FCC TEST REPORT

REPORT NO.: RF930513L13
MODEL NO.: GN-WIKG
RECEIVED: May 13, 2004
TESTED: May 26 ~ May 28, 2004

APPLICANT: GIGA-BYTE TECHNOLOGY CO., LTD.

ADDRESS: No. 6, Bau Chiang Road, Hsin-Tien, Taipei Hsien, Taiwan, R. O. C

ISSUED BY: Advance Data Technology Corporation

LAB LOCATION: No. 19, Hwa Ya 2nd Rd., Kueishan, Taoyuan, Taiwan, R.O.C.

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Table of Contents

1 CERTIFICATION

PRODUCT :	Wireless mini-PCI Module
BRAND NAME :	GIGABYTE
MODEL NO. :	GN-WIKG
APPLICANT :	GIGA-BYTE TECHNOLOGY CO., LTD.
TESTED :	May 26 ~ May 28, 2004
TEST ITEM :	R&D 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: Stacy Hsueh , **DATE:** June 03, 2004
Stacy Hsueh

APPROVED BY: , **DATE:** June 03, 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 –15.80dB at 0.224MHz
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 –1.26dB at 9848.00MHz
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 mini-PCI Module
MODEL NO.	GN-WIKG
POWER SUPPLY	5.0Vdc 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	19.50dBm
ANTENNA TYPE	*refer to note 2
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)	Model	Company
1	Dipole	4.5 dBi	RFA-02-5-C7M3	Aristotle Enterprises Inc
2	Dipole	4.189 dBi	E21C-5000L5	Full Rise Electronic Co., Ltd

3. The EUT complies with IEEE 802.11g draft standards and backwards compatible with IEEE 802.11b products.
4. The EUT was powered by the following adapter:

BRAND :	Fairway Electronic Co., Ltd.
MODEL :	WN10A-050
INPUT :	100-240Vac, 50-60Hz, 1A
OUTPUT :	5Vdc, 2A,

5. The above EUT information was declared by 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. There are two test results presented in the following sections: The test result A is for dipole antenna with 4.5dBi and the test result B is for dipole antenna with 4.189 dBi.

3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a Wireless mini-PCI Module. 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

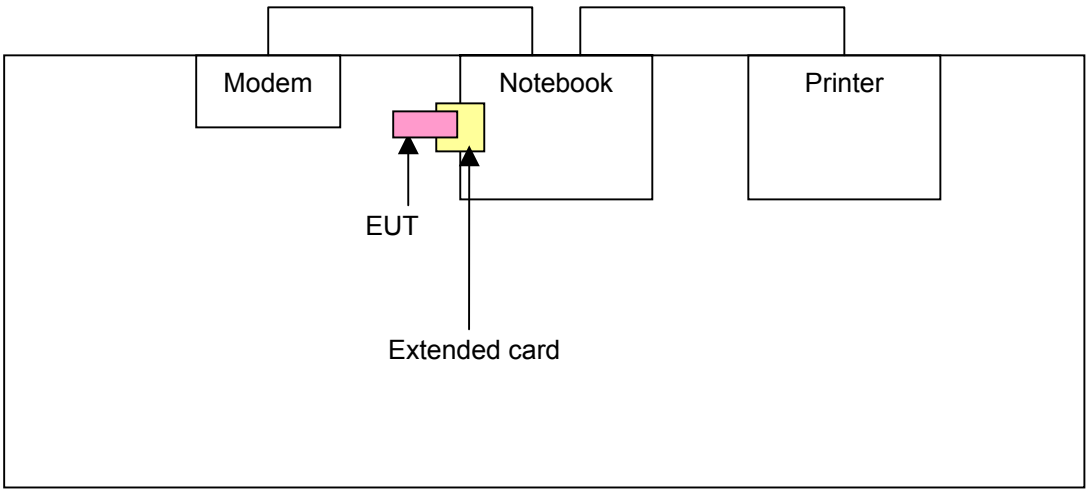
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK COMPUTER	DELL	PP05L	12130898320	E2K24CLNS
2	MODEM	ACEEX	1414V/3	0401008248	IFAXDM1414
3	PRINTER	EPSON	LQ-300+	DCGY047265	FCC DoC Approved

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	NA
2	1.2m shielded cable without core
3	1.2m shielded cable without core

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

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

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
Test Receiver ROHDE & SCHWARZ	ESCS30	100291	Dec. 12, 2004
RF signal cable Woken	5D-FB	Cable-HYC01-01	Mar. 02, 2005
LISN ROHDE & SCHWARZ	ESH3-Z5	847265/023	Oct. 22, 2004
LISN ROHDE & SCHWARZ	ESH3-Z5	100220	Dec. 10, 2004
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 1.
3. The VCCI Site Registration No. is C-2040.Hwa Ya Global Certification Office

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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.

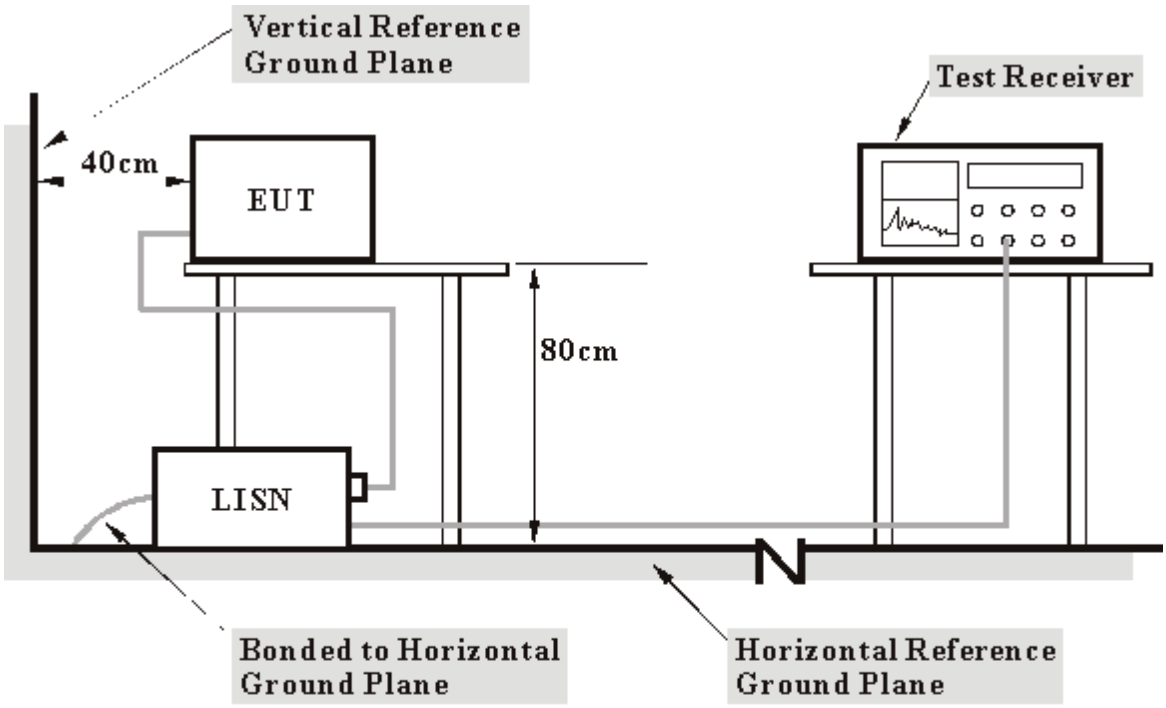
b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

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

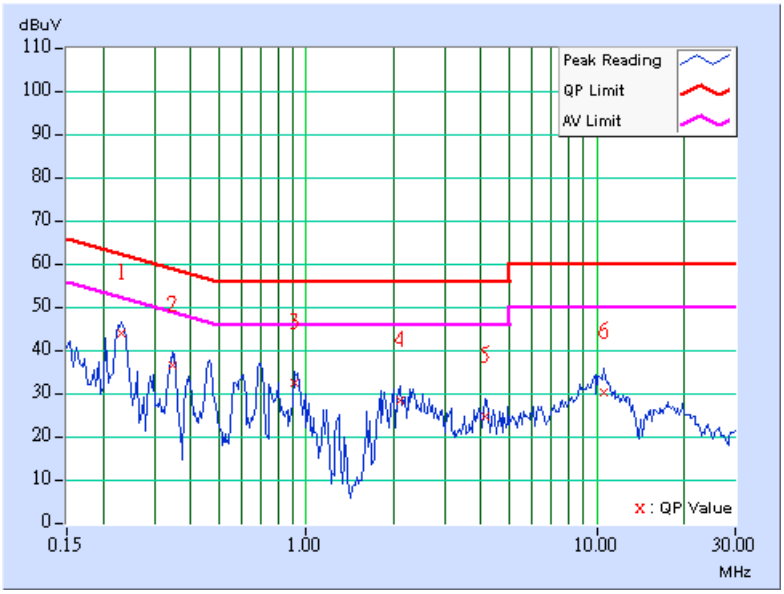
a. Connected the EUT to a notebook system placed on a testing table.
b. The notebook system ran a test program (provided by manufacturer) to enable EUT under transmission/receiving condition continuously at specific channel frequency.
c. The notebook system sent "H" messages to its screen.
d. The notebook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

4.1.7 TEST RESULTS (A)

EUT	Wireless mini-PCI Module	**MODEL**	GN-WIKG
CHANNEL	1	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	**PHASE**	Line (L)
ENVIRONMENTAL CONDITIONS	24 deg. C, 64% RH, 991 hPa	**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	0.232	0.12	43.66	-	43.78	-	62.38	52.38	-18.60	-
2	0.345	0.12	36.27	-	36.39	-	59.07	49.07	-22.68	-
3	0.916	0.15	32.39	-	32.54	-	56.00	46.00	-23.46	-
4	2.098	0.16	28.31	-	28.47	-	56.00	46.00	-27.53	-
5	4.152	0.21	24.32	-	24.53	-	56.00	46.00	-31.47	-
6	10.574	0.36	30.09	-	30.45	-	60.00	50.00	-29.55	-

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 mini-PCI Module	**MODEL**	GN-WIKG
CHANNEL	1	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	**PHASE**	Neutral (N)
ENVIRONMENTAL CONDITIONS	24 deg. C, 64% RH, 991 hPa	**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	0.224	0.11	41.28	-	41.39	-	62.66	52.66	-21.27	-
2	0.349	0.11	35.73	-	35.84	-	58.98	48.98	-23.14	-
3	0.705	0.13	32.82	-	32.95	-	56.00	46.00	-23.05	-
4	2.199	0.16	30.04	-	30.20	-	56.00	46.00	-25.80	-
5	7.402	0.28	24.00	-	24.28	-	60.00	50.00	-35.72	-
6	10.156	0.29	30.15	-	30.44	-	60.00	50.00	-29.56	-

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.
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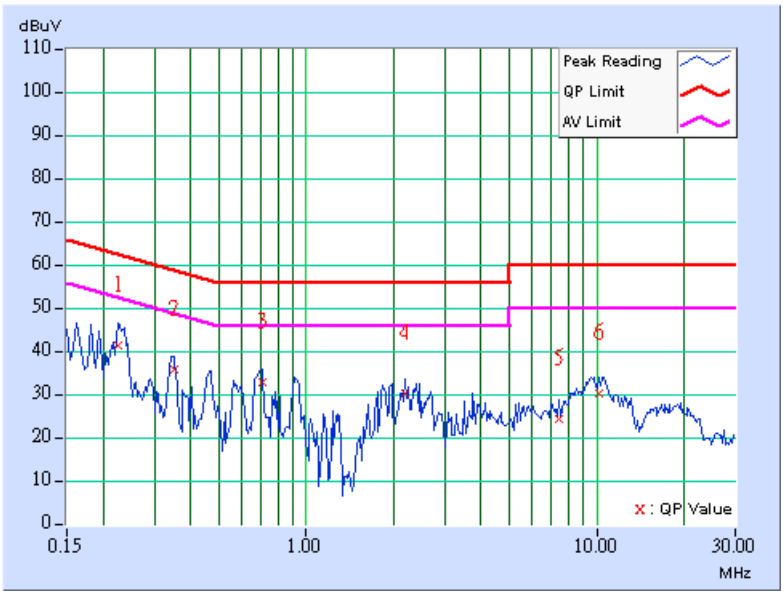
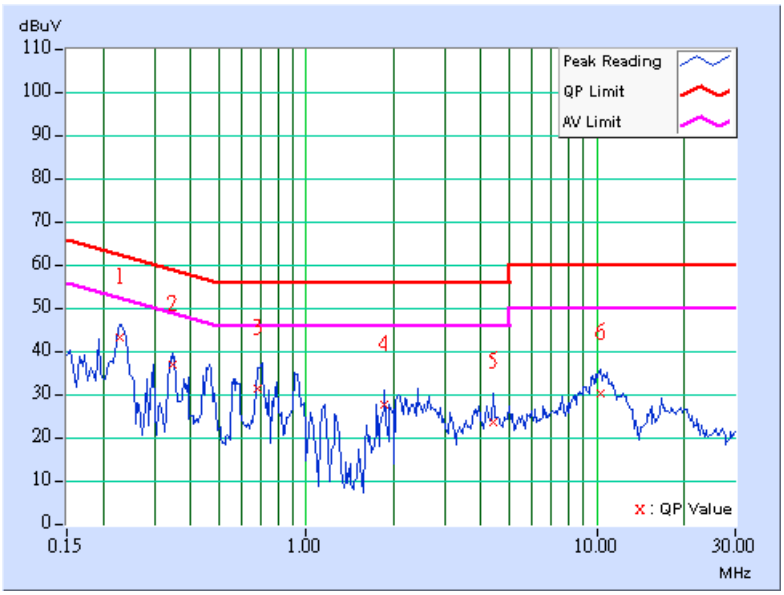
4. Margin value = Emission level - Limit value
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.



EUT	Wireless mini-PCI Module	**MODEL**	GN-WIKG
CHANNEL	6	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	**PHASE**	Line (L)
ENVIRONMENTAL CONDITIONS	24 deg. C, 64% RH, 991 hPa	**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	0.228	0.12	43.11	-	43.23	-	62.52	52.52	-19.29	-
2	0.345	0.12	36.77	-	36.89	-	59.07	49.07	-22.18	-
3	0.677	0.13	31.12	-	31.25	-	56.00	46.00	-24.75	-
4	1.859	0.16	27.56	-	27.72	-	56.00	46.00	-28.28	-
5	4.402	0.22	23.22	-	23.44	-	56.00	46.00	-32.56	-
6	10.266	0.33	30.03	-	30.36	-	60.00	50.00	-29.64	-

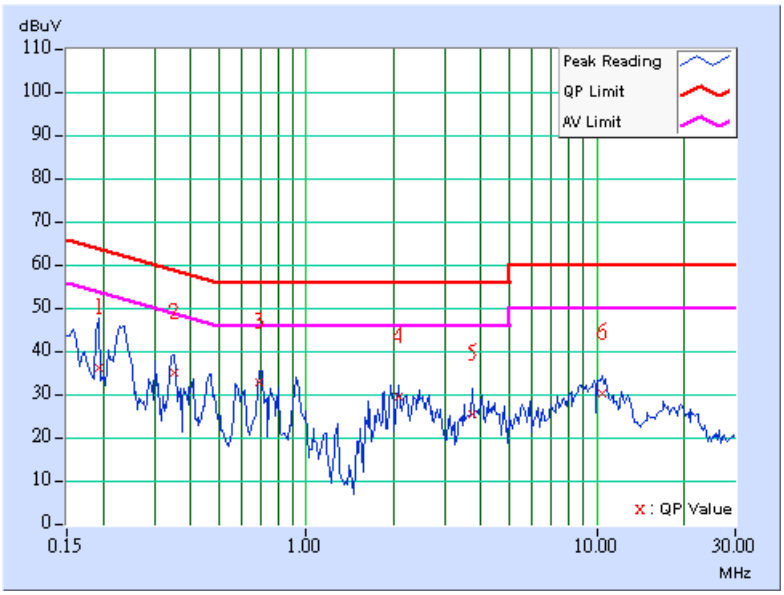
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



EUT	Wireless mini-PCI Module	**MODEL**	GN-WIKG
CHANNEL	6	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	**PHASE**	Neutral (N)
ENVIRONMENTAL CONDITIONS	24 deg. C, 64% RH, 991 hPa	**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	0.11	35.87	-	35.98	-	63.91	53.91	-27.93	-
2	0.349	0.11	34.78	-	34.89	-	58.98	48.98	-24.09	-
3	0.685	0.12	32.64	-	32.76	-	56.00	46.00	-23.24	-
4	2.090	0.16	29.48	-	29.64	-	56.00	46.00	-26.36	-
5	3.738	0.19	25.29	-	25.48	-	56.00	46.00	-30.52	-
6	10.473	0.31	29.88	-	30.19	-	60.00	50.00	-29.81	-

