75	7.38	33.36
3	*2412.00	107.16 PK			1.13 V	75	73.72	33.44
3	*2412.00	97.87 AV			1.13 V	75	64.43	33.44
4	4824.00	51.35 PK	74.00	-22.65	1.00 V	301	10.39	40.96
4	4824.00	38.94 AV	54.00	-15.06	1.00 V	301	-2.02	40.96

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-G PCI Adapter	**MODEL**	WMP54Gv4
CHANNEL	Channel 6	**MODE**	OFDM
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**FREQUENCY RANGE**	1 ~25GHz
ENVIRONMENTAL CONDITIONS	26 deg. C, 65 % RH, 991hPa	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
TEST MODE	Mode B	**TESTED BY**	Allen Chang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3M

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	2063.00	48.34 PK	74.00	-25.66	1.25 H	57	16.30	32.04
1	2063.00	43.38 AV	54.00	-10.62	1.25 H	57	11.34	32.04
2	*2437.00	93.13 PK			1.55 H	38	59.60	33.53
2	*2437.00	83.91 AV			1.55 H	38	50.38	33.53
3	2494.00	43.42 PK	74.00	-30.58	1.55 H	38	9.68	33.74
3	2494.00	34.20 AV	54.00	-19.80	1.55 H	38	0.46	33.74
4	4824.00	51.42 PK	74.00	-22.58	1.01 H	124	10.46	40.96
4	4824.00	38.42 AV	54.00	-15.58	1.01 H	124	-2.54	40.96

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3M

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	2063.00	48.89 PK	74.00	-25.11	2.13 V	186	16.85	32.04
1	2063.00	44.70 AV	54.00	-9.30	2.13 V	186	12.66	32.04
2	*2437.00	107.19 PK			1.10 V	357	73.66	33.53
2	*2437.00	98.21 AV			1.10 V	357	64.68	33.53
3	2494.00	57.48 PK	74.00	-16.52	1.10 V	357	23.74	33.74
3	2494.00	48.50 AV	54.00	-5.50	1.10 V	357	14.76	33.74
4	4874.00	52.59 PK	74.00	-21.41	1.73 V	201	11.56	41.03
4	4874.00	39.91 AV	54.00	-14.09	1.73 V	201	-1.12	41.03

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-G PCI Adapter	**MODEL**	WMP54Gv4
CHANNEL	Channel 11	**MODE**	OFDM
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**FREQUENCY RANGE**	1 ~25GHz
ENVIRONMENTAL CONDITIONS	26 deg. C, 65 % RH, 991hPa	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
TEST MODE	Mode B	**TESTED BY**	Allen Chang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3M

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	2088.00	48.23 PK	74.00	-25.77	1.43 H	294	16.10	32.13
1	2088.00	43.40 AV	54.00	-10.60	1.43 H	294	11.27	32.13
2	*2462.00	96.30 PK			1.77 H	54	62.68	33.62
2	*2462.00	87.40 AV			1.77 H	54	53.78	33.62
3	2462.00	41.10 PK	74.00	-32.90	1.77 H	54	7.48	33.62
3	2462.00	32.20 AV	54.00	-21.80	1.77 H	54	-1.42	33.62
4	4924.00	51.28 PK	74.00	-22.72	1.05 H	102	10.05	41.23
4	4924.00	38.86 AV	54.00	-15.14	1.05 H	102	-2.37	41.23

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3M

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	2088.00	50.03 PK	74.00	-23.97	2.14 V	180	17.90	32.13
1	2088.00	46.05 AV	54.00	-7.95	2.14 V	180	13.92	32.13
2	*2462.00	107.20 PK			1.12 V	49	73.58	33.62
2	*2462.00	98.15 AV			1.12 V	49	64.53	33.62
3	2483.90	52.00 PK	74.00	-22.00	1.12 V	49	18.30	33.70
3	2483.90	42.95 AV	54.00	-11.05	1.12 V	49	9.25	33.70
4	4924.00	55.71 PK	74.00	-18.29	1.60 V	204	14.48	41.23
4	4924.00	41.55 AV	54.00	-12.45	1.60 V	204	0.32	41.23

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 0.5 MHz.

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.

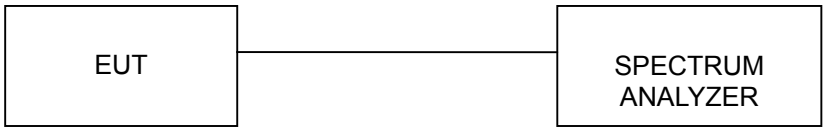
4.3.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 100 kHz 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

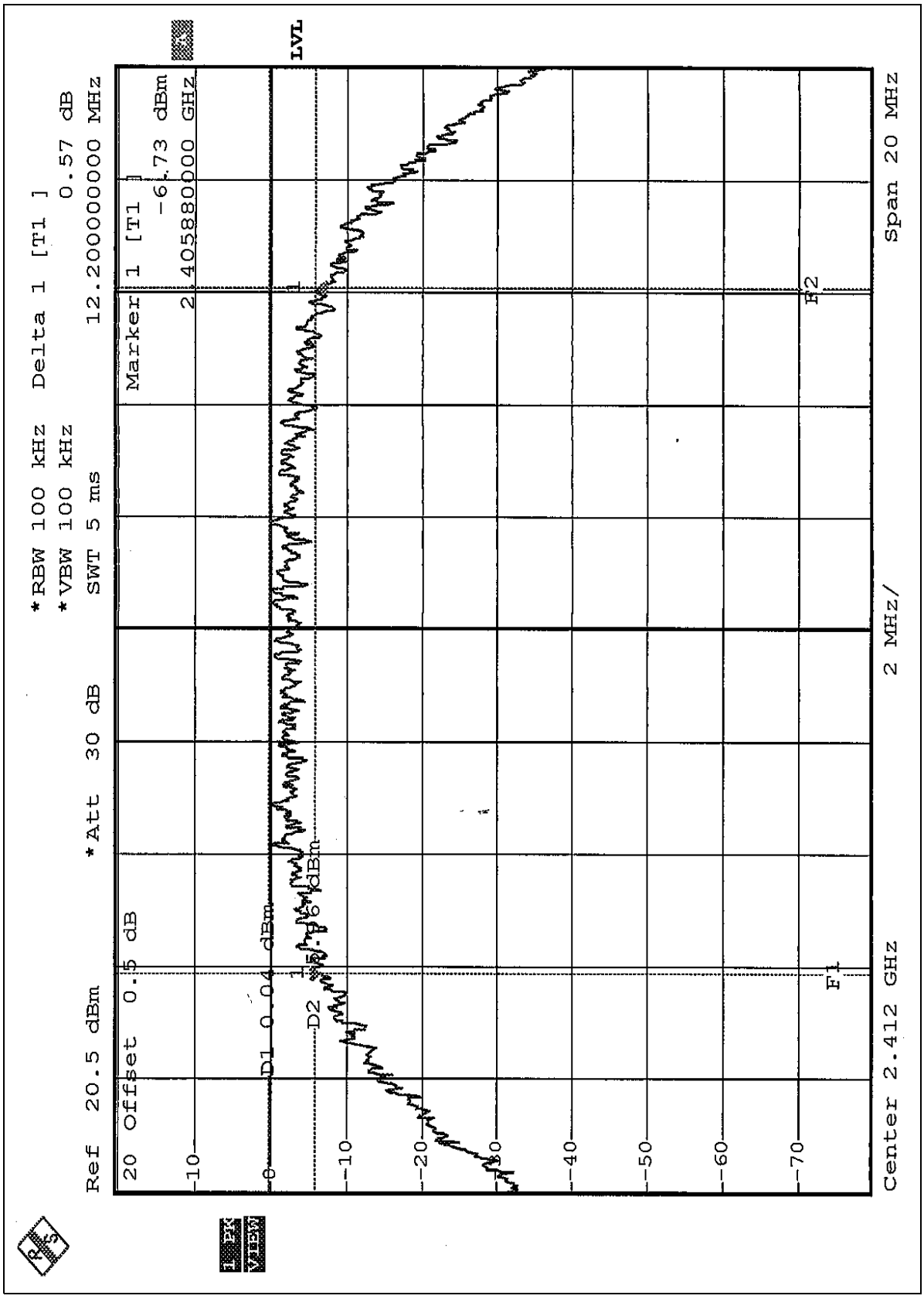
The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.3.7 TEST RESULTS (A)

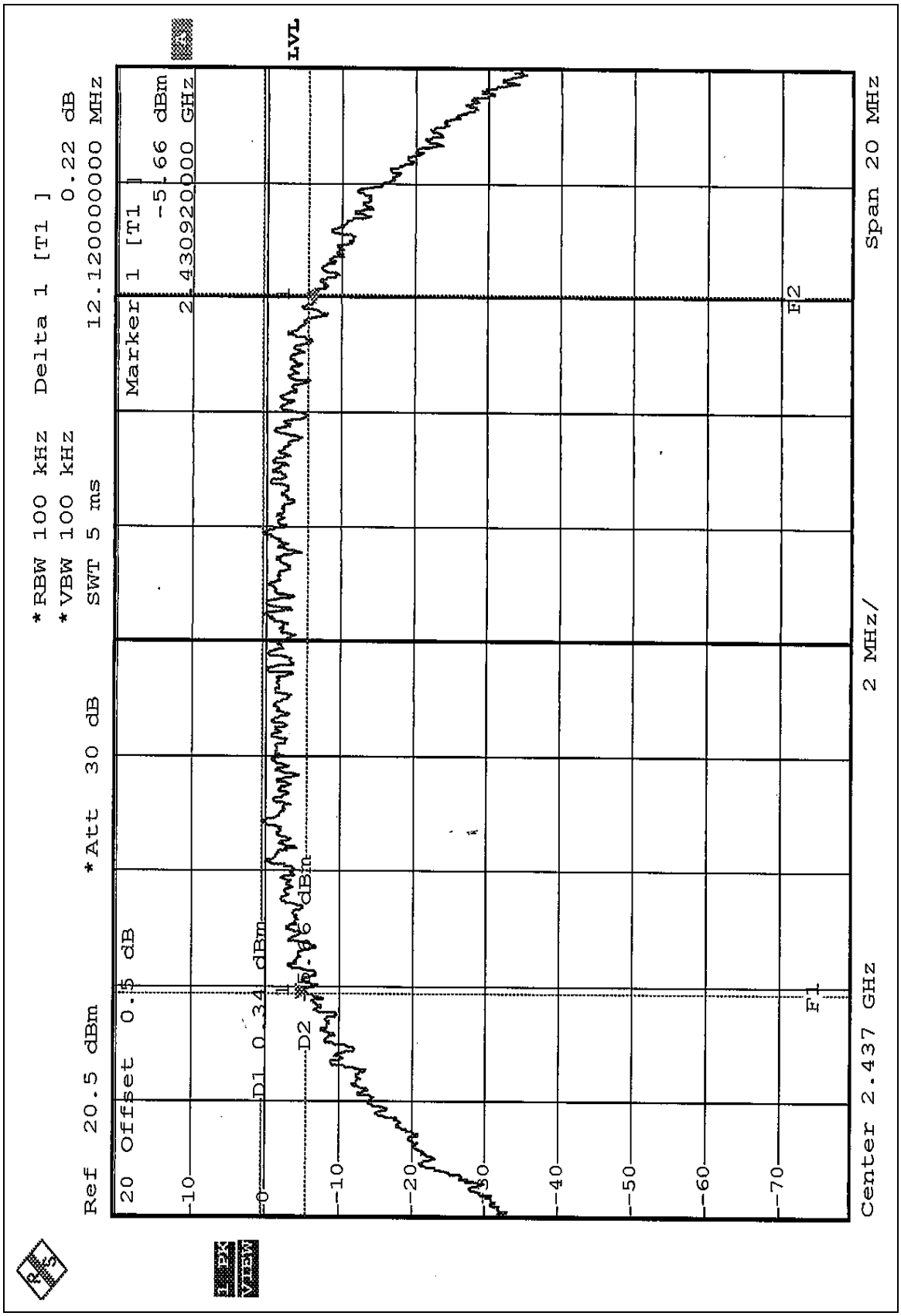
EUT	Wireless-G PCI Adapter	**MODEL**	WMP54Gv4
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**MODE**	CCK
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa	**TESTED BY**:	Allen Chang