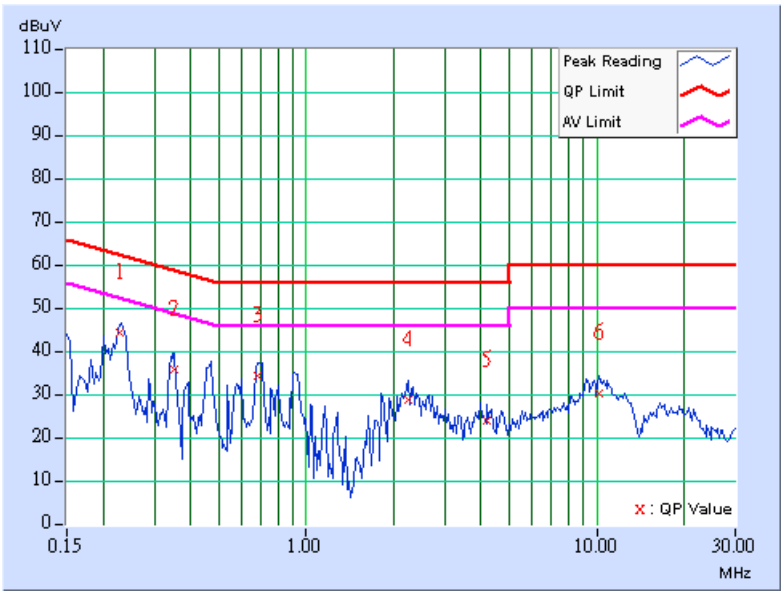
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



EUT	Wireless mini-PCI Module	**MODEL**	GN-WIKG
CHANNEL	11	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	**PHASE**	Line (L)
ENVIRONMENTAL CONDITIONS	24 deg. C, 64% RH, 991 hPa	**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	0.228	0.12	44.00	-	44.12	-	62.52	52.52	-18.40	-
2	0.353	0.13	35.65	-	35.78	-	58.89	48.89	-23.11	-
3	0.681	0.13	34.23	-	34.36	-	56.00	46.00	-21.64	-
4	2.242	0.17	28.39	-	28.56	-	56.00	46.00	-27.44	-
5	4.180	0.21	23.77	-	23.98	-	56.00	46.00	-32.02	-
6	10.234	0.32	30.07	-	30.39	-	60.00	50.00	-29.61	-

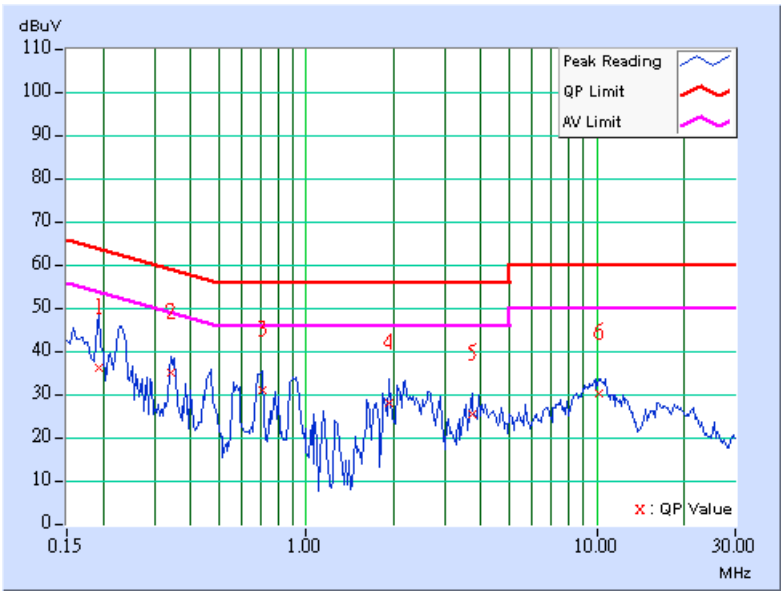
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



EUT	Wireless mini-PCI Module	**MODEL**	GN-WIKG
CHANNEL	11	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	**PHASE**	Netural (N)
ENVIRONMENTAL CONDITIONS	24 deg. C, 64% RH, 991 hPa	**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	0.11	35.89	-	36.00	-	63.91	53.91	-27.91	-
2	0.341	0.11	35.06	-	35.17	-	59.17	49.17	-23.99	-
3	0.709	0.13	31.00	-	31.13	-	56.00	46.00	-24.87	-
4	1.926	0.16	27.69	-	27.85	-	56.00	46.00	-28.15	-
5	3.719	0.19	25.38	-	25.57	-	56.00	46.00	-30.43	-
6	10.188	0.29	30.21	-	30.50	-	60.00	50.00	-29.50	-

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.

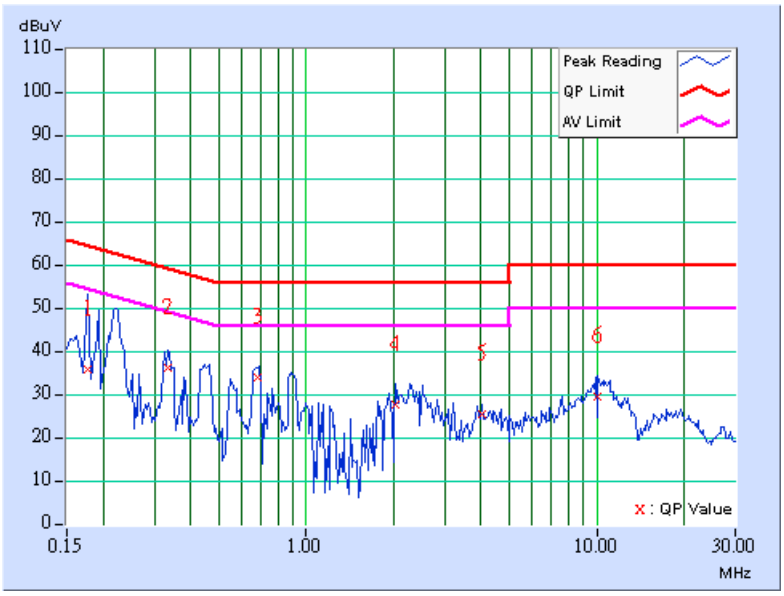


4.1.8 TEST RESULTS (B)

EUT	Wireless mini-PCI Module	**MODEL**	GN-WIKG
CHANNEL	1	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	**PHASE**	Line (L)
ENVIRONMENTAL CONDITIONS	24 deg. C, 64% RH, 991 hPa	**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	0.177	0.11	35.55	-	35.66	-	64.61	54.61	-28.95	-
2	0.334	0.12	36.12	-	36.24	-	59.36	49.36	-23.12	-
3	0.677	0.13	33.61	-	33.74	-	56.00	46.00	-22.26	-
4	2.031	0.16	27.57	-	27.73	-	56.00	46.00	-28.27	-
5	4.035	0.21	25.09	-	25.30	-	56.00	46.00	-30.70	-
6	10.039	0.30	29.17	-	29.47	-	60.00	50.00	-30.53	-

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 mini-PCI Module	**MODEL**	GN-WIKG
CHANNEL	1	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	**PHASE**	Neutral (N)
ENVIRONMENTAL CONDITIONS	24 deg. C, 64% RH, 991 hPa	**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	**0.224**	**0.11**	**46.75**	**-**	**46.86**	**-**	**62.66**	**52.66**	**-15.80**	**-**
2	0.338	0.11	35.91	-	36.02	-	59.26	49.26	-23.24	-
3	0.677	0.12	31.99	-	32.11	-	56.00	46.00	-23.89	-
4	1.887	0.16	28.60	-	28.76	-	56.00	46.00	-27.24	-
5	5.781	0.24	22.19	-	22.43	-	60.00	50.00	-37.57	-
6	10.055	0.28	29.15	-	29.43	-	60.00	50.00	-30.57	-

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.
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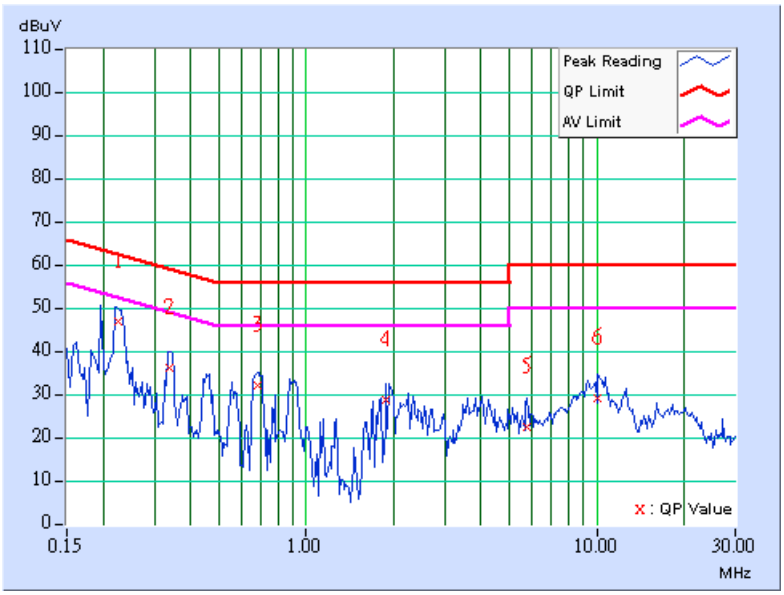
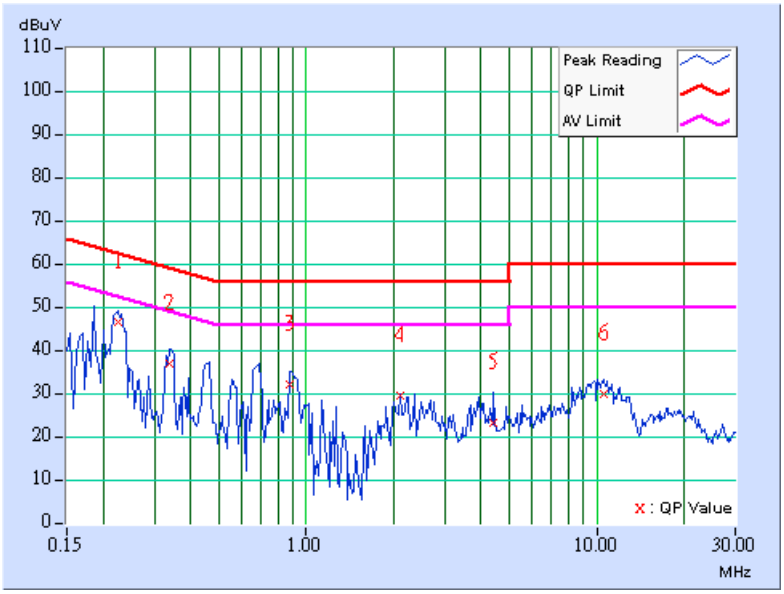
6. Emission Level = Correction Factor + Reading Value.



EUT	Wireless mini-PCI Module	MODEL	GN-WIKG
CHANNEL	6	6dB BANDWIDTH	9 kHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	PHASE	Line (L)
ENVIRONMENTAL CONDITIONS	24 deg. C, 64% RH, 991 hPa	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	0.224	0.12	46.49	-	46.61	-	62.66	52.66	-16.05	-
2	0.338	0.12	36.84	-	36.96	-	59.26	49.26	-22.30	-
3	0.880	0.14	31.92	-	32.06	-	56.00	46.00	-23.94	-
4	2.109	0.16	29.27	-	29.43	-	56.00	46.00	-26.57	-
5	4.406	0.22	22.83	-	23.05	-	56.00	46.00	-32.95	-
6	10.551	0.35	29.53	-	29.88	-	60.00	50.00	-30.12	-

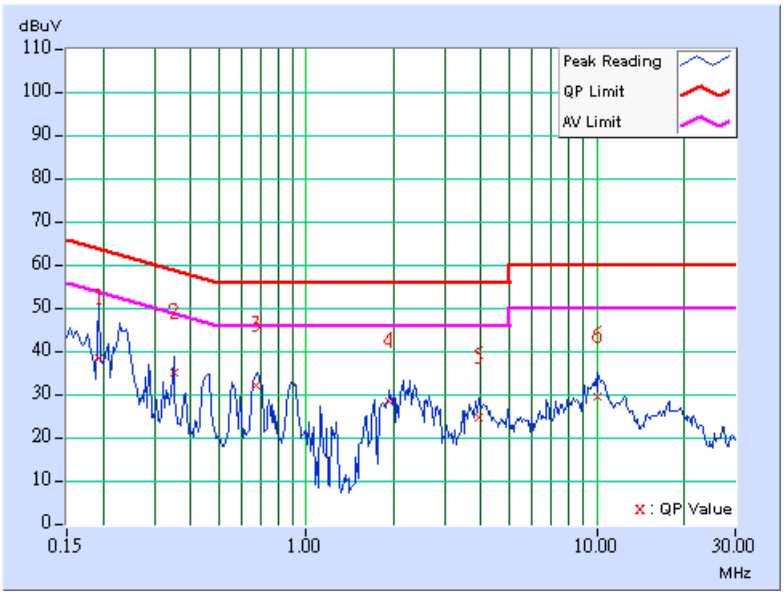
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



EUT	Wireless mini-PCI Module	**MODEL**	GN-WIKG
CHANNEL	6	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	**PHASE**	Neutral (N)
ENVIRONMENTAL CONDITIONS	24 deg. C, 64% RH, 991 hPa	**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	0.11	38.19	-	38.30	-	63.91	53.91	-25.61	-
2	0.349	0.11	34.96	-	35.07	-	58.98	48.98	-23.91	-
3	0.673	0.12	32.02	-	32.14	-	56.00	46.00	-23.86	-
4	1.938	0.16	28.34	-	28.50	-	56.00	46.00	-27.50	-
5	3.922	0.20	24.44	-	24.64	-	56.00	46.00	-31.36	-
6	10.121	0.29	29.47	-	29.76	-	60.00	50.00	-30.24	-

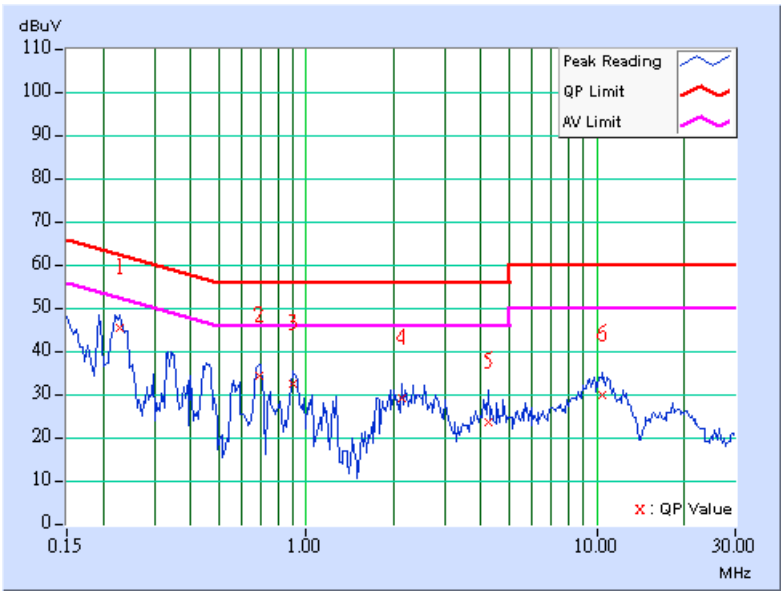
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



EUT	Wireless mini-PCI Module	**MODEL**	GN-WIKG
CHANNEL	11	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	**PHASE**	Line (L)
ENVIRONMENTAL CONDITIONS	24 deg. C, 64% RH, 991 hPa	**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	0.228	0.12	45.20	-	45.32	-	62.52	52.52	-17.20	-
2	0.685	0.13	34.01	-	34.14	-	56.00	46.00	-21.86	-
3	0.896	0.14	32.36	-	32.50	-	56.00	46.00	-23.50	-
4	2.137	0.16	28.80	-	28.96	-	56.00	46.00	-27.04	-
5	4.266	0.21	23.54	-	23.75	-	56.00	46.00	-32.25	-
6	10.461	0.34	29.78	-	30.12	-	60.00	50.00	-29.88	-

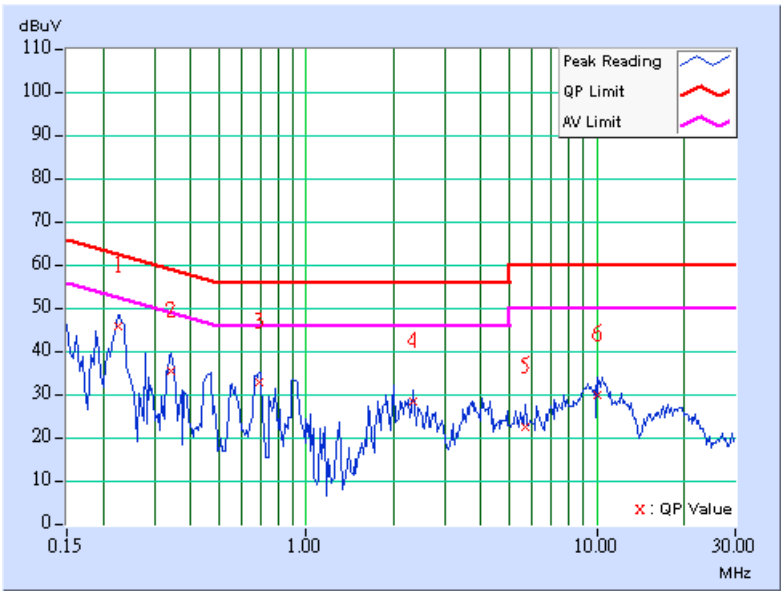
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



EUT	Wireless mini-PCI Module	**MODEL**	GN-WIKG
CHANNEL	11	**6dB BANDWIDTH**	9 kHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	**PHASE**	Netural (N)
ENVIRONMENTAL CONDITIONS	24 deg. C, 64% RH, 991 hPa	**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	0.224	0.11	45.54	-	45.65	-	62.66	52.66	-17.01	-
2	0.341	0.11	35.38	-	35.49	-	59.17	49.17	-23.67	-
3	0.693	0.12	32.53	-	32.65	-	56.00	46.00	-23.35	-
4	2.348	0.17	28.17	-	28.34	-	56.00	46.00	-27.66	-
5	5.707	0.24	22.47	-	22.71	-	60.00	50.00	-37.29	-
6	10.059	0.28	29.56	-	29.84	-	60.00	50.00	-30.16	-

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 meter 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.

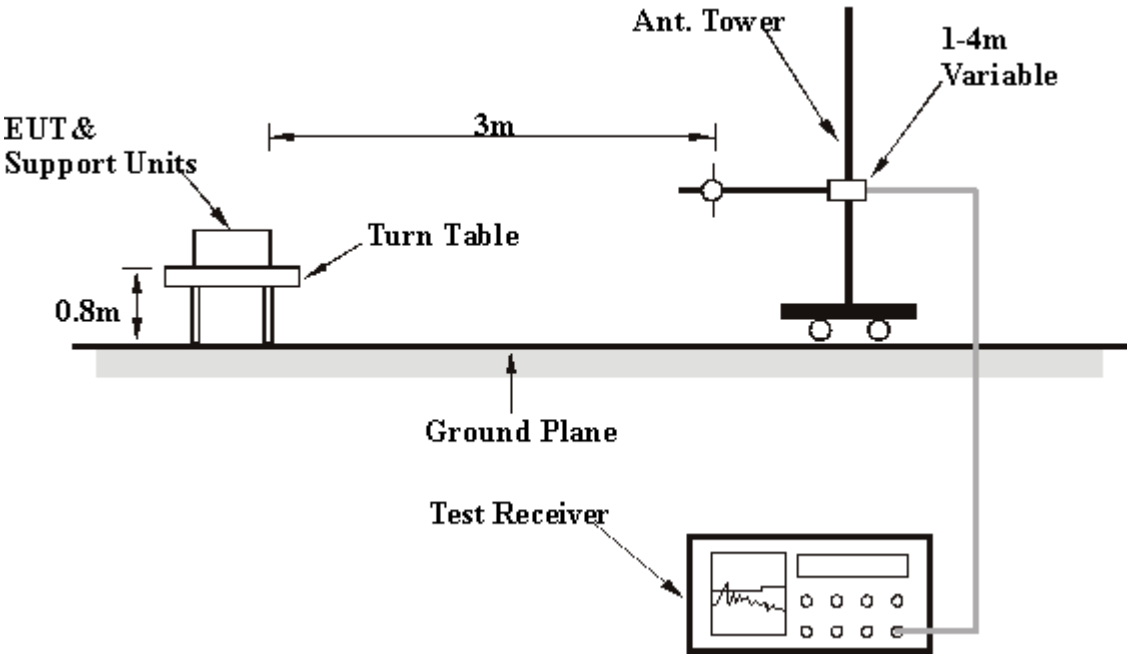
NOTE:

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 (A)

EUT	Wireless mini-PCI Module	**MODEL**	GN-WIKG
CHANNEL	11	**FREQUENCY RANGE**	Below 1000 MHz
INPUT POWER (SYSTEM)	120 Vac, 60Hz	**DETECTOR FUNCTION**	Quasi-Peak
ENVIRONMENTAL CONDITIONS	24 deg. C, 64% RH, 991 hPa	**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	99.98	34.88 QP	43.50	-8.62	2.00 H	187	23.97	10.91
2	166.22	35.81 QP	43.50	-7.69	1.77 H	192	21.50	14.31
3	199.44	39.72 QP	43.50	-3.78	1.14 H	171	28.40	11.32
4	232.16	42.86 QP	46.00	-3.14	1.25 H	208	30.23	12.63
5	267.15	39.12 QP	46.00	-6.88	1.00 H	199	25.57	13.55
6	333.25	38.43 QP	46.00	-7.57	1.00 H	10	23.28	15.15
7	467.37	43.69 QP	46.00	-2.31	2.00 H	157	25.49	18.20
8	531.52	39.50 QP	46.00	-6.50	1.50 H	193	20.37	19.13

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	33.38	36.96 QP	40.00	-3.04	1.00 V	12	22.70	14.26
2	66.72	37.72 QP	40.00	-2.28	1.99 V	54	24.87	12.85
3	99.98	37.72 QP	43.50	-5.78	1.50 V	82	26.82	10.91
4	133.03	31.95 QP	43.50	-11.55	3.00 V	100	18.06	13.89
5	166.07	34.82 QP	43.50	-8.68	2.50 V	136	20.50	14.32
6	465.43	39.19 QP	46.00	-6.81	1.75 V	214	21.01	18.18
7	533.47	37.38 QP	46.00	-8.62	1.25 V	211	18.21	19.17
8	735.63	34.75 QP	46.00	-11.25	2.00 V	232	11.86	22.89

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 mini-PCI Module	**MODEL**	GN-WIKG
CHANNEL	1	**MODE**	CCK
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	**FREQUENCY RANGE**	1~25 GHz
ENVIRONMENTAL CONDITIONS	25 deg. C, 61% RH, 991 hPa	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
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	2038.00	52.94 PK	74.00	-21.06	1.36 H	188	22.60	30.34
1	2038.00	50.86 AV	54.00	-3.14	1.36 H	188	20.52	30.34
2	2387.00	40.92 PK	74.00	-33.08	1.45 H	78	9.17	31.75
2	2387.00	32.55AV	54.00	-21.45	1.45 H	78	0.80	31.75
3	*2412.00	98.19 PK			1.45 H	78	66.33	31.86
3	*2412.00	89.82 AV			1.45 H	78	57.96	31.86
4	4824.00	54.85 PK	74.00	-19.15	1.04 H	338	16.14	38.71
4	4824.00	41.31 AV	54.00	-12.69	1.04 H	338	2.60	38.71
5	9648.00	59.54 PK	74.00	-14.46	1.46 H	348	12.33	47.21
5	9648.00	49.65 AV	54.00	-4.35	1.46 H	348	2.44	47.21

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	2038.00	52.25 PK	74.00	-21.75	1.12 V	208	21.91	30.34
1	2038.00	50.52 AV	54.00	-3.48	1.12 V	208	20.18	30.34
2	2387.00	57.28 PK	74.00	-16.72	1.19 V	166	25.53	31.75
2	2387.00	49.71 AV	54.00	-4.29	1.19 V	166	17.96	31.75
3	*2412.00	114.55 PK			1.19 V	166	82.69	31.86
3	*2412.00	106.98 AV			1.19 V	166	75.12	31.86
4	2548.00	55.99 PK	74.00	-18.01	1.11 V	79	23.50	32.49
4	2548.00	45.20 AV	54.00	-8.80	1.11 V	79	12.71	32.49
5	4824.00	61.28 PK	74.00	-12.72	1.42 V	81	22.57	38.71
5	4824.00	48.39 AV	54.00	-5.61	1.42 V	81	9.68	38.71
6	7236.00	58.83 PK	74.00	-15.17	1.25 V	313	14.47	44.36
6	7236.00	47.28 AV	54.00	-6.72	1.25 V	313	2.92	44.36
7	9648.00	64.11 PK	74.00	-9.89	1.53 V	0	16.90	47.21

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 mini-PCI Module	**MODEL**	GN-WIKG
CHANNEL	6	**MODE**	CCK
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	**FREQUENCY RANGE**	1~25 GHz
ENVIRONMENTAL CONDITIONS	25 deg. C, 61% RH, 991 hPa	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
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	2062.00	53.12 PK	74.00	-20.88	1.31 H	327	22.62	30.50
1	2062.00	51.23 AV	54.00	-2.77	1.31 H	327	20.73	30.50
2	*2437.00	98.07 PK			1.03 H	85	66.05	32.02
2	*2437.00	90.52 AV			1.03 H	85	58.50	32.02
3	2494.00	45.23 PK	74.00	-28.77	1.34 H	138	12.86	32.37
3	2494.00	90.52 AV	54.00	-18.53	1.34 H	138	3.10	32.37
4	4874.00	53.00 PK	74.00	-21.00	1.27 H	230	14.27	38.73
4	4874.00	39.09 AV	54.00	-14.91	1.27 H	230	0.36	38.73

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	2062.00	53.99 PK	74.00	-20.01	1.62 V	270	23.49	30.50
1	2062.00	52.32 AV	54.00	-1.68	1.62 V	270	21.82	30.50
2	*2437.00	113.41 PK			1.20 V	158	81.39	32.02
2	*2437.00	105.88 AV			1.20 V	158	73.86	32.02
3	2494.00	53.96 PK	74.00	-20.04	1.11 V	15	21.59	32.37
3	2494.00	48.96 AV	54.00	-5.04	1.11 V	15	16.59	32.37
4	4874.00	55.37 PK	74.00	-18.63	1.21 V	18	16.64	38.73
4	4874.00	41.64 AV	54.00	-12.36	1.21 V	18	2.91	38.73
5	7311.00	60.87 PK	74.00	-13.13	1.62 V	314	16.27	44.61
5	7311.00	49.83 AV	54.00	-4.17	1.62 V	314	5.23	44.61
6	9748.00	59.18 PK	74.00	-14.82	1.66 V	0	12.01	47.17
6	9748.00	48.33 AV	54.00	-5.67	1.66 V	0	1.16	47.17

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 mini-PCI Module	**MODEL**	GN-WIKG
CHANNEL	11	**MODE**	CCK
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	**FREQUENCY RANGE**	1~25 GHz
ENVIRONMENTAL CONDITIONS	25 deg. C, 61% RH, 991 hPa	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
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	2088.00	52.04 PK	74.00	-21.96	1.34 H	199	21.37	30.67
1	2088.00	49.78 AV	54.00	-4.22	1.34 H	199	19.11	30.67
2	*2462.00	98.50 PK			1.00 H	164	66.33	32.17
2	*2462.00	90.93 AV			1.00 H	164	58.76	32.17
3	2486.00	43.94 PK	74.00	-30.06	1.00 H	164	11.62	32.32
3	2486.00	36.37 AV	54.00	-17.63	1.00 H	164	4.05	32.32
4	2544.00	49.02 PK	74.00	-24.98	1.21 H	175	16.54	32.48
4	2544.00	42.47 AV	54.00	-11.53	1.21 H	175	9.99	32.48
5	4924.00	54.04 PK	74.00	-19.96	1.53 H	15	15.32	38.72
5	4924.00	40.21 AV	54.00	-13.79	1.53 H	15	1.49	38.72

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	2088.00	53.19 PK	74.00	-20.81	1.00 V	65	22.52	30.67
1	2088.00	51.11 AV	54.00	-2.89	1.00 V	65	20.44	30.67
2	*2462.00	113.61 PK			1.15 V	190	81.44	32.17
2	*2462.00	105.20 AV			1.15 V	190	73.03	32.17
3	2486.00	60.50 PK	74.00	-13.50	1.15 V	190	28.18	32.32
3	2486.00	52.26 AV	54.00	-1.74	1.15 V	190	19.94	32.32
4	2544.00	60.81 PK	74.00	-13.19	1.24 V	279	28.33	32.48
4	2544.00	56.83 AV	54.00	2.83	1.24 V	279	24.35	32.48
5	4924.00	58.20 PK	74.00	-15.80	1.26 V	90	19.48	38.72
5	4924.00	45.08 AV	54.00	-8.92	1.26 V	90	6.36	38.72
6	7386.00	59.71 PK	74.00	-14.29	1.81 V	338	14.76	44.95
6	7386.00	48.17 AV	54.00	-5.83	1.81 V	338	3.22	44.95

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 mini-PCI Module	**MODEL**	GN-WIKG
CHANNEL	1	**MODE**	OFDM
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	**FREQUENCY RANGE**	1~25 GHz
ENVIRONMENTAL CONDITIONS	25 deg. C, 61% RH, 991 hPa	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
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	2038.00	52.79 PK	74.00	-21.21	1.40 H	172	22.45	30.34
1	2038.00	51.01 AV	54.00	-2.99	1.40 H	172	20.67	30.34
2	2390.00	47.31 PK	74.00	-26.69	1.15 H	136	15.55	31.76
2	2390.00	37.84 AV	54.00	-16.16	1.15 H	136	6.08	31.76
3	*2412.00	96.02 PK			1.15 H	136	64.16	31.86
3	*2412.00	86.55 AV			1.15 H	136	54.69	31.86
4	4824.00	51.33 PK	74.00	-22.67	1.17 H	314	12.62	38.71
4	4824.00	37.44 AV	54.00	-16.56	1.17 H	314	-1.27	38.71

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	2038.00	52.11 PK	74.00	-21.89	1.26 V	63	21.77	30.34
1	2038.00	49.74 AV	54.00	-4.26	1.26 V	63	19.40	30.34
2	2390.00	60.01 PK	74.00	-13.99	1.34 V	282	28.25	31.76
2	2390.00	50.82 AV	54.00	-3.18	1.34 V	282	19.06	31.76
3	*2412.00	108.72 PK			1.34 V	282	76.86	31.86
3	*2412.00	99.53 AV			1.34 V	282	67.67	31.86
4	2548.00	54.23 PK	74.00	-19.77	1.27 V	279	21.74	32.49
4	2548.00	44.55 AV	54.00	-9.45	1.27 V	279	12.06	32.49
5	4824.00	55.87 PK	74.00	-18.13	1.47 V	86	17.16	38.71
5	4824.00	42.48 AV	54.00	-11.52	1.47 V	86	3.77	38.71
6	7236.00	58.76 PK	74.00	-15.24	1.66 V	313	14.40	44.36
6	7236.00	44.61 AV	54.00	-9.39	1.66 V	313	0.25	44.36

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 mini-PCI Module	**MODEL**	GN-WIKG
CHANNEL	6	**MODE**	OFDM
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	**FREQUENCY RANGE**	1~25 GHz
ENVIRONMENTAL CONDITIONS	25 deg. C, 61% RH, 991 hPa	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
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	2062.00	53.19 PK	74.00	-20.81	1.29 H	329	22.69	30.50
1	2062.00	51.20 AV	54.00	-2.80	1.29 H	329	20.70	30.50
2	*2437.00	96.91 PK			1.09 H	133	64.89	32.02
2	*2437.00	87.81 AV			1.09 H	133	55.79	32.02
3	2494.00	45.65 PK	74.00	-28.35	1.08 H	134	13.28	32.37
3	2494.00	37.07 AV	54.00	-16.93	1.08 H	134	4.70	32.37

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	2062.00	53.56 PK	74.00	-20.44	1.11 V	213	23.06	30.50
1	2062.00	51.60 AV	54.00	-2.40	1.11 V	213	21.10	30.50
2	*2437.00	110.00 PK			1.16 V	213	77.98	32.02
2	*2437.00	100.61 AV			1.16 V	213	68.59	32.02
3	2494.00	55.18 PK	74.00	-18.82	1.10 V	12	22.81	32.37
3	2494.00	50.63 AV	54.00	-3.37	1.10 V	12	18.26	32.37
4	4874.00	53.53 PK	74.00	-20.47	1.16 V	213	14.80	38.73
4	4874.00	39.83 AV	54.00	-14.17	1.16 V	213	1.10	38.73