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS/FAIL
1	2412	12.20	0.5	PASS
6	2437	12.12	0.5	PASS
11	2462	12.00	0.5	PASS

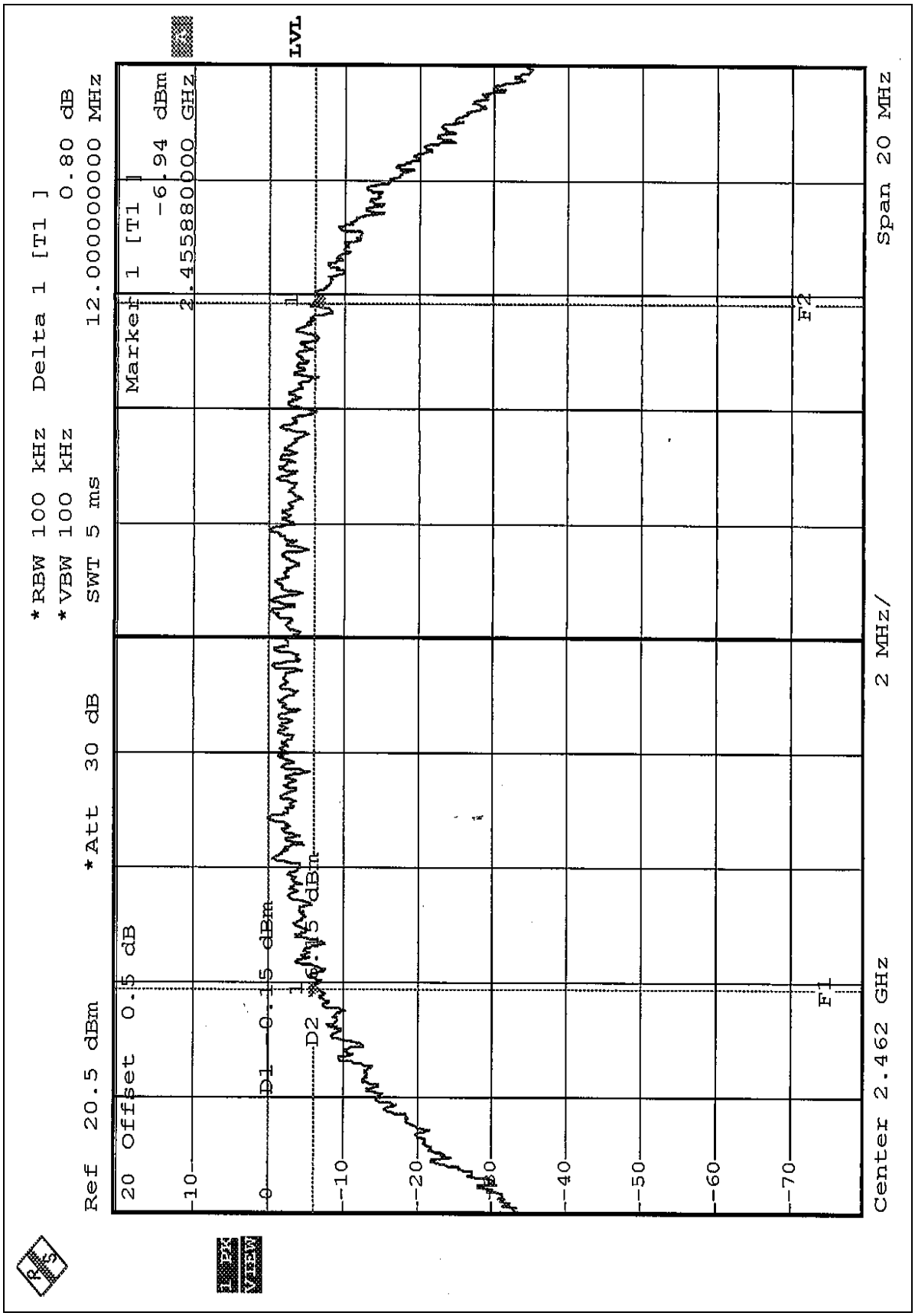
CH1


*RBW 100 kHz
*VBW 100 kHz
SWT 5 ms
Delta 1 [T1]
0.57 dB
12.200000000 MHz
Marker 1 [T1]
-6.73 dBm
2.405880000 GHz
*Att 30 dB
Ref 20.5 dBm
Offset 0.5 dB
D1 0.04 dBm
D2 -5.96 dBm
Center 2.412 GHz
2 MHz/
Span 20 MHz
F1
F2
1 PK
VIEW

CH6


RBW 100 kHz
VBW 100 kHz
SWT 5 ms
Delta 1 [T1]
0.22 dB
12.12000000 MHz
Marker 1 [T1]
-5.66 dBm
2.43092000 GHz
Ref 20.5 dBm
Offset 0.5 dB
Att 30 dB
D1 0.34 dBm
D2 -5.6 dBm
Center 2.437 GHz
2 MHz/
Span 20 MHz
F1
F2
LVL
PK
VIEW

CH11

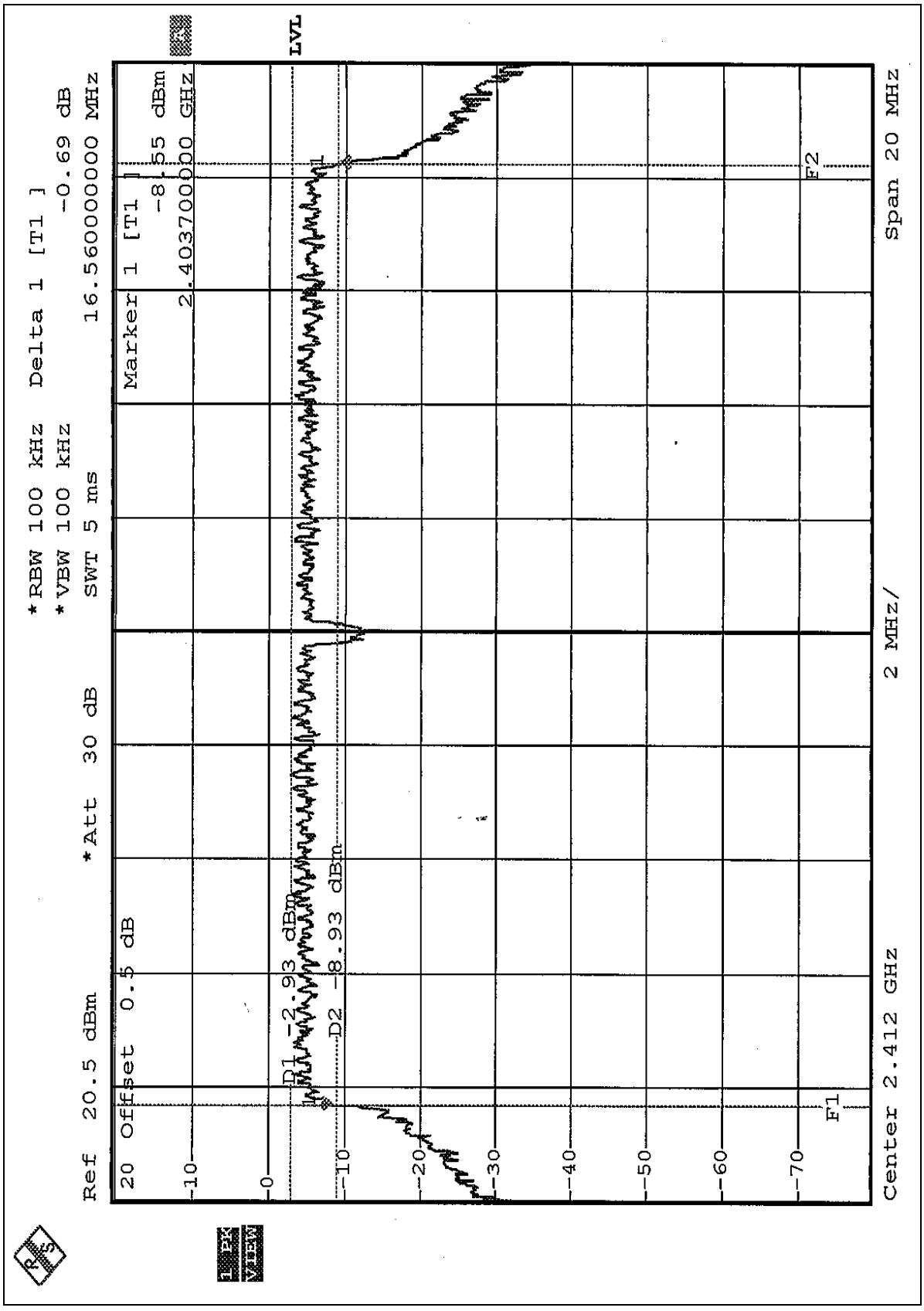

Ref 20.5 dBm
20 Offset 0.5 dB
*Att 30 dB
*RBW 100 kHz
*VBW 100 kHz
SWT 5 ms
Delta 1 [T1]
0.80 dB
12.000000000 MHz
Marker 1 [T1]
-6.94 dBm
2.455880000 GHz
D1 -0.15 dBm
D2 -30.15 dBm
Center 2.462 GHz
2 MHz/
Span 20 MHz
F1
F2
VIEW
PK

4.3.8 TEST RESULTS (B)

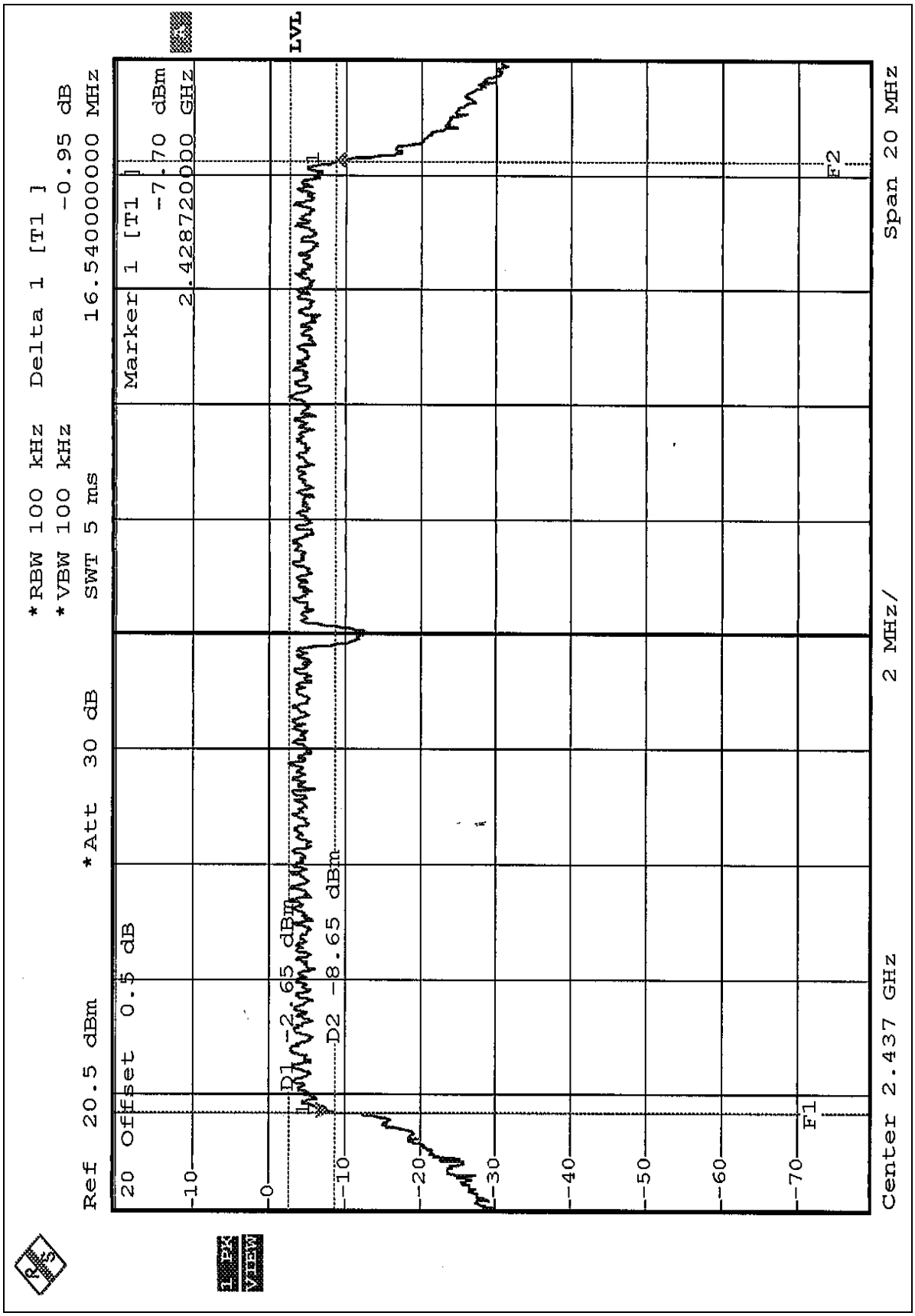
EUT	Wireless-G PCI Adapter	**MODEL**	WMP54Gv4
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**MODE**	OFDM
ENVIRONMENTAL CONDITIONS	22deg. C, 62%RH, 991hPa	**TESTED BY**:	Allen Chang

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS/FAIL
1	2412	16.56	0.5	PASS
6	2437	16.54	0.5	PASS
11	2462	16.52	0.5	PASS

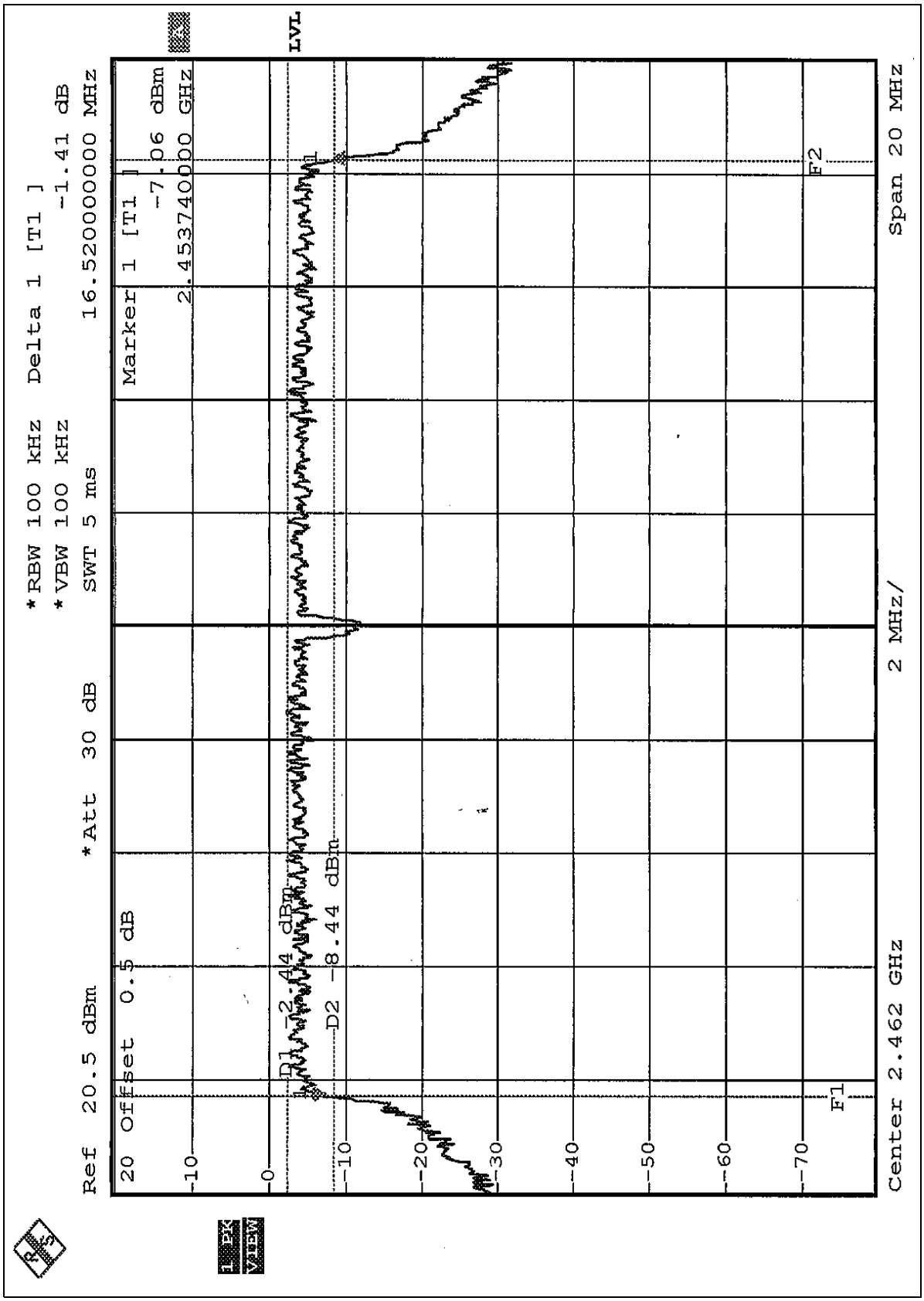
CH1


RBW 100 kHz
VBW 100 kHz
SWT 5 ms
Delta 1 [T1]
-0.69 dB
16.560000000 MHz
Marker 1 [T1]
-8.55 dBm
2.403700000 GHz
Ref 20.5 dBm
Offset 0.5 dB
Att 30 dB
D1 -2.93 dBm
D2 -8.93 dBm
Center 2.412 GHz
2 MHz/
Span 20 MHz
F1
F2
LVL
PK
VIEW

CH6


Ref 20.5 dBm
20 Offset 0.5 dB
*Att 30 dB
*RBW 100 kHz
*VBW 100 kHz
SWT 5 ms
Delta 1 [T1]
-0.95 dB
16.540000000 MHz
Marker 1 [T1]
-7.70 dBm
2.428720000 GHz
D1 -2.65 dBm
D2 -8.65 dBm
LVL
F1
F2
Center 2.437 GHz
2 MHz/
Span 20 MHz
1 PK
VIEW

CH11


RBW 100 kHz
VBW 100 kHz
SWT 5 ms
Delta 1 [T1]
-1.41 dB
16.520000000 MHz
Marker 1 [T1]
-7.06 dBm
2.453740000 GHz
Att 30 dB
Offset 0.5 dB
Ref 20.5 dBm
Center 2.462 GHz
2 MHz/
Span 20 MHz
D1 2.44 dBm
D2 -8.44 dBm
F1
F2
LVL
1 PK
VIEW

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. 01, 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 peak 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 peak 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 4.3.6

4.4.7 TEST RESULTS (A)

EUT	Wireless-G PCI Adapter	**MODEL**	WMP54Gv4
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**MODE**	CCK
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa	**TEST MODE**	Mode A & B
TESTED BY:	Allen Chang		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	13.13	29	PASS
6	2437	13.22	29	PASS
11	2462	13.12	29	PASS

4.4.8 TEST RESULTS (B)

EUT	Wireless-G PCI Adapter	**MODEL**	WMP54Gv4
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**MODE**	OFDM
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa	**TEST MODE**	Mode A & B
TESTED BY:	Allen Chang		

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	13.08	29	PASS
6	2437	13.14	29	PASS
11	2462	13.35	29	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 3kHz RBW and 30kHz 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