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 mini-PCI Module	**MODEL**	GN-WIKG
CHANNEL	11	**MODE**	OFDM
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	**FREQUENCY RANGE**	1~25 GHz
ENVIRONMENTAL CONDITIONS	25 deg. C, 61% RH, 991 hPa	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
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	2088.00	49.03 PK	74.00	-24.97	1.00 H	76	18.36	30.67
1	2088.00	46.48 AV	54.00	-7.52	1.00 H	76	15.81	30.67
2	*2462.00	95.71 PK			1.19 H	37	63.54	32.17
2	*2462.00	86.58 AV			1.19 H	37	54.41	32.17
3	2483.50	48.68 PK	74.00	-25.32	1.19 H	37	16.38	32.30
3	2483.50	39.55 AV	54.00	-14.45	1.19 H	37	7.25	32.30
4	2544.00	51.09 PK	74.00	-22.91	1.06 H	152	18.61	32.48
4	2544.00	44.81 AV	54.00	-9.19	1.06 H	152	12.33	32.48
5	4924.00	50.79 PK	74.00	-23.21	1.14 H	225	12.07	38.72
5	4924.00	37.39 AV	54.00	-16.61	1.14 H	225	-1.33	38.72

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	2088.00	53.62 PK	74.00	-20.38	1.19 V	279	22.95	30.67
1	2088.00	52.00 AV	54.00	-2.00	1.19 V	279	21.33	30.67
2	*2462.00	109.80 PK			1.15 V	197	77.63	32.17
2	*2462.00	99.03 AV			1.15 V	197	66.86	32.17
3	2483.50	62.15 PK	74.00	-11.85	1.15 V	197	29.85	32.30
3	2483.50	52.00 AV	54.00	-2.00	1.15 V	197	19.70	32.30
4	2544.00	63.75 PK	74.00	-10.25	1.15 V	154	31.27	32.48
5	4924.00	52.52 PK	74.00	-21.48	1.20 V	16	13.80	38.72
5	4924.00	38.03 AV	54.00	-15.97	1.20 V	16	-0.69	38.72

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

4.2.8 TEST RESULTS (B)

EUT	Wireless mini-PCI Module	**MODEL**	GN-WIKG
CHANNEL	11	**FREQUENCY RANGE**	Below 1000 MHz
INPUT POWER (SYSTEM)	120 Vac, 60Hz	**DETECTOR FUNCTION**	Quasi-Peak
ENVIRONMENTAL CONDITIONS	24 deg. C, 64% RH, 991 hPa	**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	64.99	29.82 QP	40.00	-10.18	4.00 H	142	16.78	13.05
2	99.98	32.73 QP	43.50	-10.77	2.00 H	139	21.82	10.91
3	133.03	34.98 QP	43.50	-8.52	3.00 H	172	21.09	13.89
4	166.85	41.04 QP	43.50	-2.46	1.75 H	162	26.80	14.24
5	199.12	39.90 QP	43.50	-3.60	1.75 H	166	28.56	11.34
6	232.16	29.68 QP	46.00	-16.32	1.50 H	295	17.04	12.63
7	267.15	28.07 QP	46.00	-17.93	1.00 H	148	14.52	13.55
8	467.37	40.08 QP	46.00	-5.92	2.00 H	241	21.89	18.20
9	531.52	37.15 QP	46.00	-8.85	1.50 H	175	18.02	19.13

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	64.99	33.63 QP	40.00	-6.37	1.50 V	31	20.59	13.05
2	99.98	30.79 QP	43.50	-12.71	1.25 V	73	19.88	10.91
3	133.03	28.06 QP	43.50	-15.44	3.00 V	103	14.17	13.89
4	166.07	34.68 QP	43.50	-8.82	1.50 V	235	20.36	14.32
5	199.12	30.87 QP	43.50	-12.63	2.00 V	283	19.53	11.34
6	467.37	37.12 QP	46.00	-8.88	1.25 V	211	18.92	18.20
7	533.47	34.81 QP	46.00	-11.19	1.25 V	76	15.65	19.17
8	566.51	32.38 QP	46.00	-13.62	1.00 V	205	12.47	19.91

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 mini-PCI Module	**MODEL**	GN-WIKG
CHANNEL	1	**MODE**	CCK
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	**FREQUENCY RANGE**	1~25 GHz
ENVIRONMENTAL CONDITIONS	24 deg. C, 64% RH, 991 hPa	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
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	1632.00	44.80 PK	74.00	-29.20	1.00 H	86	15.27	29.54
1	1632.00	35.31 AV	54.00	-18.69	1.00 H	86	5.78	29.54
2	2038.00	54.84 PK	74.00	-19.16	1.00 H	44	23.59	31.25
2	2038.00	52.47 AV	54.00	-1.53	1.00 H	44	21.22	31.25
3	2387.60	45.90 PK	74.00	-28.10	1.33 H	62	13.11	32.79
3	2387.60	36.21 AV	54.00	-17.79	1.33 H	62	3.42	32.79
4	*2412.00	105.68 PK			1.33 H	62	72.77	32.91
4	*2412.00	95.99 AV			1.33 H	62	63.08	32.91
5	2788.00	50.39 PK	74.00	-23.61	1.00 H	272	16.19	34.20
5	2788.00	37.91 AV	54.00	-16.09	1.00 H	272	3.71	34.20
6	2994.00	48.71 PK	74.00	-25.29	1.29 H	70	13.90	34.81
6	2994.00	37.62 AV	54.00	-16.38	1.29 H	70	2.81	34.81
7	4824.00	56.82 PK	74.00	-17.18	1.01 H	334	17.44	39.38
7	4824.00	43.18 AV	54.00	-10.82	1.01 H	334	3.80	39.38
8	9648.00	64.91 PK	74.00	-9.09	1.01 H	263	15.88	49.03
8	9648.00	52.07 AV	54.00	-1.93	1.01 H	263	3.04	49.03

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 mini-PCI Module	**MODEL**	GN-WIKG
CHANNEL	1	**MODE**	CCK
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	**FREQUENCY RANGE**	1~25 GHz
ENVIRONMENTAL CONDITIONS	24 deg. C, 64% RH, 991 hPa	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
TESTED BY	Allen Chang		

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	1632.00	46.65 PK	74.00	-27.35	1.21 V	243	17.12	29.54
1	1632.00	40.07 AV	54.00	-13.93	1.21 V	243	10.54	29.54
2	2038.00	52.65 PK	74.00	-21.35	1.25 V	317	21.40	31.25
2	2038.00	49.50 AV	54.00	-4.50	1.25 V	317	18.25	31.25
3	2387.60	53.26 PK	74.00	-20.74	1.12 V	243	20.47	32.79
3	2387.60	45.44 AV	54.00	-8.56	1.12 V	243	12.65	32.79
4	*2412.00	113.04 PK			1.12 V	243	80.13	32.91
4	*2412.00	105.22 AV			1.12 V	243	72.31	32.91
5	2788.00	60.75 PK	74.00	-13.25	1.17 V	245	26.55	34.20
5	2788.00	47.91 AV	54.00	-6.09	1.17 V	245	13.71	34.20
6	2994.00	51.19 PK	74.00	-22.81	1.00 V	360	16.38	34.81
6	2994.00	41.30 AV	54.00	-12.70	1.00 V	360	6.49	34.81
7	4824.00	59.88 PK	74.00	-14.12	1.11 V	79	20.50	39.38
7	4824.00	45.81 AV	54.00	-8.19	1.11 V	79	6.43	39.38
8	9648.00	65.35 PK	74.00	-8.65	1.11 V	24	16.32	49.03
8	9648.00	52.06 AV	54.00	-1.94	1.11 V	24	3.03	49.03

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 mini-PCI Module	MODEL	GN-WIKG
CHANNEL	6	MODE	CCK
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	FREQUENCY RANGE	1~25 GHz
ENVIRONMENTAL CONDITIONS	24 deg. C, 64% RH, 991 hPa	DETECTOR FUNCTION	Peak(PK) Average (AV)
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	2063.00	51.69 PK	74.00	-22.31	1.01 H	249	20.38	31.31
1	2063.00	47.85 AV	54.00	-6.15	1.01 H	249	16.54	31.31
2	*2437.00	103.76 PK			1.07 H	310	70.74	33.02
2	*2437.00	95.97 AV			1.07 H	310	62.95	33.02
3	2810.00	55.76 PK	74.00	-18.24	1.10 H	70	21.50	34.26
3	2810.00	42.68 AV	54.00	-11.32	1.10 H	70	8.42	34.26
4	4874.00	56.96 PK	74.00	-17.04	1.00 H	150	17.55	39.41
4	4874.00	43.35 AV	54.00	-10.65	1.00 H	150	3.94	39.41
5	9748.00	65.46 PK	74.00	-8.54	1.03 H	234	16.02	49.44
5	9748.00	51.34 AV	54.00	-2.66	1.03 H	234	1.90	49.44

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	2063.00	52.20 PK	74.00	-21.80	1.49 V	242	20.89	31.31
1	2063.00	49.37 AV	54.00	-4.63	1.49 V	242	18.06	31.31
2	*2437.00	112.97 PK			1.11 V	176	79.95	33.02
2	*2437.00	105.30 AV			1.11 V	176	72.28	33.02
3	2810.00	58.23 PK	74.00	-15.77	1.16 V	248	23.97	34.26
3	2810.00	45.54 AV	54.00	-8.46	1.16 V	248	11.28	34.26
4	4874.00	59.03 PK	74.00	-14.97	1.09 V	121	19.62	39.41
4	4874.00	44.71 AV	54.00	-9.29	1.09 V	121	5.30	39.41
5	9748.00	65.47 PK	74.00	-8.53	1.04 V	193	16.03	49.44
5	9748.00	51.94 AV	54.00	-2.06	1.04 V	193	2.50	49.44

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 mini-PCI Module	**MODEL**	GN-WIKG
CHANNEL	11	**MODE**	CCK
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	**FREQUENCY RANGE**	1~25 GHz
ENVIRONMENTAL CONDITIONS	24 deg. C, 64% RH, 991 hPa	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
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	2088.00	49.91 PK	74.00	-24.09	1.06 H	249	18.53	31.38
1	2088.00	45.44 AV	54.00	-8.45	1.06 H	249	14.17	31.38
2	*2462.00	103.62 PK			1.30 H	113	70.50	33.12
2	*2462.00	95.95 AV			1.30 H	113	62.83	33.12
3	2486.80	45.96 PK	74.00	-28.04	1.30 H	113	12.74	33.22
3	2486.80	38.29 AV	54.00	-15.71	1.30 H	113	5.07	33.22
4	2837.00	53.43 PK	74.00	-20.57	1.09 H	57	19.11	34.32
4	2837.00	40.27 AV	54.00	-13.73	1.09 H	57	5.95	34.32
5	4924.00	55.75 PK	74.00	-18.25	1.23 H	202	16.31	39.44
5	4924.00	43.05 AV	54.00	-10.95	1.23 H	202	3.61	39.44
6	9848.00	66.12 PK	74.00	-7.88	1.00 H	324	16.36	49.76
6	9848.00	52.72 AV	54.00	-1.28	1.00 H	324	2.96	49.76

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 mini-PCI Module	**MODEL**	GN-WIKG
CHANNEL	11	**MODE**	CCK
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	**FREQUENCY RANGE**	1~25 GHz
ENVIRONMENTAL CONDITIONS	24 deg. C, 64% RH, 991 hPa	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
TESTED BY	Allen Chang		

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	1632.00	47.22 PK	74.00	-26.78	1.24 V	328	17.69	29.54
1	1632.00	41.47 AV	54.00	-12.53	1.24 V	328	11.94	29.54
2	2088.00	52.07 PK	74.00	-21.93	1.28 V	31	20.69	31.38
2	2088.00	48.41 AV	54.00	-5.59	1.28 V	31	17.03	31.38
3	*2462.00	113.34 PK			1.07 V	201	80.22	33.12
3	*2462.00	105.06 AV			1.07 V	201	71.94	33.12
4	2486.80	55.68 PK	74.00	-18.32	1.07 V	201	22.46	33.22
4	2486.80	48.13 AV	54.00	-5.87	1.07 V	201	14.91	33.22
5	2883.00	55.43 PK	74.00	-18.57	1.17 V	248	21.01	34.42
5	2883.00	43.07 AV	54.00	-10.93	1.17 V	248	8.65	34.42
6	4924.00	59.32 PK	74.00	-14.68	1.19 V	138	19.88	39.44
6	4924.00	45.72 AV	54.00	-8.28	1.19 V	138	6.28	39.44
7	9848.00	66.28 PK	74.00	-7.72	1.20 V	360	16.52	49.76
7	**9848.00**	**52.74 AV**	**54.00**	**-1.26**	**1.20 V**	**360**	**2.98**	**49.76**

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 mini-PCI Module	MODEL	GN-WIKG
CHANNEL	1	MODE	OFDM
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	FREQUENCY RANGE	1~25 GHz
ENVIRONMENTAL CONDITIONS	24 deg. C, 64% RH, 991 hPa	DETECTOR FUNCTION	Peak(PK) Average (AV)
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	52.01 PK	74.00	-21.99	1.02 H	229	20.76	31.25
1	2038.00	48.78 AV	54.00	-5.22	1.02 H	229	17.53	31.25
2	2390.00	47.64 PK	74.00	-26.36	1.34 H	62	14.84	32.80
2	2390.00	38.18 AV	54.00	-15.82	1.34 H	62	5.38	32.80
3	*2412.00	101.96 PK			1.34 H	62	69.05	32.91
3	*2412.00	92.50 AV			1.34 H	62	59.59	32.91
4	2788.00	48.12 PK	74.00	-25.88	1.04 H	205	13.92	34.20
4	2788.00	35.91 AV	54.00	-18.09	1.04 H	205	1.71	34.20
5	4824.00	55.86 PK	74.00	-18.14	1.16 H	190	16.48	39.38
5	4824.00	42.06 AV	54.00	-11.94	1.16 H	190	2.68	39.38
6	9648.00	65.75 PK	74.00	-8.25	1.05 H	108	16.72	49.03
6	9648.00	51.96 AV	54.00	-2.04	1.05 H	108	2.93	49.03

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	2038.00	51.75 PK	74.00	-22.25	1.00 V	29	20.50	31.25
1	2038.00	47.86 AV	54.00	-6.14	1.00 V	29	16.61	31.25
2	2390.00	53.65 PK	74.00	-20.35	1.09 V	196	20.85	32.80
2	2390.00	44.18 AV	54.00	-9.82	1.09 V	196	11.38	32.80
3	*2412.00	107.97 PK			1.09 V	196	75.06	32.91
3	*2412.00	98.50 AV			1.09 V	196	65.59	32.91
4	2788.00	56.63 PK	74.00	-17.37	1.00 V	207	22.43	34.20
4	2788.00	42.46 AV	54.00	-11.54	1.00 V	207	8.26	34.20
5	4824.00	55.51 PK	74.00	-18.49	1.07 V	347	16.13	39.38
5	4824.00	42.27 AV	54.00	-11.73	1.07 V	347	2.89	39.38
6	9648.00	65.46 PK	74.00	-8.54	1.00 V	241	16.43	49.03
6	9648.00	52.31 AV	54.00	-1.69	1.00 V	241	3.28	49.03

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 mini-PCI Module	MODEL	GN-WIKG
CHANNEL	6	MODE	OFDM
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	FREQUENCY RANGE	1~25 GHz
ENVIRONMENTAL CONDITIONS	24 deg. C, 64% RH, 991 hPa	DETECTOR FUNCTION	Peak(PK) Average (AV)
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	2063.00	52.10 PK	74.00	-21.90	1.00 H	249	20.79	31.31
1	2063.00	48.50 AV	54.00	-5.50	1.00 H	249	17.19	31.31
2	*2437.00	99.13 PK			1.29 H	110	66.11	33.02
2	*2437.00	89.87 AV			1.29 H	110	56.85	33.02
3	2810.00	50.42 PK	74.00	-23.58	1.10 H	66	16.16	34.26
3	2810.00	37.89 AV	54.00	-16.11	1.10 H	66	3.63	34.26
4	4874.00	56.04 PK	74.00	-17.96	1.07 H	148	16.63	39.41
4	4874.00	42.46 AV	54.00	-11.54	1.07 H	148	3.05	39.41
5	9748.00	66.77 PK	74.00	-7.23	1.01 H	92	17.33	49.44
5	9748.00	52.02 AV	54.00	-1.98	1.01 H	92	2.58	49.44

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	2063.00	51.77 PK	74.00	-22.23	1.05 V	125	20.46	31.31
1	2063.00	48.28 AV	54.00	-5.72	1.05 V	125	16.97	31.31
2	*2437.00	107.48 PK			1.07 V	199	74.46	33.02
2	*2437.00	98.49 AV			1.07 V	199	65.47	33.02
3	2810.00	51.68 PK	74.00	-22.32	1.10 V	98	17.42	34.26
3	2810.00	39.18 AV	54.00	-14.82	1.10 V	98	4.92	34.26
4	4874.00	56.27 PK	74.00	-17.73	1.23 V	339	16.86	39.41
4	4874.00	42.49 AV	54.00	-11.51	1.23 V	339	3.08	39.41
5	9748.00	64.95 PK	74.00	-9.05	1.02 V	244	15.51	49.44
5	9748.00	52.00 AV	54.00	-2.00	1.02 V	244	2.56	49.44

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 mini-PCI Module	**MODEL**	GN-WIKG
CHANNEL	11	**MODE**	OFDM
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	**FREQUENCY RANGE**	1~25 GHz
ENVIRONMENTAL CONDITIONS	24 deg. C, 64% RH, 991 hPa	**DETECTOR FUNCTION**	Peak(PK) Average (AV)
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	2088.00	52.03 PK	74.00	-21.97	1.00 H	38	20.65	31.38
1	2088.00	49.03 AV	54.00	-4.97	1.00 H	38	17.65	31.38
2	*2462.00	98.53 PK			1.06 H	123	65.41	33.12
2	*2462.00	88.94 AV			1.06 H	123	55.82	33.12
3	2483.50	46.22 PK	74.00	-27.78	1.06 H	123	13.01	33.21
3	2483.50	36.63 AV	54.00	-17.37	1.06 H	123	3.42	33.21
4	4924.00	56.21 PK	74.00	-17.79	1.00 H	151	16.77	39.44
4	4924.00	42.48 AV	54.00	-11.52	1.00 H	151	3.04	39.44
5	9848.00	66.22 PK	74.00	-7.78	1.08 H	247	16.46	49.76
5	9848.00	52.65 AV	54.00	-1.35	1.08 H	247	2.89	49.76

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	2088.00	51.30 PK	74.00	-22.70	1.46 V	244	19.92	31.38
1	2088.00	47.70 AV	54.00	-6.30	1.46 V	244	16.32	31.38
2	*2462.00	106.02 PK			1.33 V	221	72.90	33.12
2	*2462.00	96.69 AV			1.33 V	221	63.57	33.12
3	2483.50	53.71 PK	74.00	-20.29	1.33 V	221	20.50	33.21
3	2483.50	44.38 AV	54.00	-9.62	1.33 V	221	11.17	33.21
4	2835.00	50.16 PK	74.00	-23.84	1.42 V	249	15.84	34.32
4	2835.00	37.95 AV	54.00	-16.05	1.42 V	249	3.63	34.32
5	4924.00	55.79 PK	74.00	-18.21	1.00 V	247	16.35	39.44
5	4924.00	42.47 AV	54.00	-11.53	1.00 V	247	3.03	39.44
6	9848.00	65.65 PK	74.00	-8.35	1.15 V	97	15.89	49.76
6	9848.00	52.73 AV	54.00	-1.27	1.15 V	97	2.97	49.76

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.