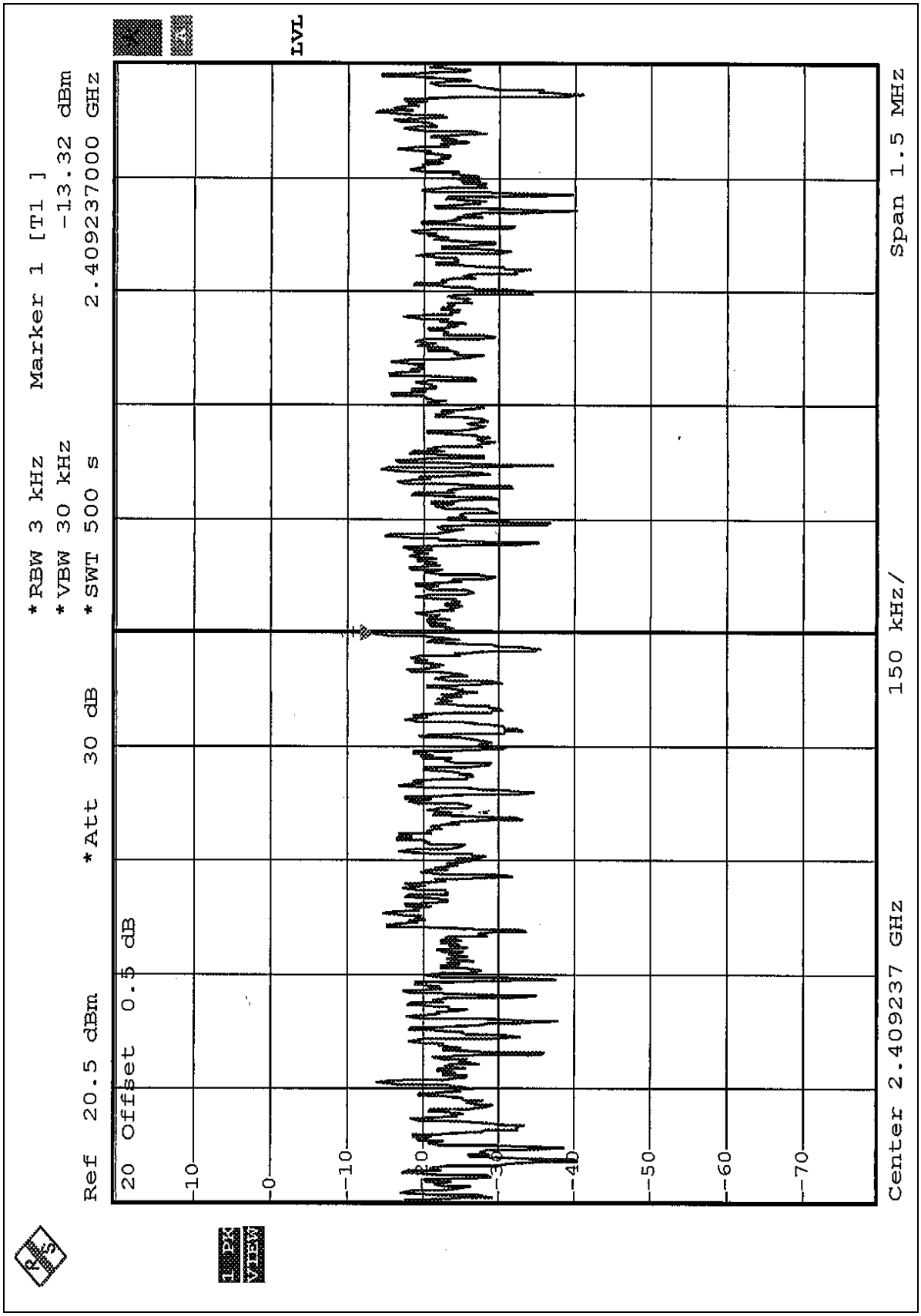
Same as 4.3.6

4.5.7 TEST RESULTS (A)

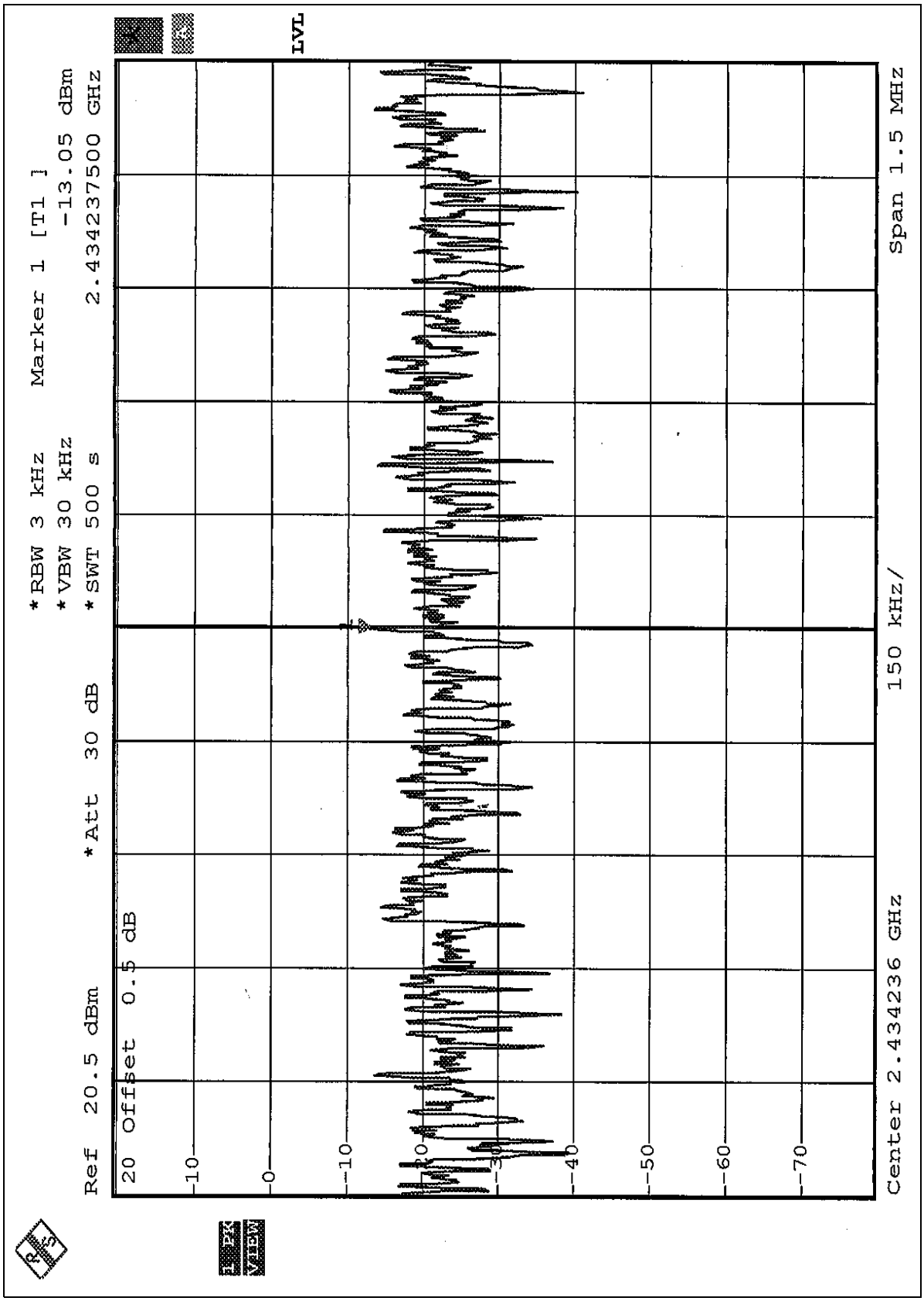
EUT	Wireless-G PCI Adapter	**MODEL**	WMP54Gv4
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**MODE**	CCK
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa	**TESTED BY**:	Allen Chang

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-13.32	8	PASS
6	2437	-13.05	8	PASS
11	2462	-13.58	8	PASS

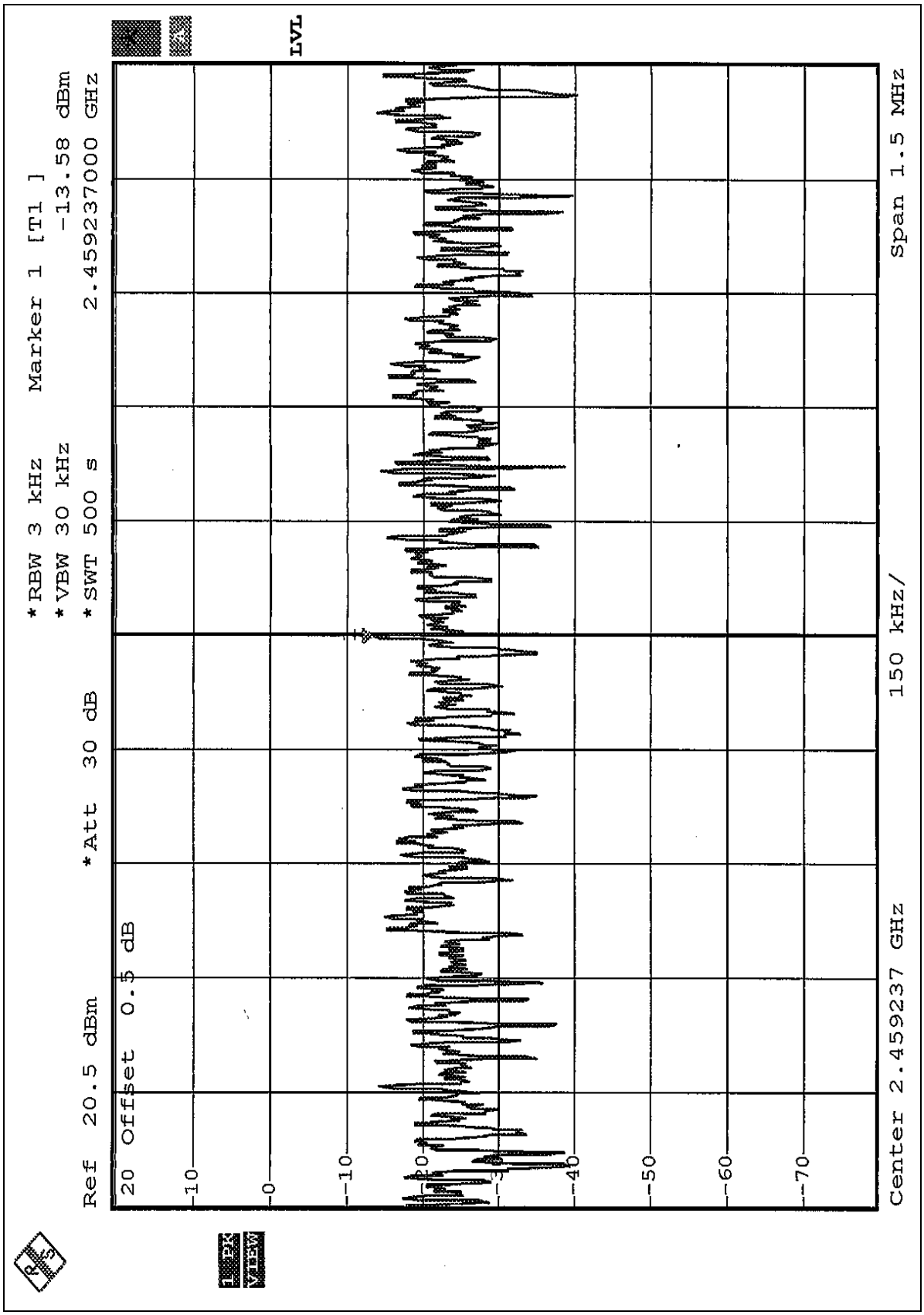
CH1


Marker 1 [T1]
-13.32 dBm
2.409237000 GHz
*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
*Att 30 dB
Ref 20.5 dBm
20 Offset 0.5 dB
10
0
-10
-20
-30
-40
-50
-60
-70
Center 2.409237 GHz
150 kHz/
Span 1.5 MHz
1 PK
VIEW

CH6


Marker 1 [T1]
-13.05 dBm
2.434237500 GHz
*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
*Att 30 dB
Ref 20.5 dBm
20 Offset 0.5 dB
LVL
Center 2.434236 GHz
150 kHz/
Span 1.5 MHz
1 PK
VIEW

CH11

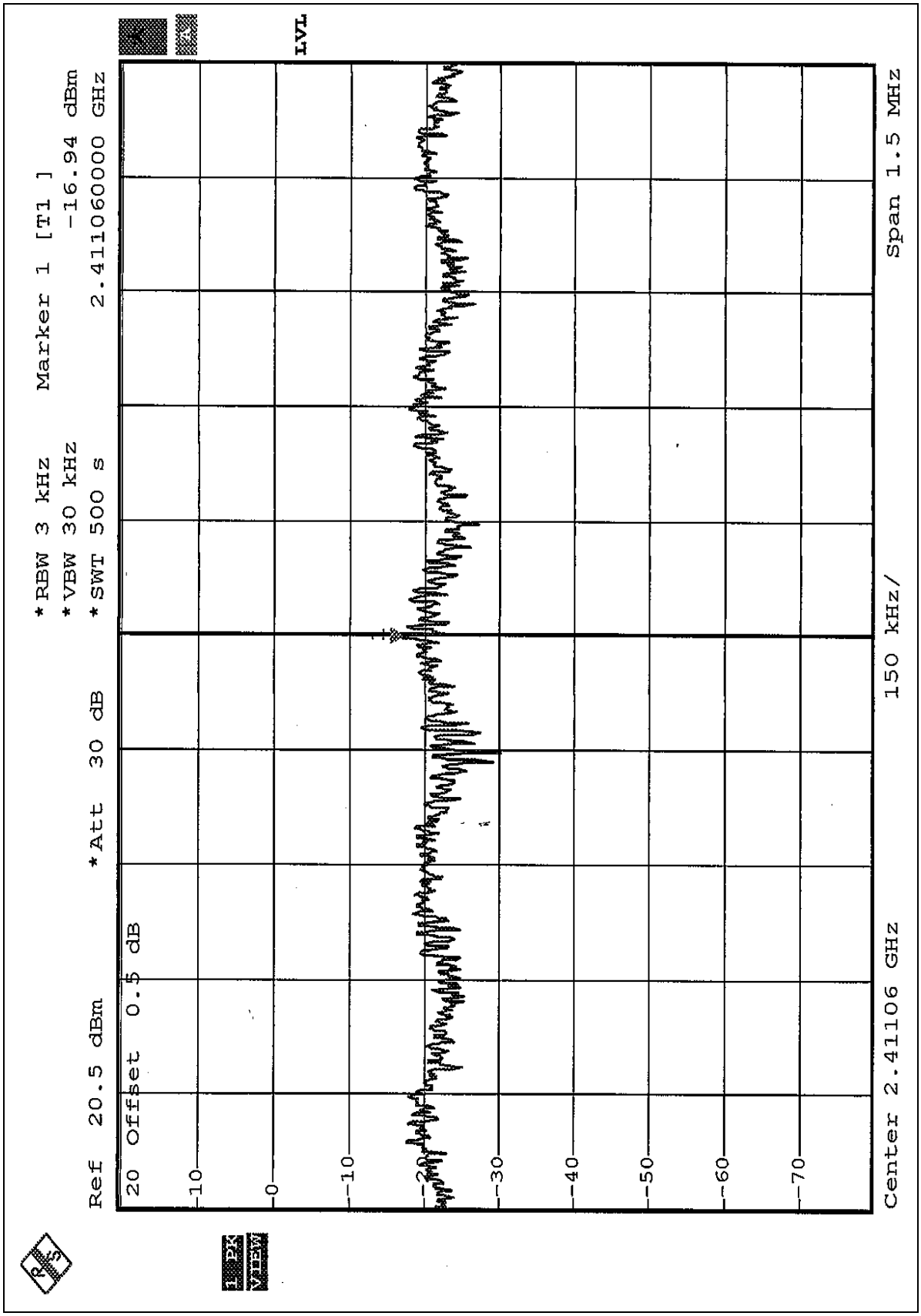

Ref 20.5 dBm
20 Offset 0.5 dB
*Att 30 dB
*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-13.58 dBm
2.459237000 GHz
Center 2.459237 GHz
150 kHz/
Span 1.5 MHz
10
0
-10
-20
-30
-40
-50
-60
-70
1MA
VIEW