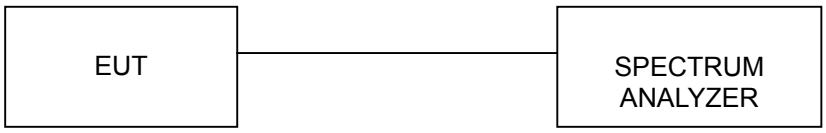
4.3.3 TEST PROCEDURE

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

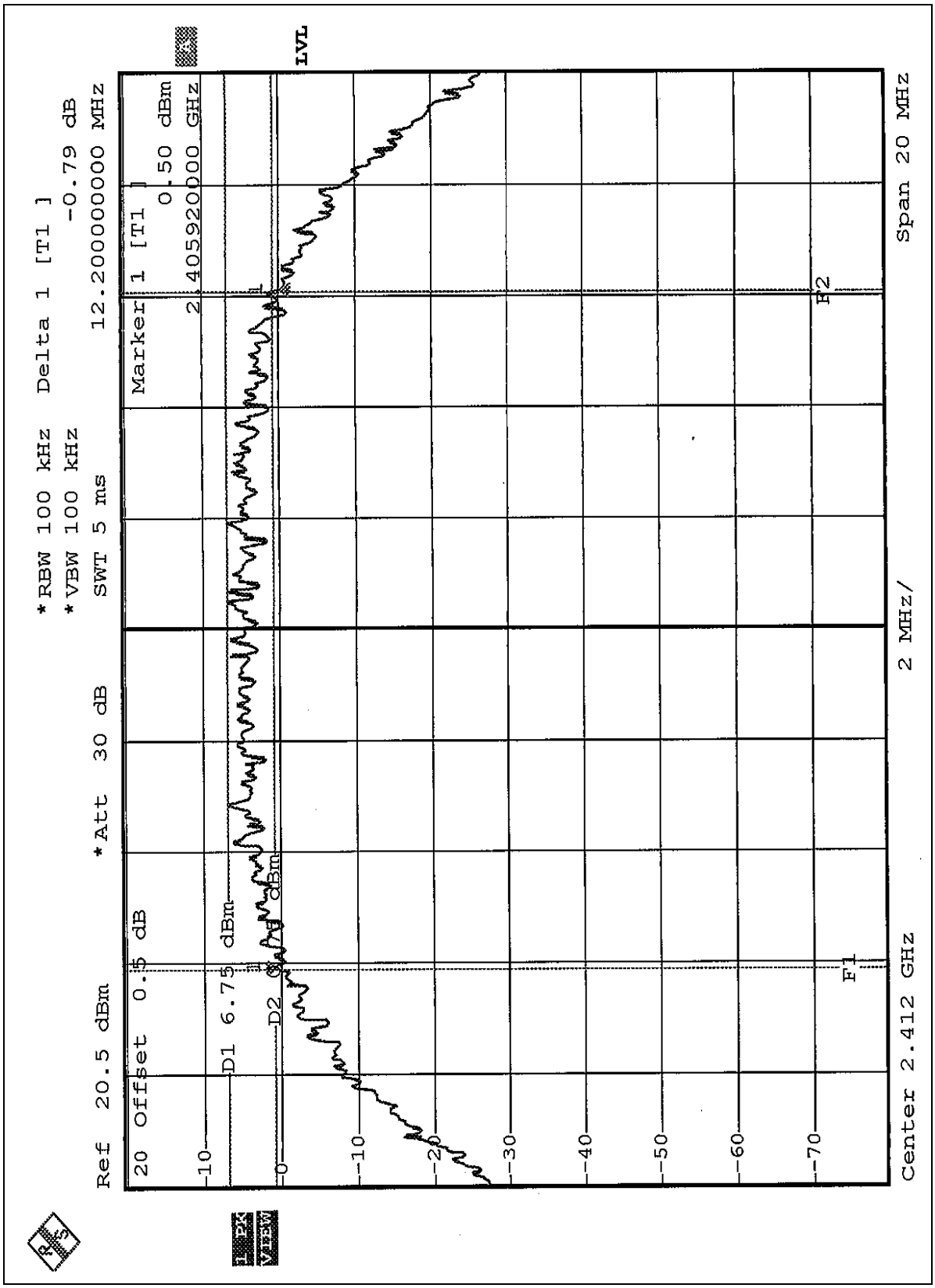
The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.3.7 TEST RESULTS (A) & (B)

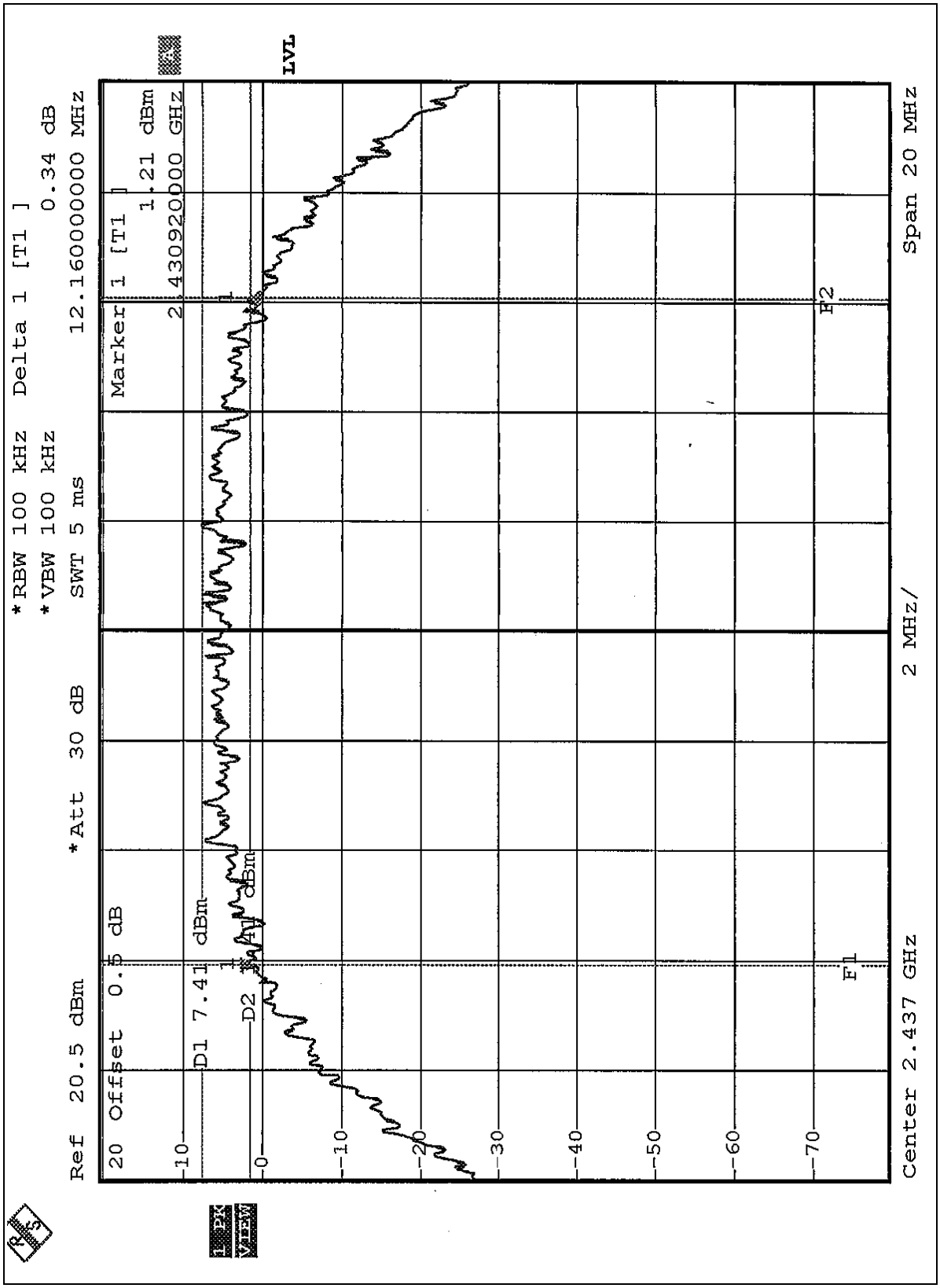
EUT	Wireless mini-PCI Module	**MODEL**	GN-WIKG
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	**MODE**	CCK
ENVIRONMENTAL CONDITIONS	24 deg. C, 65% RH, 991 hPa	**TESTED BY**	Allen Chang

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS/FAIL
1	2412	12.20	0.5	PASS
6	2437	12.16	0.5	PASS
11	2462	12.12	0.5	PASS

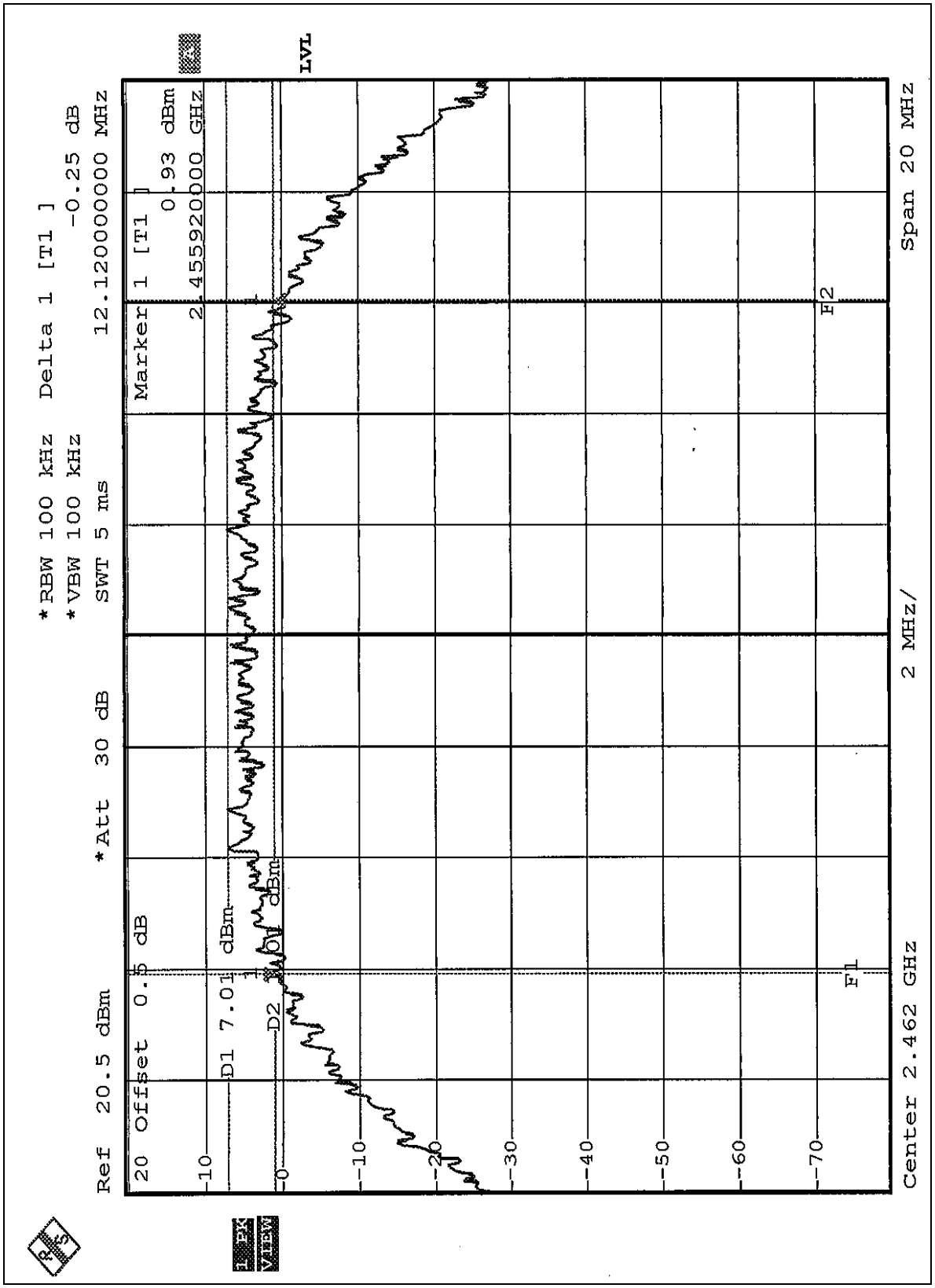
CH1


RBW 100 kHz
VBW 100 kHz
SWT 5 ms
Delta 1 [T1]
-0.79 dB
12.200000000 MHz
Marker 1 [T1]
0.50 dBm
2.405920000 GHz
Att 30 dB
Offset 0.5 dB
Ref 20.5 dBm
D1 6.75 dBm
D2 dBm
Center 2.412 GHz
2 MHz/
Span 20 MHz
F1
F2
RBW
VBW

CH6


*RBW 100 kHz
*VBW 100 kHz
Ref 20.5 dBm
20 Offset 0.5 dB
*Att 30 dB
SWT 5 ms
Delta 1 [T1]
0.34 dB
12.160000000 MHz
Marker 1 [T1]
1.21 dBm
2.430920000 GHz
D1 7.41 dBm
D2 dBm
Center 2.437 GHz
2 MHz/
Span 20 MHz
LVL