4.5.8 TEST RESULT (B)

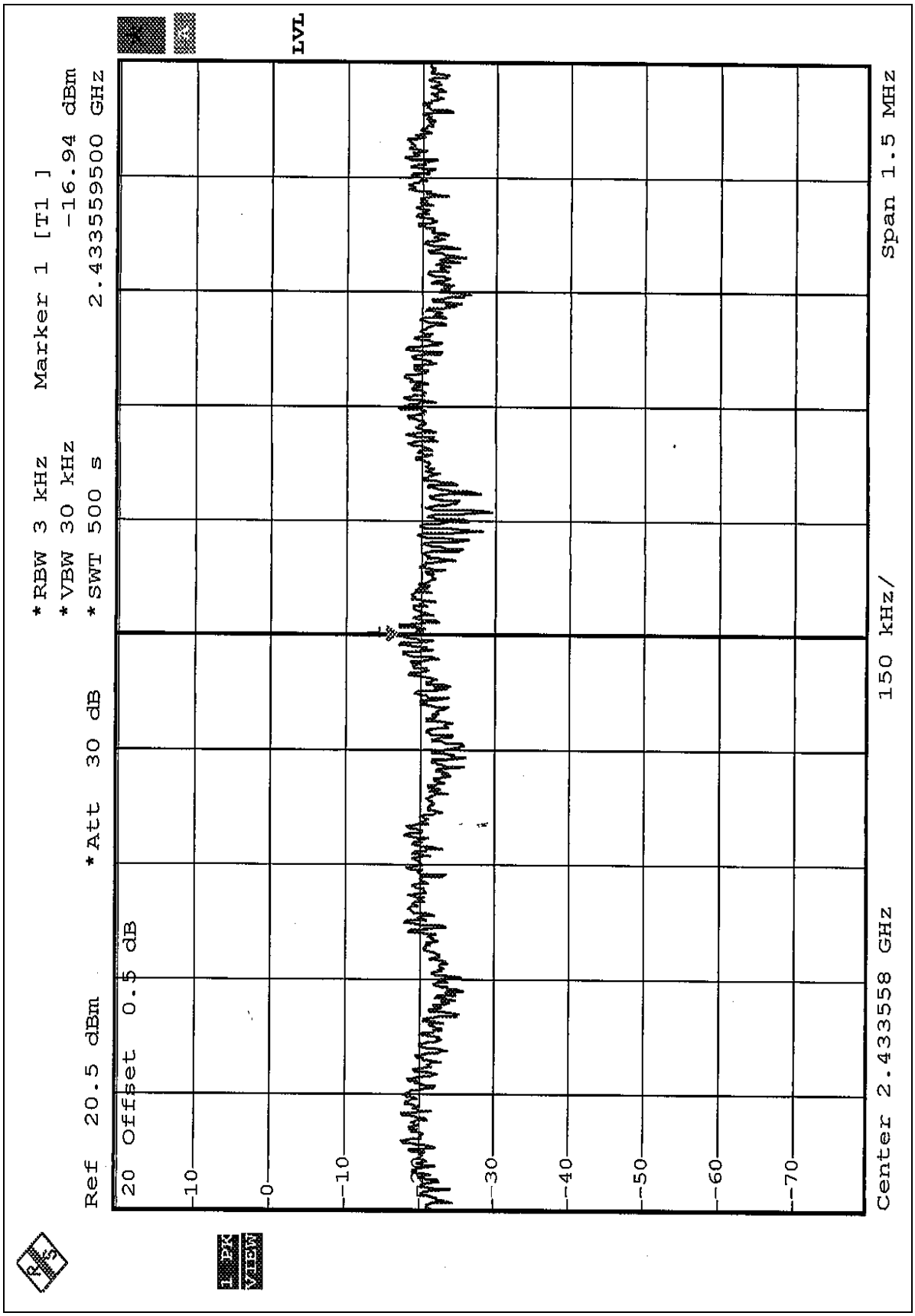
EUT	Wireless-G PCI Adapter	**MODEL**	WMP54Gv4
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**MODE**	OFDM
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa	**TESTED BY**:	Allen Chang

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-16.94	8	PASS
6	2437	-16.94	8	PASS
11	2462	-16.31	8	PASS

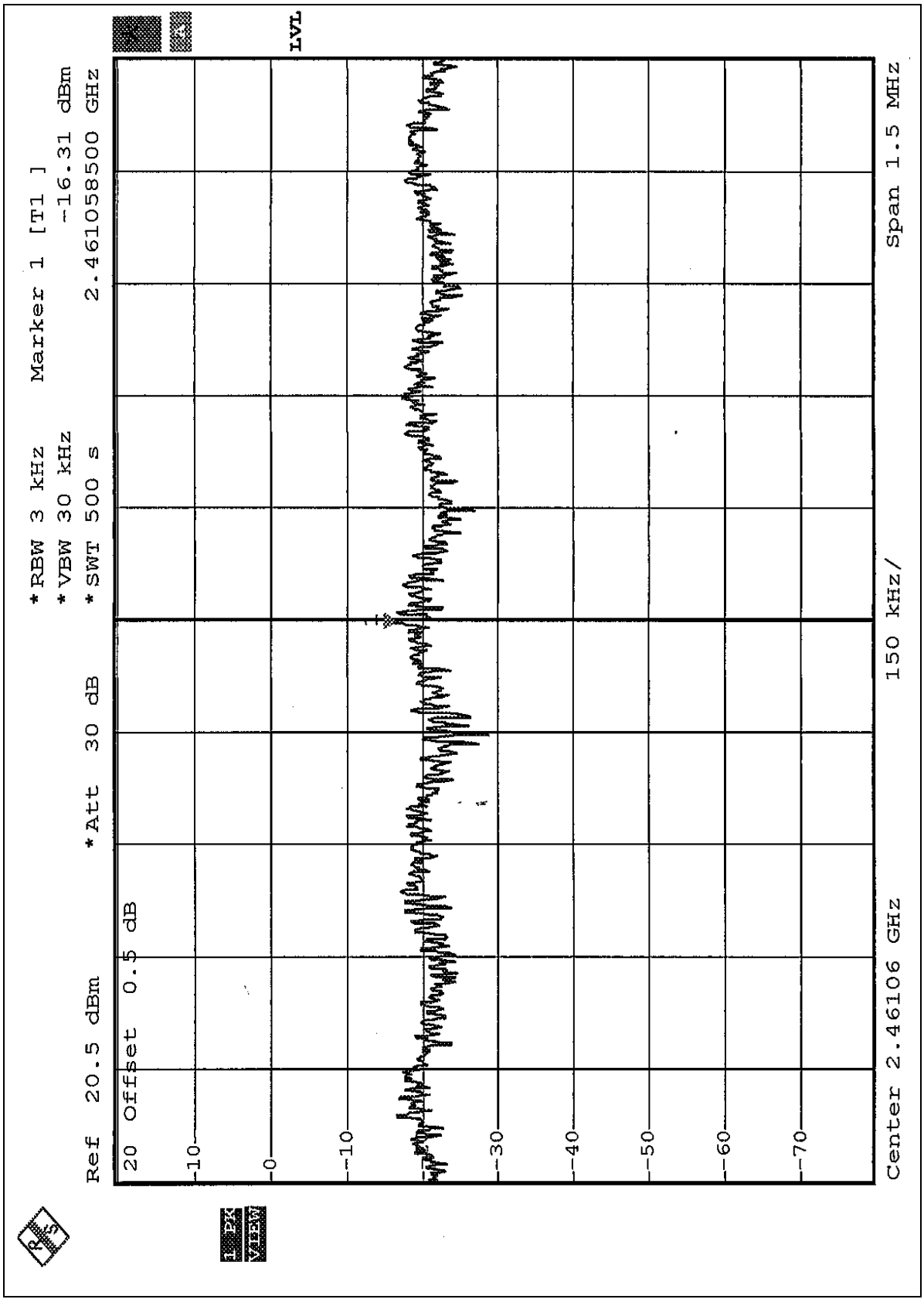
CH1


Ref 20.5 dBm
20 Offset 0.5 dB
*Att 30 dB
*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-16.94 dBm
2.41106000 GHz
1 PK VIEW
LVL
Center 2.41106 GHz
150 kHz/
Span 1.5 MHz
10
0
-10
-20
-30
-40
-50
-60
-70

CH6


Ref 20.5 dBm
20 Offset 0.5 dB
*Att 30 dB
*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-16.94 dBm
2.433559500 GHz
LVL
Center 2.433558 GHz
150 kHz/
Span 1.5 MHz
1 PK
VIEW

CH11


Ref 20.5 dBm
20 Offset 0.5 dB
*Att 30 dB
*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-16.31 dBm
2.46105850 GHz
LVL
Center 2.46106 GHz
150 kHz/
Span 1.5 MHz
1 PK
VIEW

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 4.3.6

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).

MODE A
NOTE 1:
The band edge emission plot of CCK technique on the following 1-2 pages shows 59.83lta between carrier maximum power and local maximum emission in restrict band (2.3882GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 100.77dBuV/m, so the maximum field strength in restrict band is 100.77-59.83=40.94dBuV/m which is under 54dBuV/m limit.

NOTE 2:
The band edge emission plot of CCK technique on the following 3-4 pages shows 58.97dB 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 4.2.7 is 98.16dBuV/m, so the maximum field strength in restrict band is 98.16-58.971=39.19dBuV/m which is under 54dBuV/m limit.

MODE B
NOTE 3:
The band edge emission plot of CCK technique on the following 1-2 pages shows 59.83dB delta between carrier maximum power and local maximum emission in restrict band (2.3882GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.8 is 102.14dBuV/m, so the maximum field strength in restrict band is 102.14-59.83=42.31dBuV/m which is under 54dBuV/m limit.

NOTE 4:
The band edge emission plot of CCK technique on the following 3-4 pages shows 58.97dB 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 4.2.8 is 102.28dBuV/m, so the maximum field strength in restrict band is 102.28-58.97=43.31dBuV/m which is under 54dBuV/m limit.

4.6.7 TEST RESULTS (B)

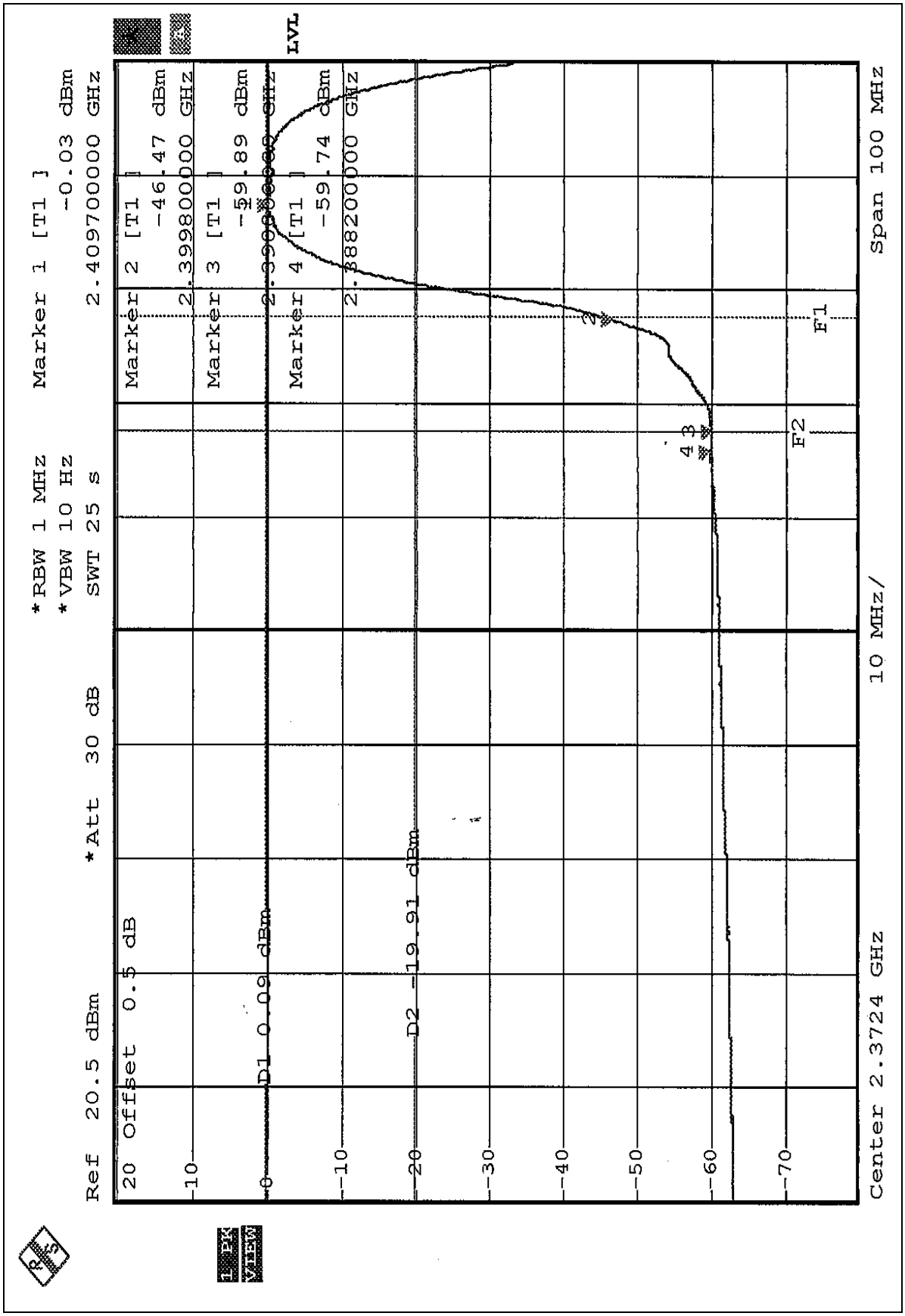
The spectrum plots are attached on the following 4 pages. D2 line indicates the highest level, D1 line indicates the 20dB offset below D2. It shows compliance with the requirement in part 15.247(C).

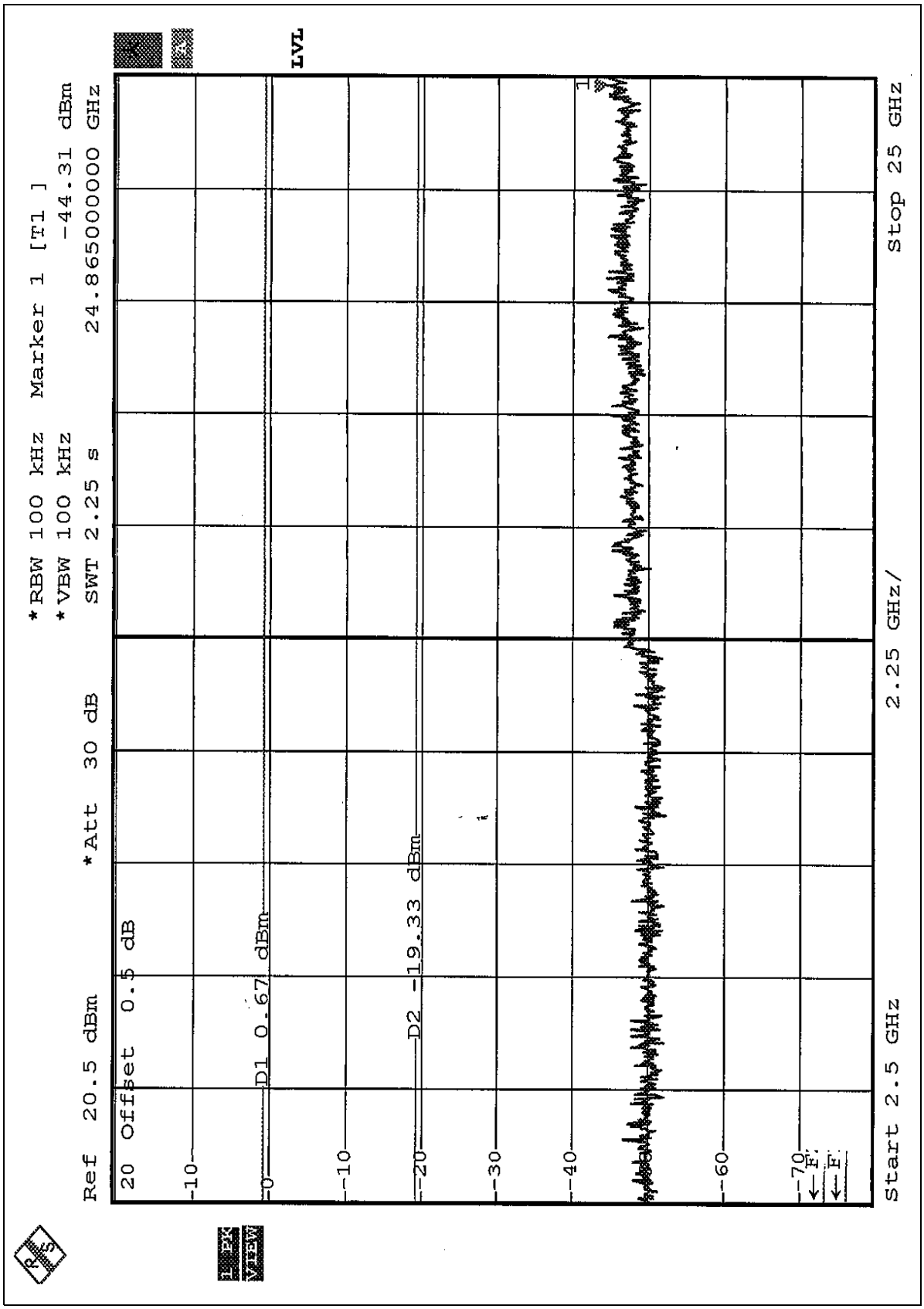
MODE A
NOTE 1:
The band edge emission plot of OFDM technique on the following 5-6 pages shows 53.68lta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 94.22dBuV/m, so the maximum field strength in restrict band is 94.22-53.68=40.54dBuV/m which is under 54dBuV/m limit.

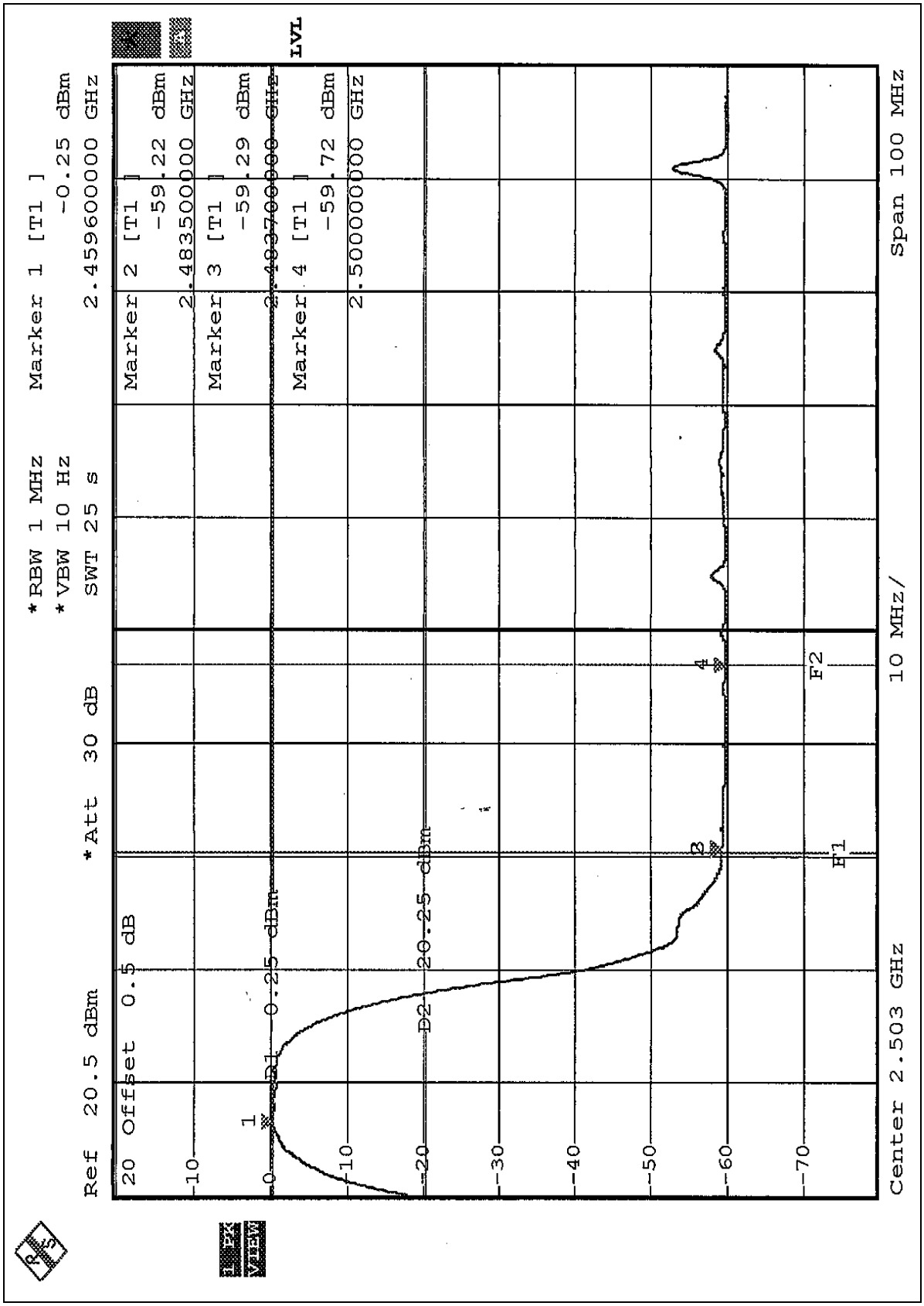
NOTE 2:
The band edge emission plot of OFDM technique on the following 7-8 pages shows 52.50dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 95.90dBuV/m, so the maximum field strength in restrict band is 95.90-52.50=43.40dBuV/m which is under 54dBuV/m limit.

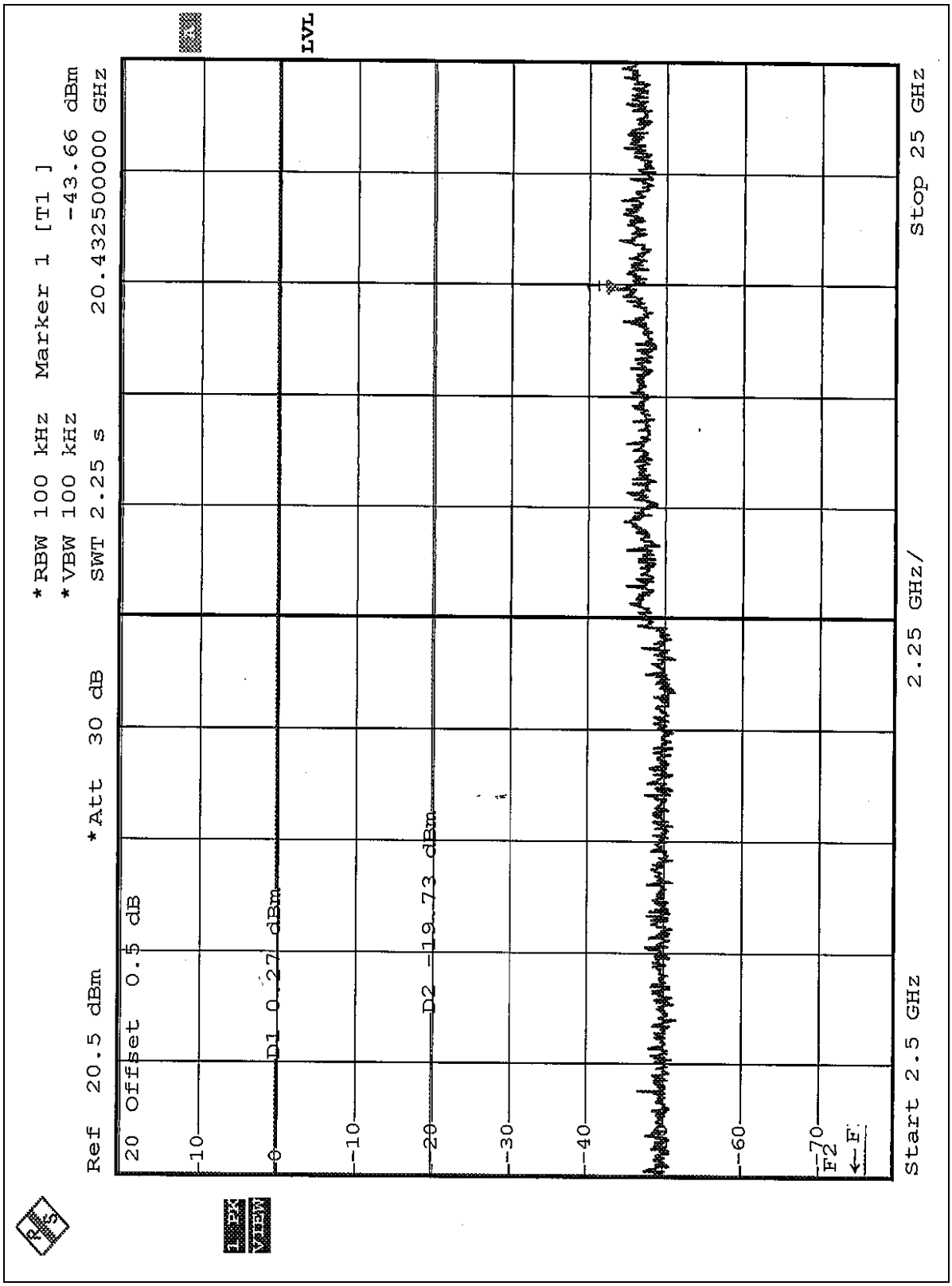
MODE B
NOTE 3:
The band edge emission plot of OFDM technique on the following 5-6 pages shows 53.68dB delta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.8 is 97.87dBuV/m, so the maximum field strength in restrict band is 97.87-53.68=44.19dBuV/m which is under 54dBuV/m limit.