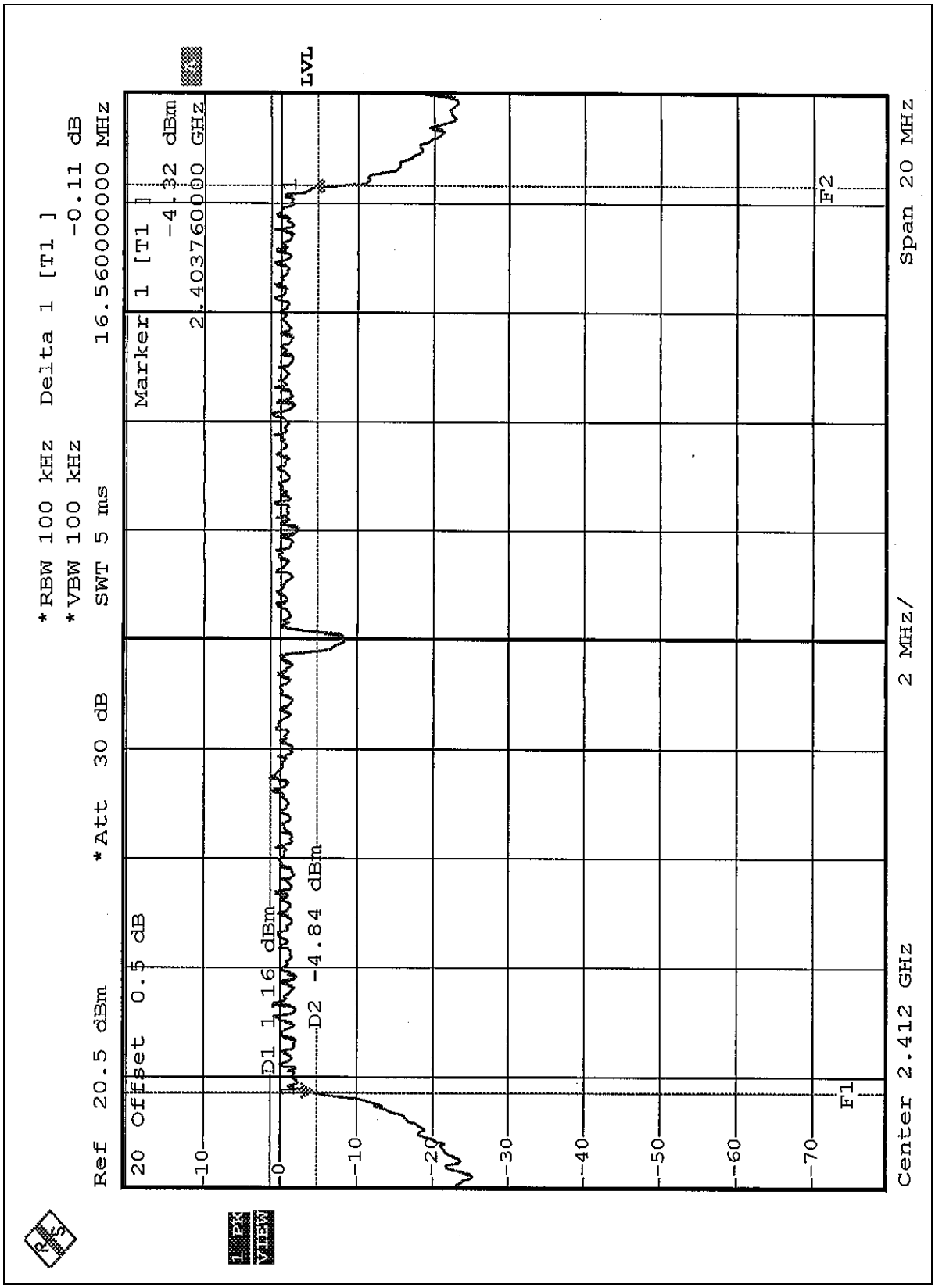
CH11


RBW 100 kHz
VBW 100 kHz
SWT 5 ms
Delta 1 [T1]
-0.25 dB
12.120000000 MHz
Att 30 dB
Ref 20.5 dBm
Offset 0.5 dB
Marker 1 [T1]
0.93 dBm
2.455920000 GHz
LVL
D1 7.0 dBm
D2 dBm
F1
F2
Center 2.462 GHz
2 MHz/
Span 20 MHz
1 EX VIEW

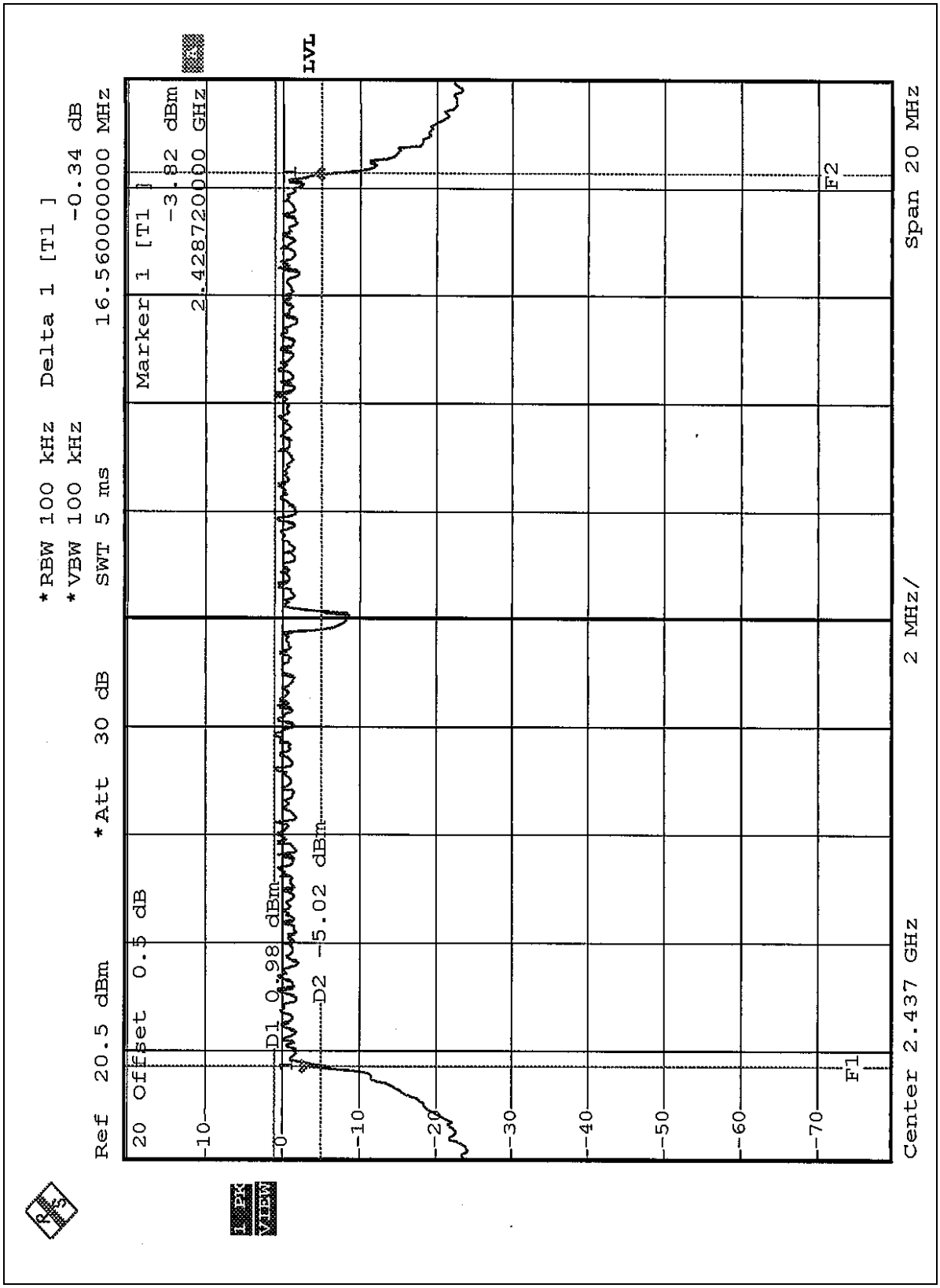
EUT	Wireless mini-PCI Module	**MODEL**	GN-WIKG
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	**MODE**	OFDM
ENVIRONMENTAL CONDITIONS	24 deg. C, 65% RH, 991 hPa	**TESTED BY**	Allen Chang

CHANNEL	CHANNEL FREQUENCY (MHz)	6 dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS/FAIL
1	2412	16.56	0.5	PASS
6	2437	16.56	0.5	PASS
11	2462	16.60	0.5	PASS

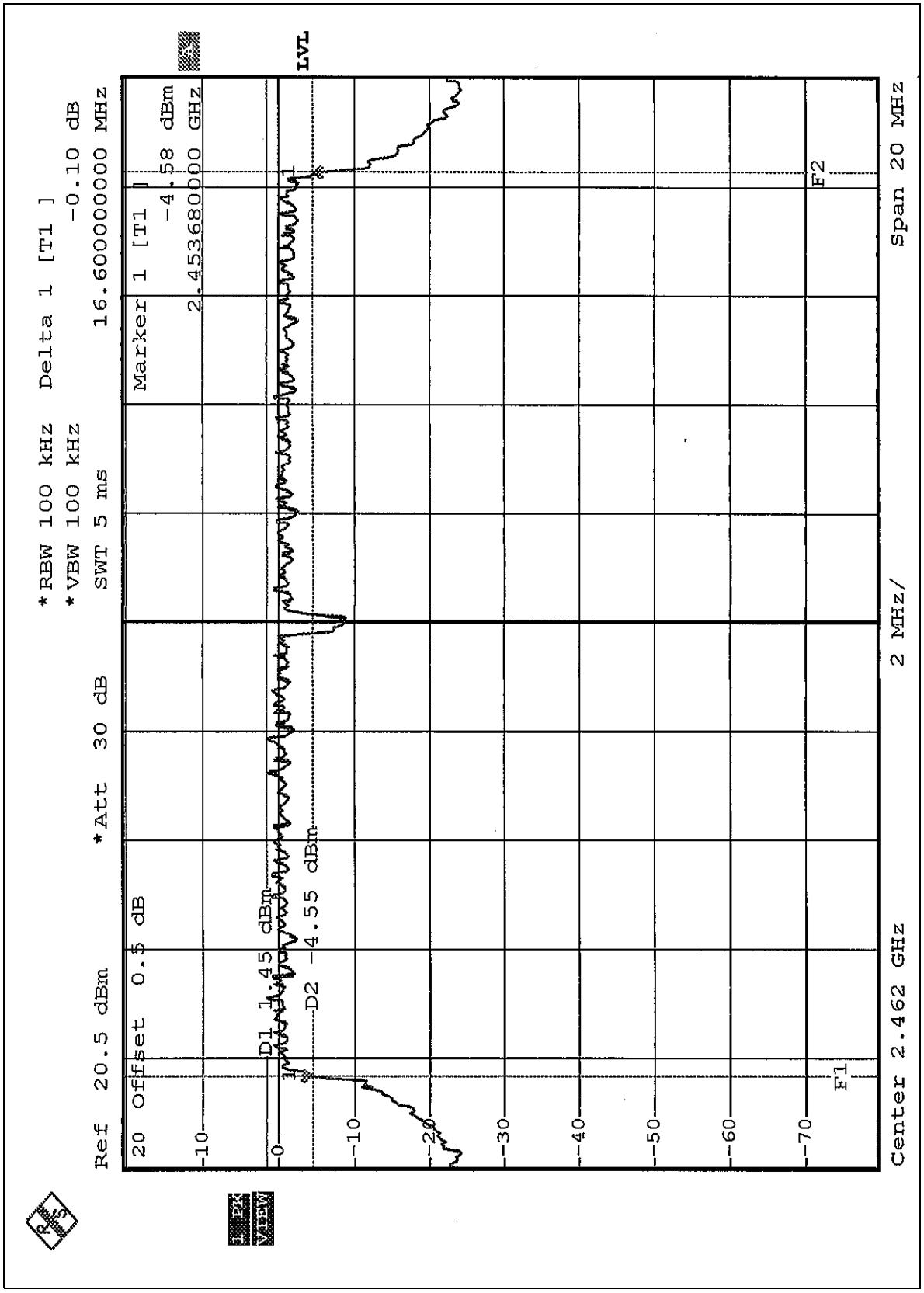
CH1


Ref 20.5 dBm
20 Offset 0.5 dB
*Att 30 dB
*RBW 100 kHz
*VBW 100 kHz
SWT 5 ms
Delta 1 [T1]
-0.11 dB
16.560000000 MHz
Marker 1 [T1]
-4.32 dBm
2.403760000 GHz
D1 1.16 dBm
D2 -4.84 dBm
LVL
F1
F2
Center 2.412 GHz
2 MHz/
Span 20 MHz
1 PK
VBW

CH6


Ref 20.5 dBm
Offset 0.5 dB
*Att 30 dB
*RBW 100 kHz
*VBW 100 kHz
SWT 5 ms
Delta 1 [T1] -0.34 dB
16.560000000 MHz
Marker 1 [T1] -3.82 dBm
2.428720000 GHz
D1 0.98 dBm
D2 -5.02 dBm
Center 2.437 GHz
2 MHz/
Span 20 MHz
F1
F2
1 PK
VIEW

CH11


*RBW 100 kHz
*VBW 100 kHz
Ref 20.5 dBm
20 Offset 0.5 dB
*Att 30 dB
SWT 5 ms
Delta 1 [T1]
-0.10 dB
16.60000000 MHz
Marker 1 [T1]
-4.58 dBm
2.45368000 GHz
LVL
D1 1.45 dBm
D2 -4.55 dBm
F1
F2
Center 2.462 GHz
2 MHz/
Span 20 MHz

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.

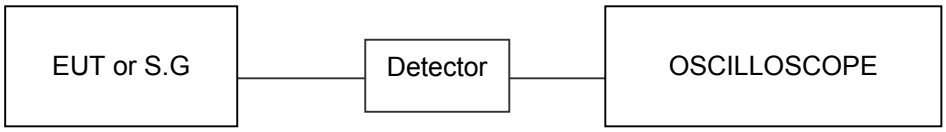
4.4.3 TEST PROCEDURES

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 4.3.6

4.4.7 TEST RESULTS (A) & (B)

EUT	Wireless mini-PCI Module	**MODEL**	GN-WIKG
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	**MODE**	CCK
ENVIRONMENTAL CONDITIONS	24 deg. C, 65% RH, 991 hPa	**TESTED BY**	Allen Chang

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	19.00	30	PASS
6	2437	19.50	30	PASS
11	2462	19.00	30	PASS

EUT	Wireless mini-PCI Module	**MODEL**	GN-WIKG
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	**MODE**	OFDM
ENVIRONMENTAL CONDITIONS	24 deg. C, 65% RH, 991 hPa	**TESTED BY**	Allen Chang

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	17.50	30	PASS
6	2437	17.50	30	PASS
11	2462	17.50	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