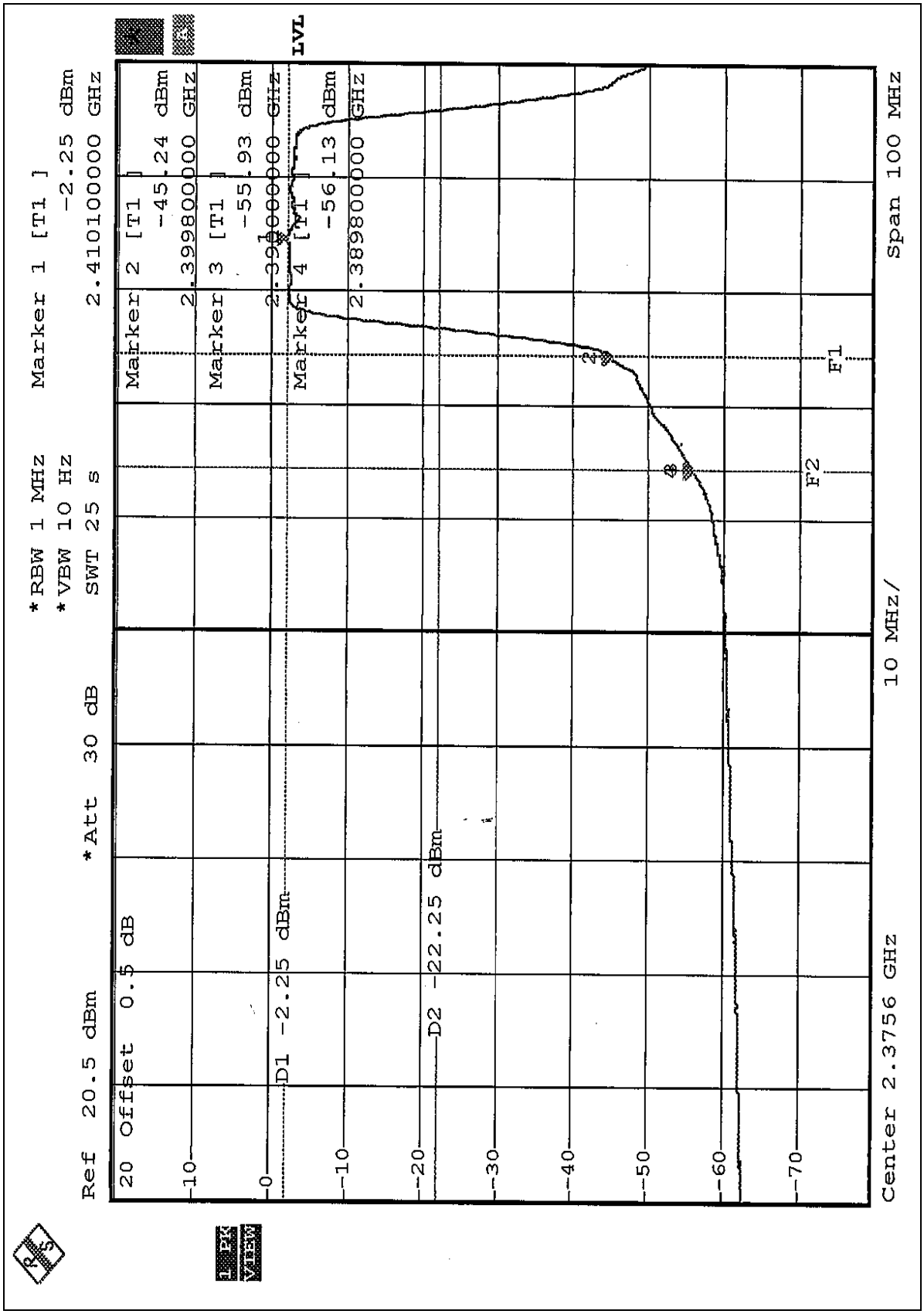
NOTE 4:
The band edge emission plot of OFDM technique on the following 7-8 pages shows 52.50dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.8 is 98.15dBuV/m, so the maximum field strength in restrict band is 98.15-52.50=45.65dBuV/m which is under 54dBuV/m limit.

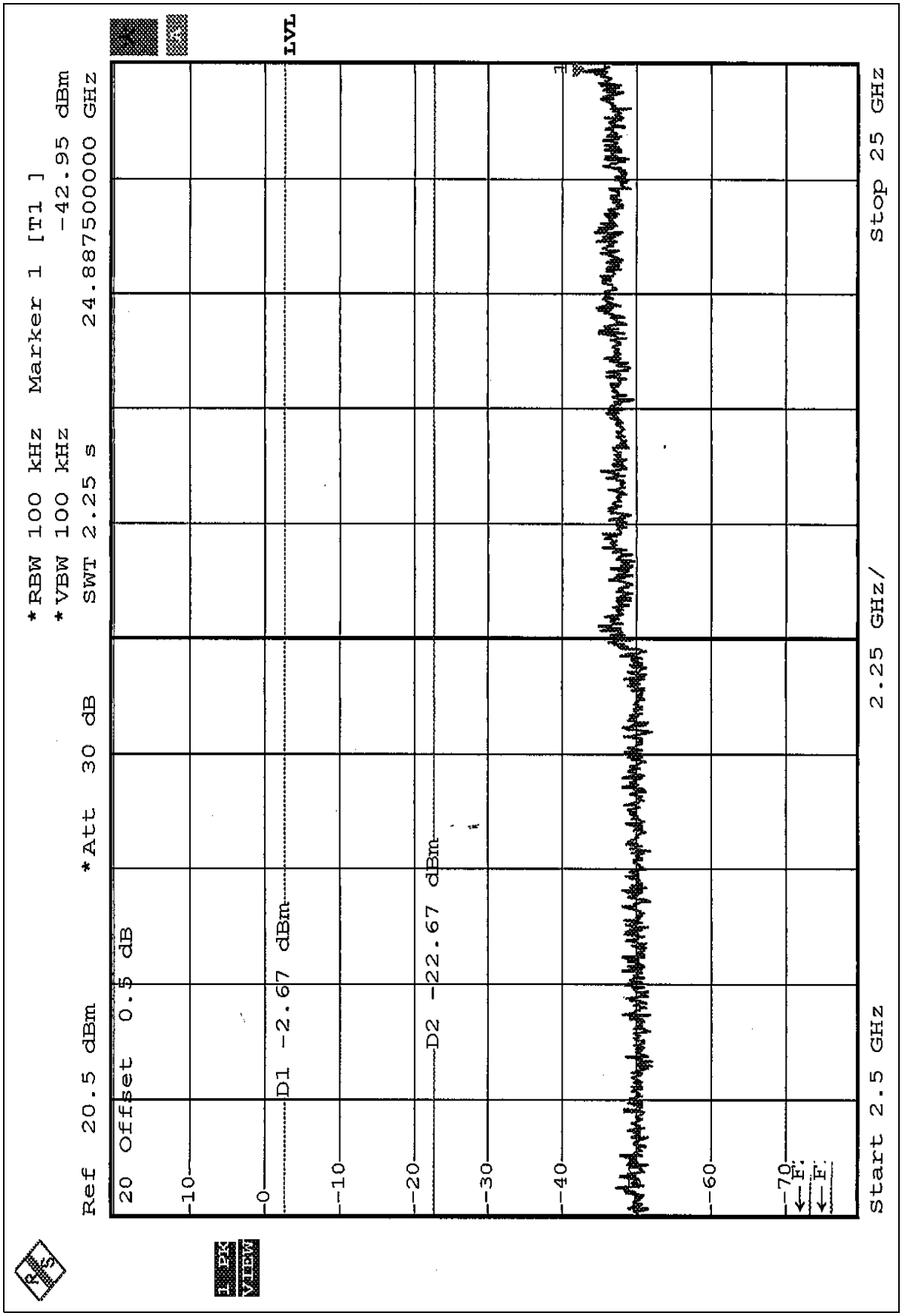

Marker 1 [T1]
-0.03 dBm
2.409700000 GHz
*RBW 1 MHz
*VBW 10 Hz
SWT 25 s
*Att 30 dB
Ref 20.5 dBm
Offset 0.5 dB
Marker 2 [T1]
-46.47 dBm
2.399800000 GHz
Marker 3 [T1]
-59.89 dBm
2.390000000 GHz
Marker 4 [T1]
-59.74 dBm
2.388200000 GHz
D1 0.09 dBm
D2 -19.91 dBm
F1
F2
LVL
Center 2.3724 GHz
10 MHz/
Span 100 MHz
1 PK
VIEW

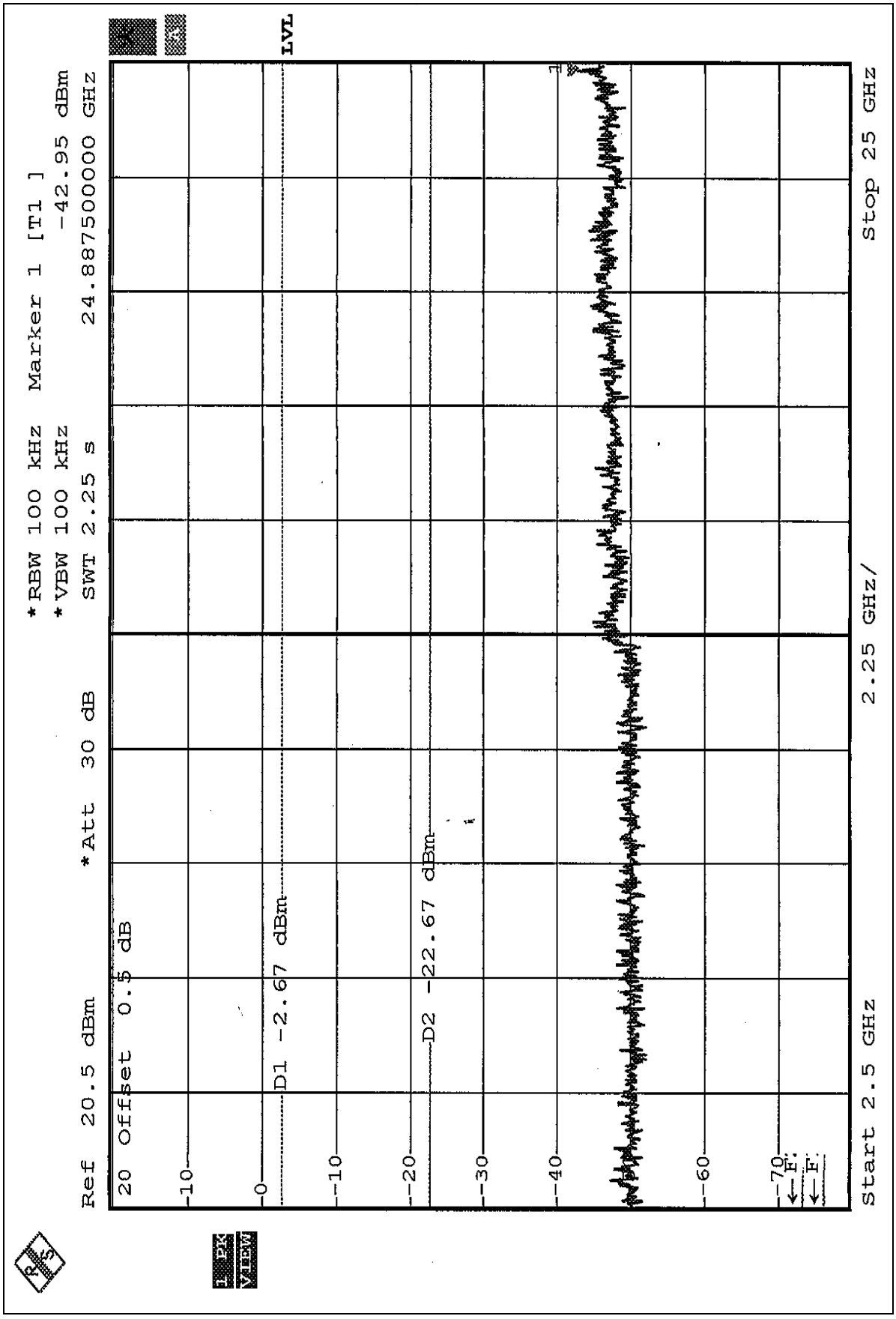

*RBW 100 kHz
*VBW 100 kHz
SWT 2.25 s
Marker 1 [T1]
-44.31 dBm
24.865000000 GHz
Ref 20.5 dBm
20 Offset 0.5 dB
*Att 30 dB
D1 0.67 dBm
D2 -19.33 dBm
LVL
Start 2.5 GHz
2.25 GHz/
Stop 25 GHz
1 EX
VIEW