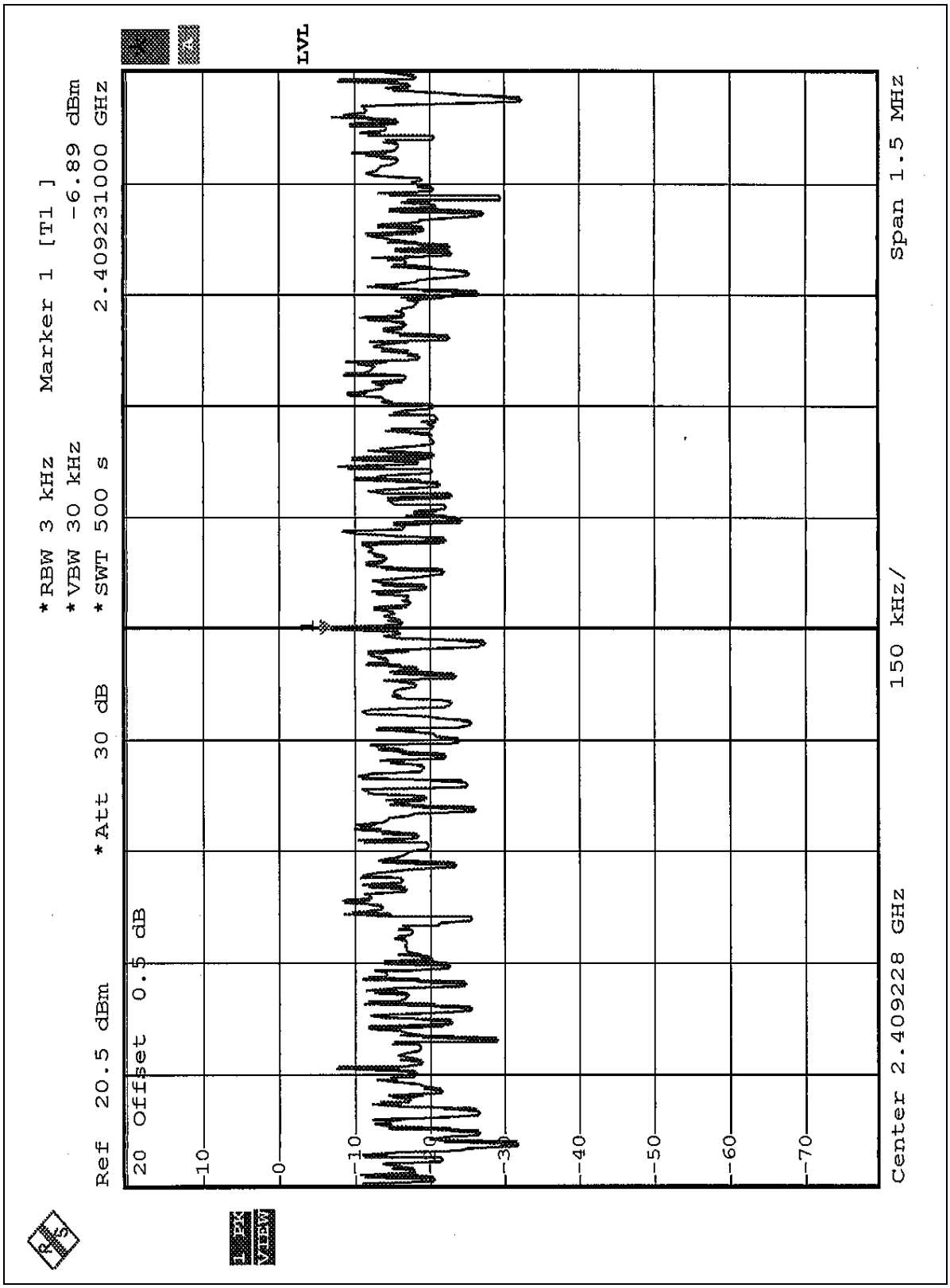
Same as 4.3.6

4.5.7 TEST RESULTS (A) & (B)

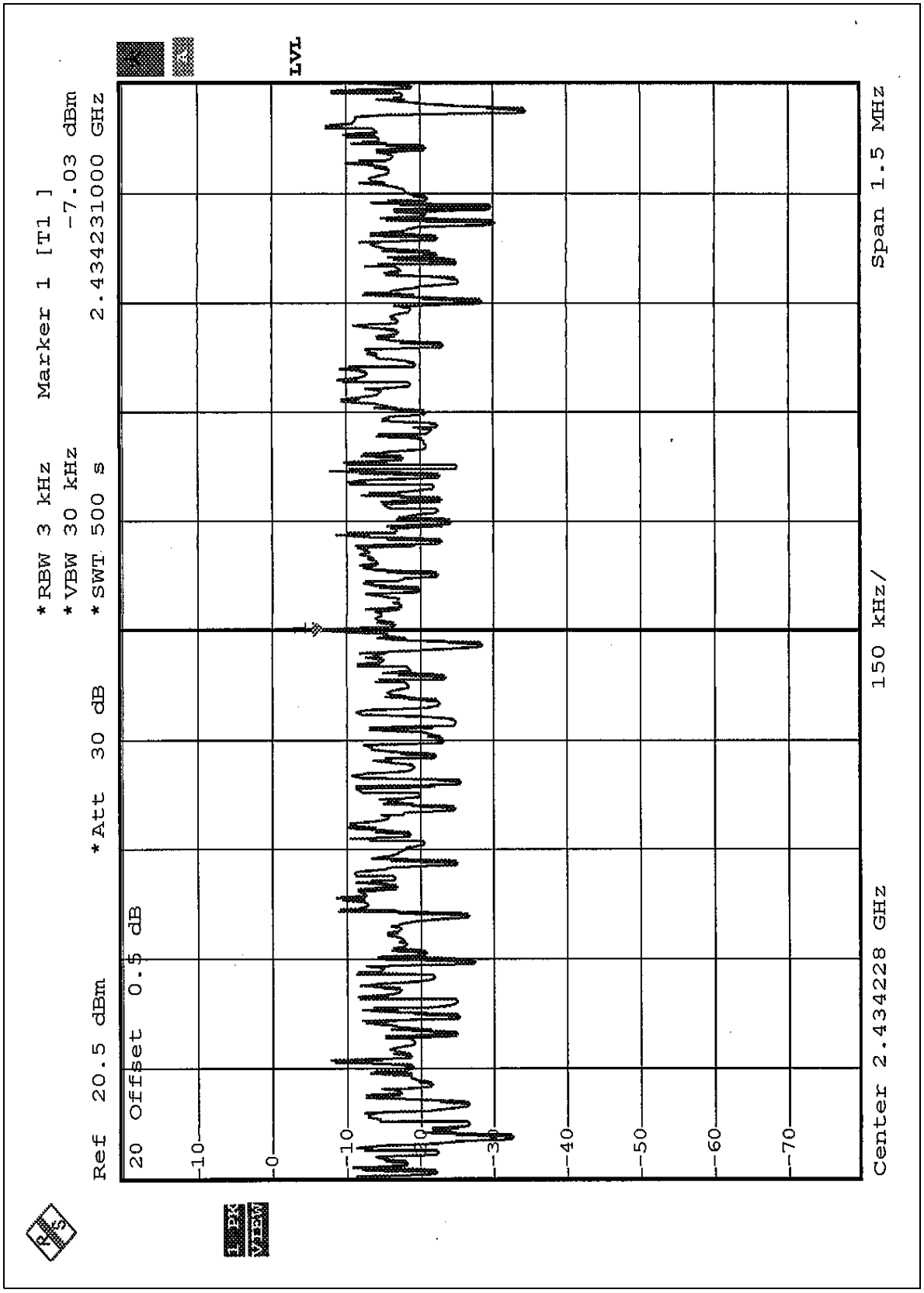
EUT	Wireless mini-PCI Module	**MODEL**	GN-WIKG
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	**MODE**	CCK
ENVIRONMENTAL CONDITIONS	24 deg. C, 65% RH, 991 hPa	**TESTED BY**	Allen Chang

CHANNEL NUMBER	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3KHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-6.89	8	PASS
6	2437	-7.03	8	PASS
11	2462	-6.39	8	PASS

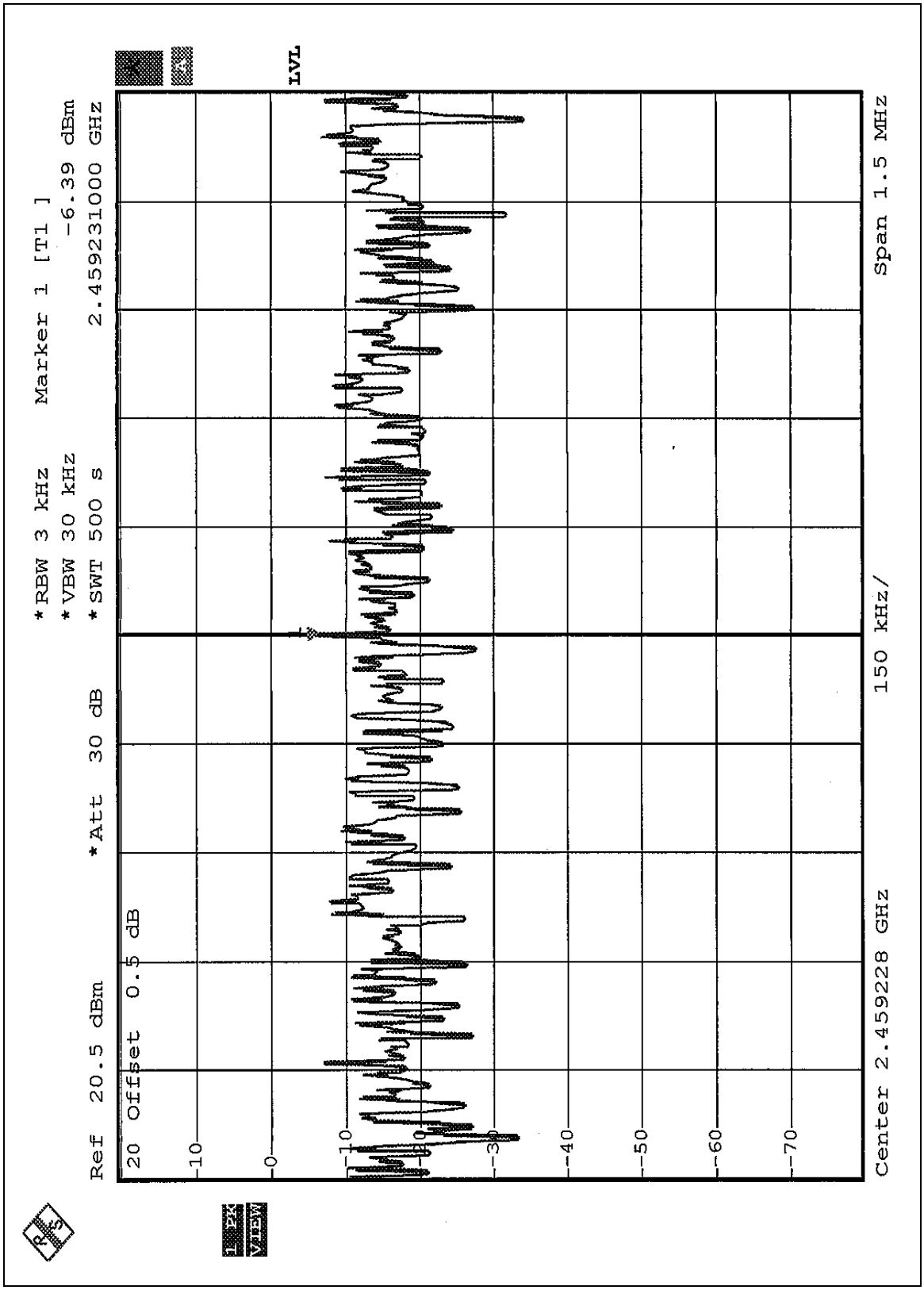
CH1


Ref 20.5 dBm
20 Offset 0.5 dB
*Att 30 dB
*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-6.89 dBm
2.409231000 GHz
Center 2.409228 GHz
150 kHz/
Span 1.5 MHz
LVL
1 PK
VIEW
1 SPK
VBW

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]
-7.03 dBm
2.434231000 GHz
Center 2.434228 GHz
150 kHz/
Span 1.5 MHz
1 PK
VIEW

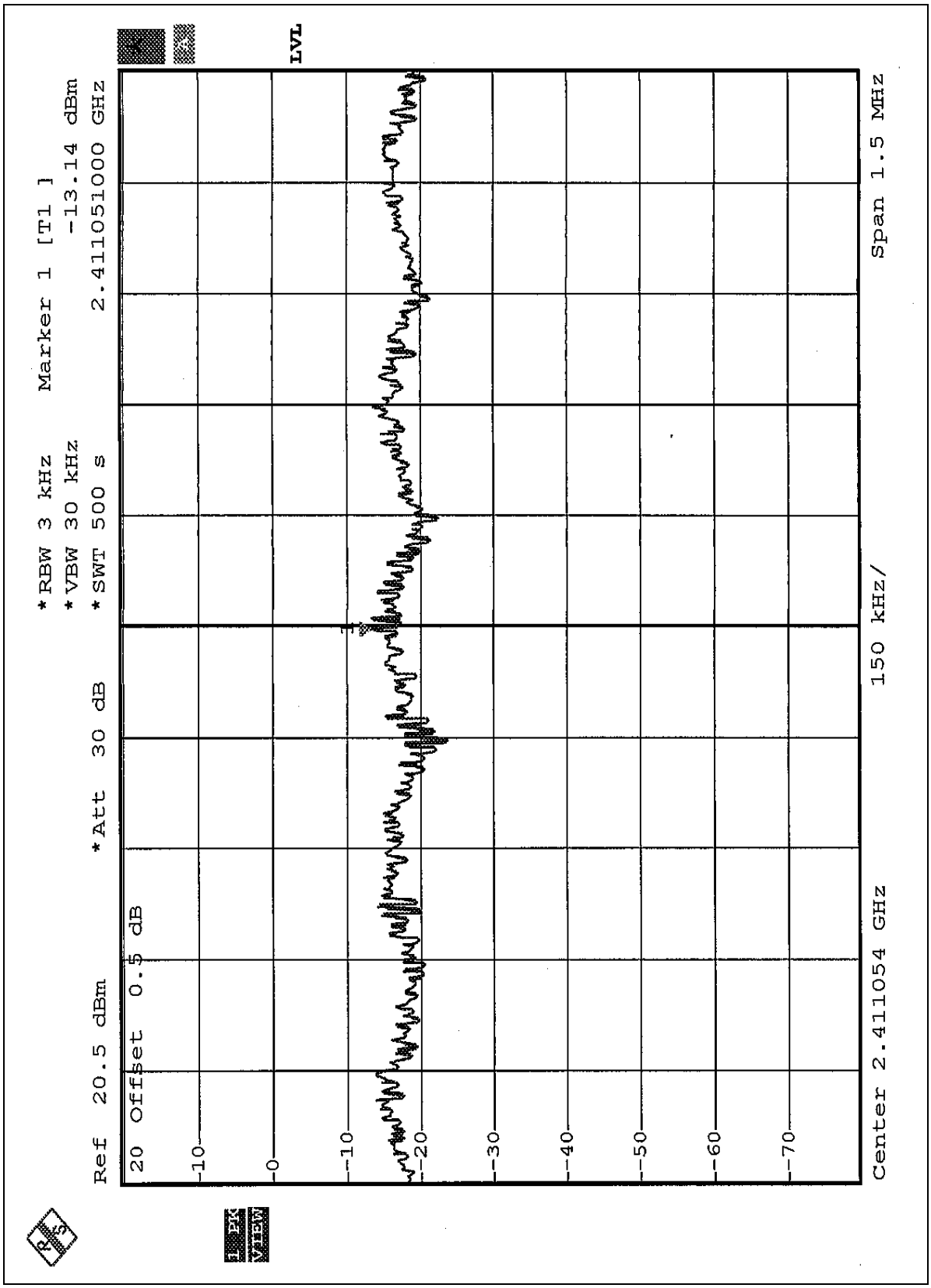
CH11


Ref 20.5 dBm
20 Offset 0.5 dB
*Att 30 dB
*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-6.39 dBm
2.459231000 GHz
Center 2.459228 GHz
150 kHz/
Span 1.5 MHz
1VL
1 PK
VIEW

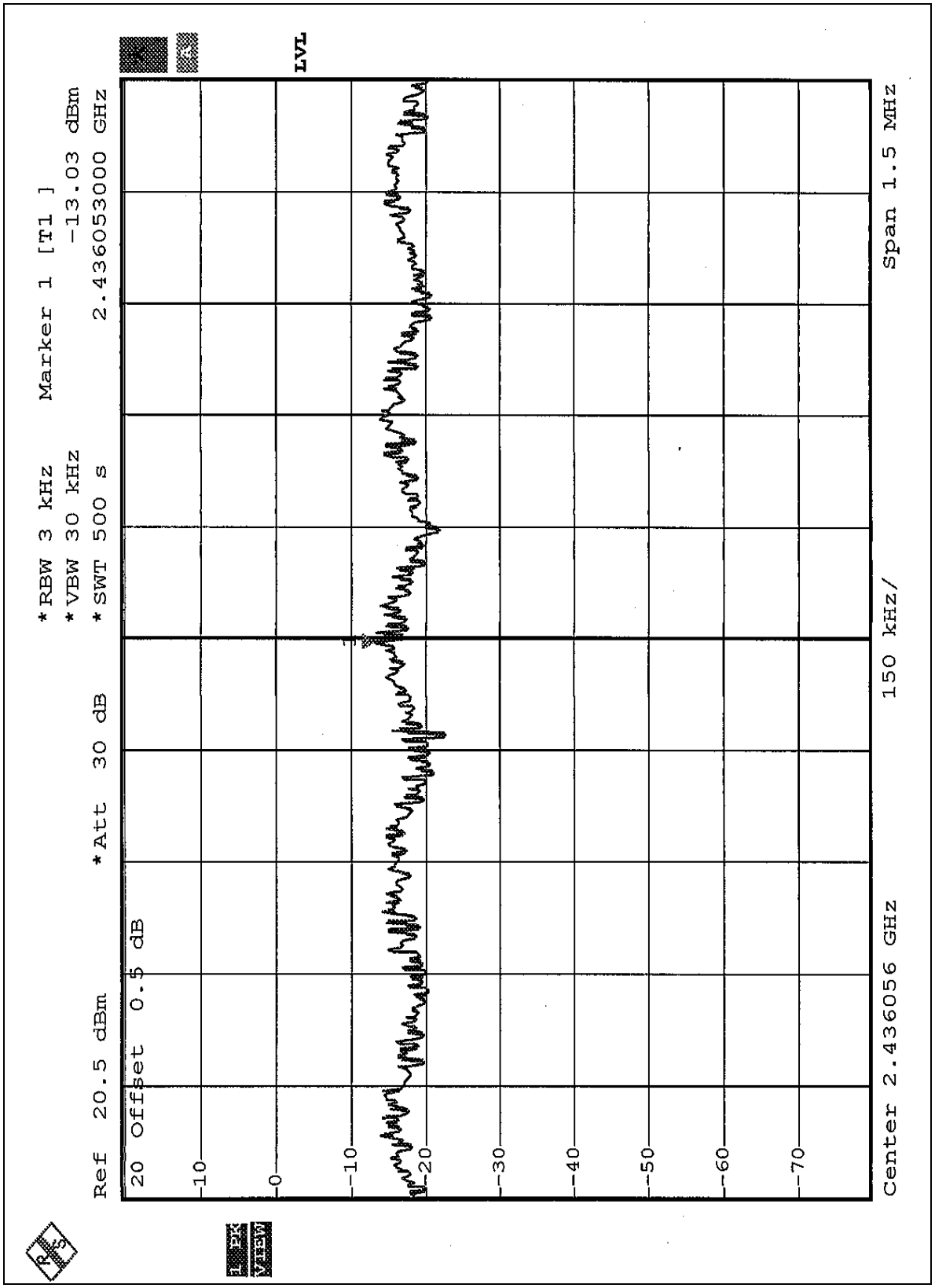
EUT	Wireless mini-PCI Module	**MODEL**	GN-WIKG
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	**MODE**	OFDM
ENVIRONMENTAL CONDITIONS	24 deg. C, 65% RH, 991 hPa	**TESTED BY**	Allen Chang