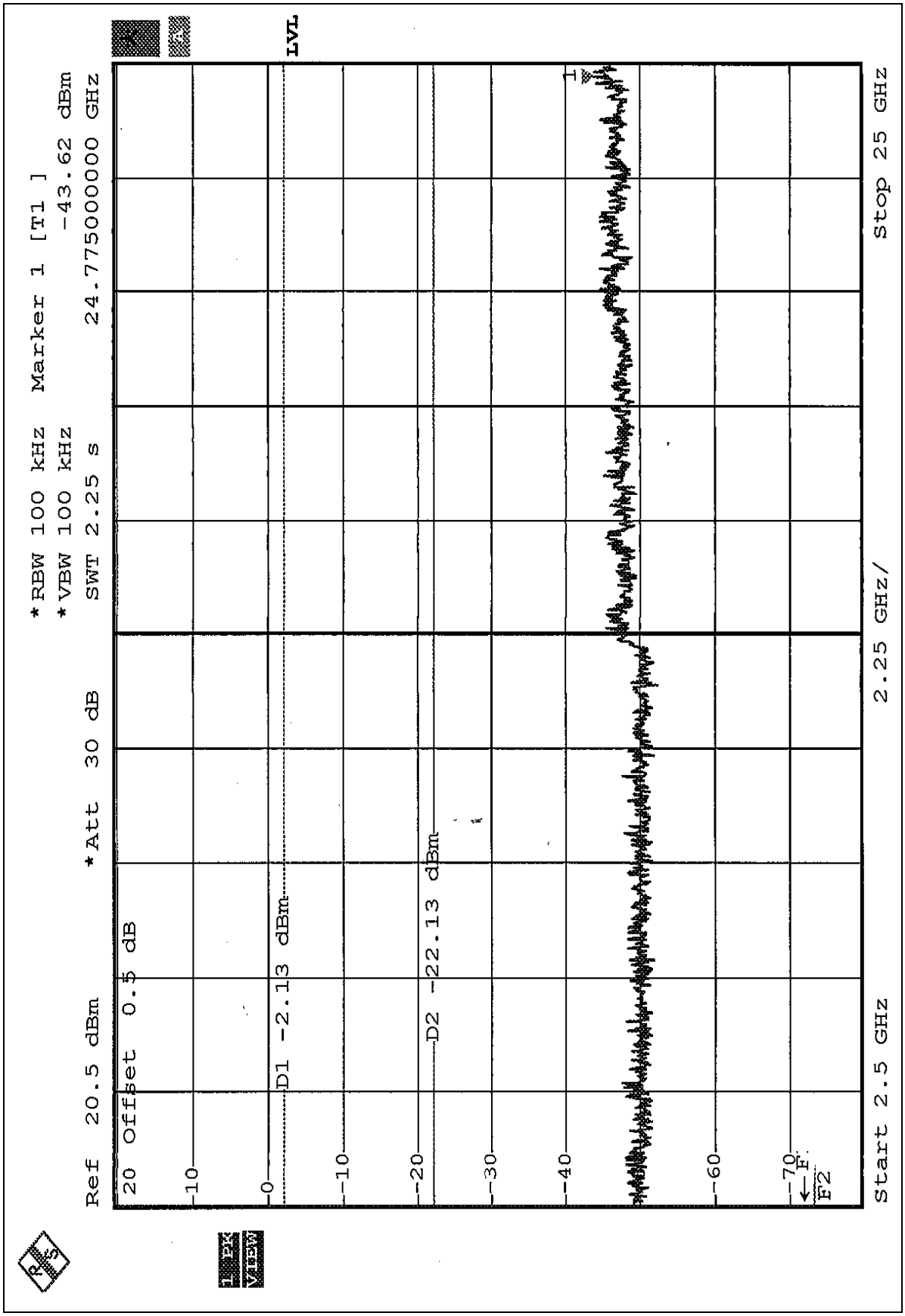

Ref 20.5 dBm
20 Offset 0.5 dB
*Att 30 dB
*RBW 1 MHz
*VBW 10 Hz
SWT 25 s
Marker 1 [T1]
-0.25 dBm
2.459600000 GHz
Marker 2 [T1]
-59.22 dBm
2.483500000 GHz
Marker 3 [T1]
-59.29 dBm
2.483700000 GHz
Marker 4 [T1]
-59.72 dBm
2.500000000 GHz
D1 -0.25 dBm
D2 -20.25 dBm
Center 2.503 GHz
10 MHz/
Span 100 MHz
F1
F2
CLR WRITE


Ref 20.5 dBm
20 Offset 0.5 dB
*Att 30 dB
*RBW 100 kHz
*VBW 100 kHz
SWT 2.25 s
Marker 1 [T1]
-43.66 dBm
20.432500000 GHz
D1 0.27 dBm
D2 -19.73 dBm
F2
F1
Start 2.5 GHz
2.25 GHz/
Stop 25 GHz


*RBW 1 MHz
*VBW 10 Hz
SWT 25 s
Marker 1 [T1]
-2.25 dBm
2.410100000 GHz
Marker 2 [T1]
-45.24 dBm
2.399800000 GHz
Marker 3 [T1]
-55.93 dBm
2.399000000 GHz
Marker 4 [T1]
-56.13 dBm
2.389800000 GHz
LVL
Ref 20.5 dBm
20 Offset 0.5 dB
*Att 30 dB
D1 -2.25 dBm
D2 -22.25 dBm
F1
F2
Center 2.3756 GHz
10 MHz/
Span 100 MHz
1 PK
VBW


Ref 20.5 dBm
20 Offset 0.5 dB
*Att 30 dB
*RBW 100 kHz
*VBW 100 kHz
SWT 2.25 s
Marker 1 [T1]
-42.95 dBm
24.887500000 GHz
LVL
D1 -2.67 dBm
D2 -22.67 dBm
Start 2.5 GHz
2.25 GHz/
Stop 25 GHz
1 PK
MAXH


*RBW 100 kHz
*VBW 100 kHz
SWT 2.25 s
Marker 1 [T1]
-42.95 dBm
24.887500000 GHz
Ref 20.5 dBm
20 Offset 0.5 dB
*Att 30 dB
LVL
D1 -2.67 dBm
D2 -22.67 dBm
1 PK
VIEW
Start 2.5 GHz
2.25 GHz/
Stop 25 GHz


Ref 20.5 dBm
20 Offset 0.5 dB
*Att 30 dB
*RBW 100 kHz
*VBW 100 kHz
SWT 2.25 s
Marker 1 [T1]
-43.62 dBm
24.775000000 GHz
LVL
D1 -2.13 dBm
D2 -22.13 dBm
Start 2.5 GHz
2.25 GHz/
Stop 25 GHz
1 PK
VBW

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

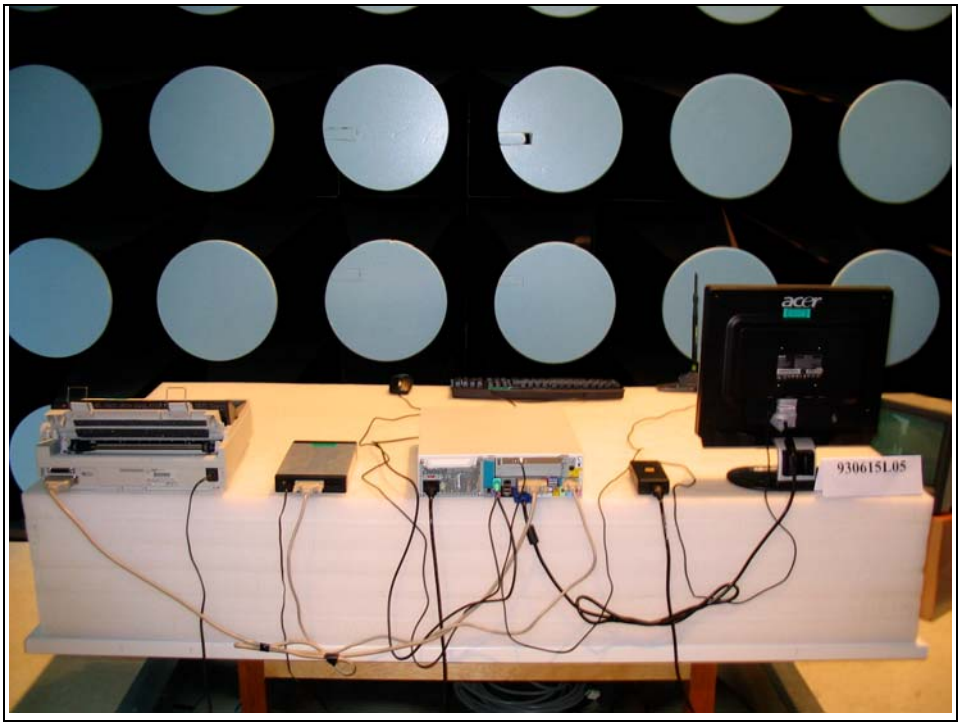
The antenna type used in this product is Dipole antenna with reversed SMA antenna connector. The maximum Gain of this antenna is only 7.0dBi.

5 PHOTOGRAPHS OF THE TEST CONFIGURATION

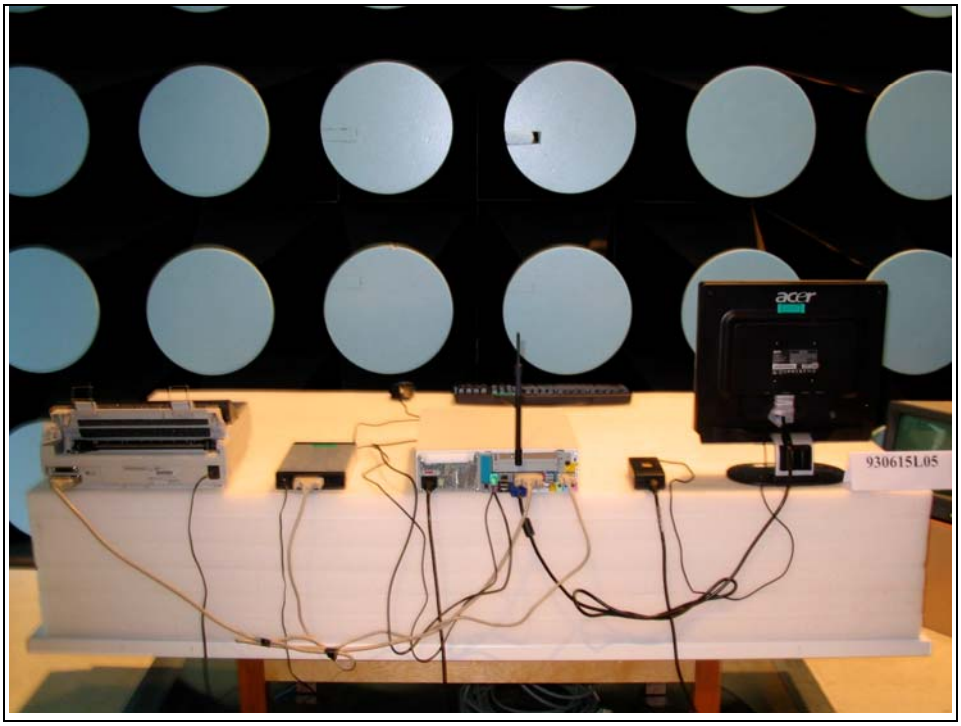
CONDUCTED EMISSION TEST
Mode A

Mode B

RADIATED EMISSION TEST
Mode A



Mode B



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
Japan	VCCI
Norway	NEMKO
Canada	INDUSTRY CANADA , CSA
R.O.C.	CNLA, BSMI, DGT
Netherlands	Telefication
Singapore	PSB , GOST-ASIA(MOU)
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.

Report Format Version 1.0