CHANNEL NUMBER	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3KHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-13.14	8	PASS
6	2437	-13.03	8	PASS
11	2462	-12.96	8	PASS

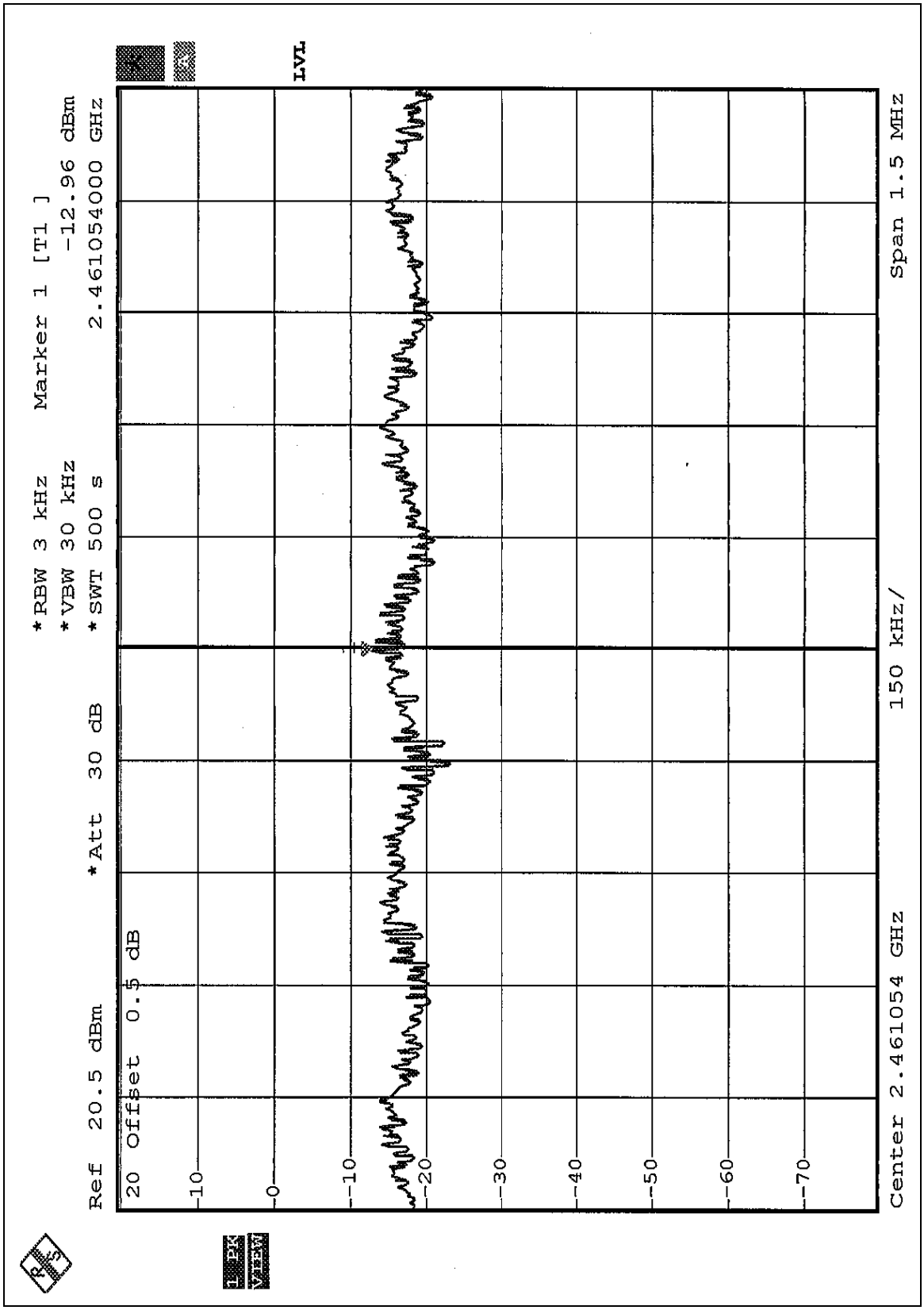
CH1


Ref 20.5 dBm
20 Offset 0.5 dB
*Att 30 dB
*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-13.14 dBm
2.411051000 GHz
LVL
Center 2.411054 GHz
150 kHz/
Span 1.5 MHz
1 PK
VIEW

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]
-13.03 dBm
2.436053000 GHz
LVL
Center 2.436056 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]
-12.96 dBm
2.461054000 GHz
LVL
Center 2.461054 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 4.3.6

4.6.6 TEST RESULTS (A)

The spectrum plots are attached on the following 8 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 (CCK):

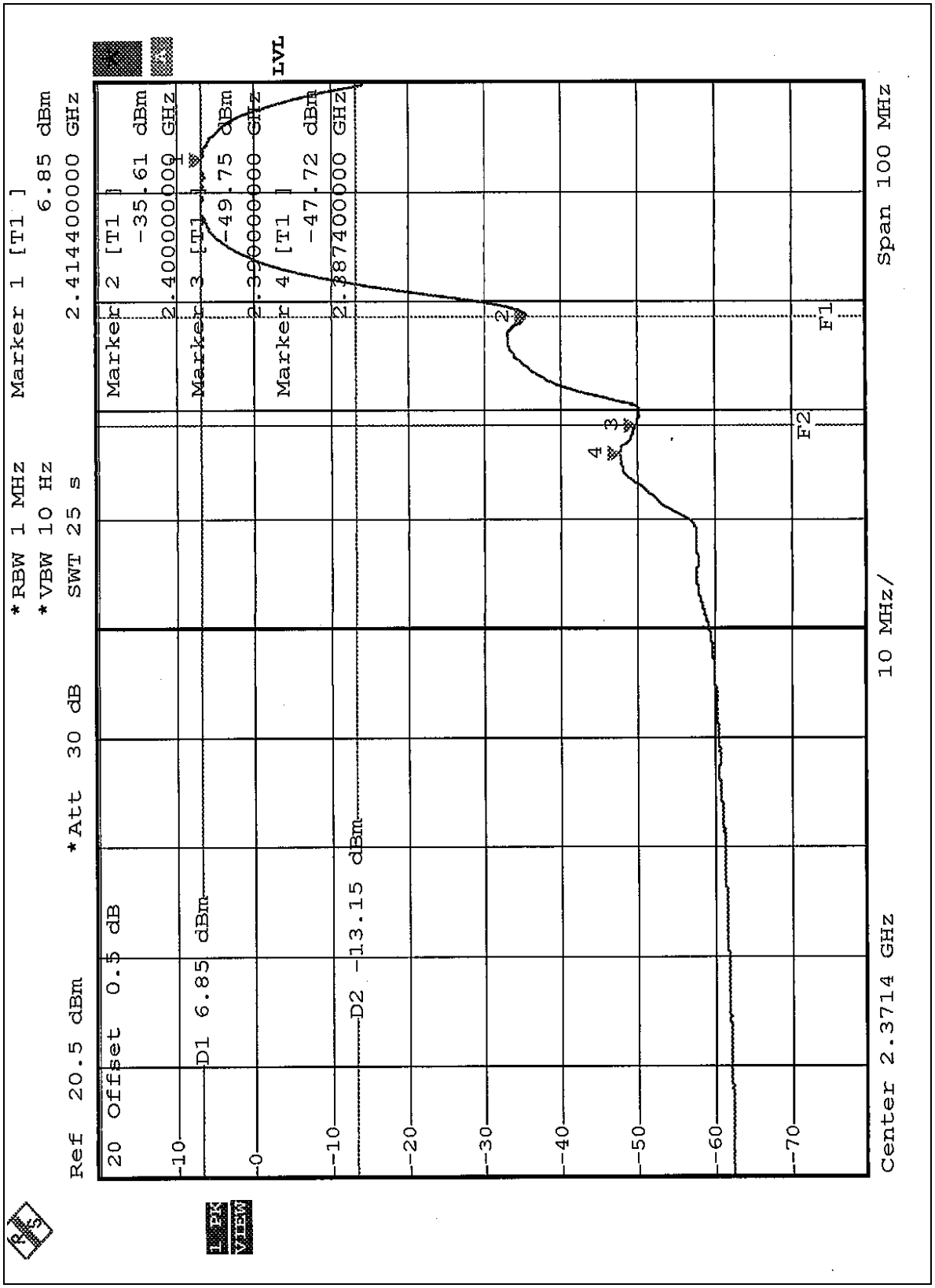
The band edge emission plot on the following 1~2 pages show 54.57dB delta between carrier maximum power and local maximum emission in restrict band (2.3874GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 106.98dBuV/m, so the maximum field strength in restrict band is 106.98-54.57=52.41dBuV/m which is under 54dBuV/m limit.

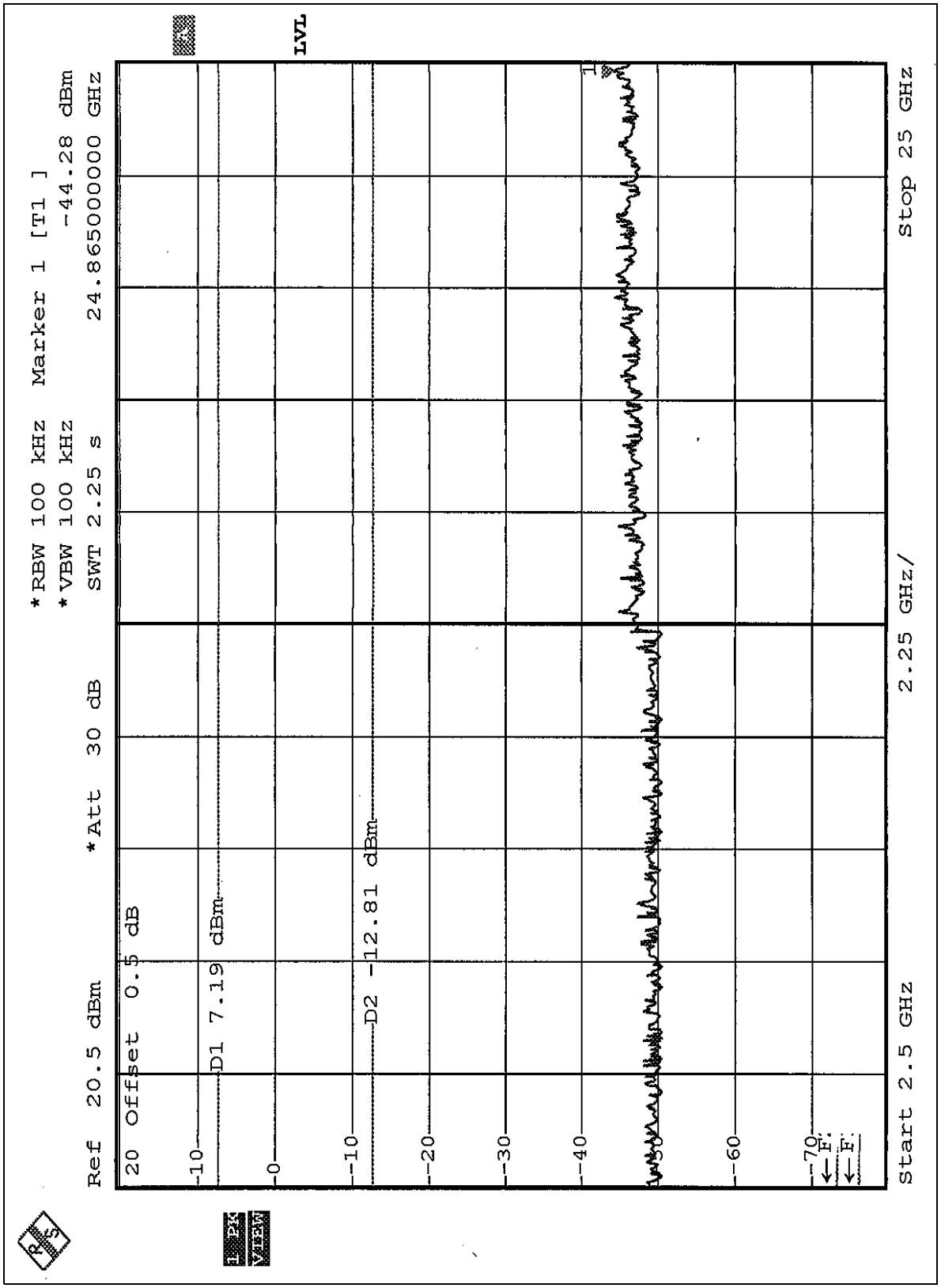
The band edge emission plot on the following 3~4 pages show 52.26dB delta between carrier maximum power and local maximum emission in restrict band (2.4865GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 105.20dBuV/m, so the maximum field strength in restrict band is 105.20-52.26=52.94dBuV/m which is under 54dBuV/m limit.

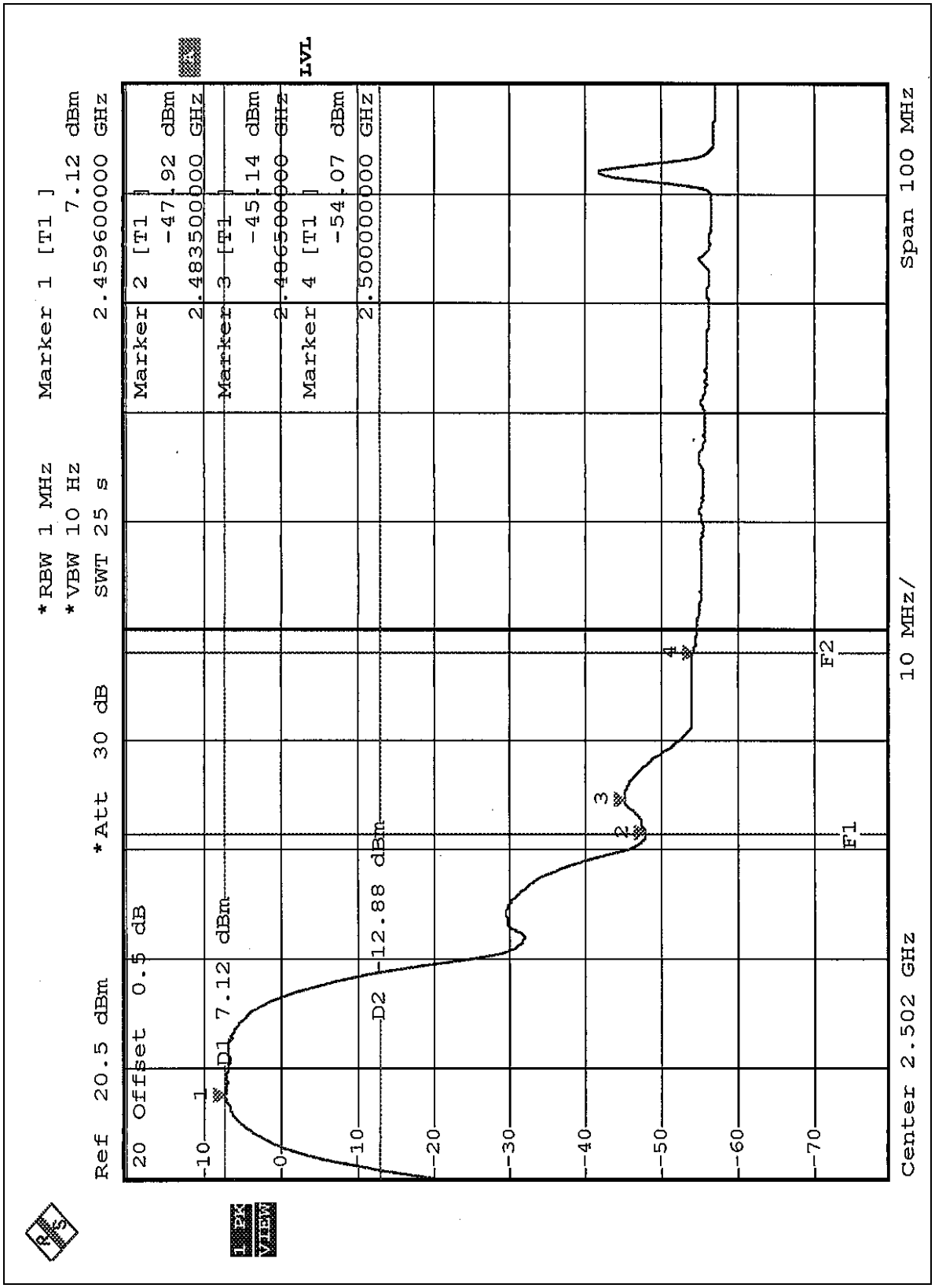
NOTE (OFDM):

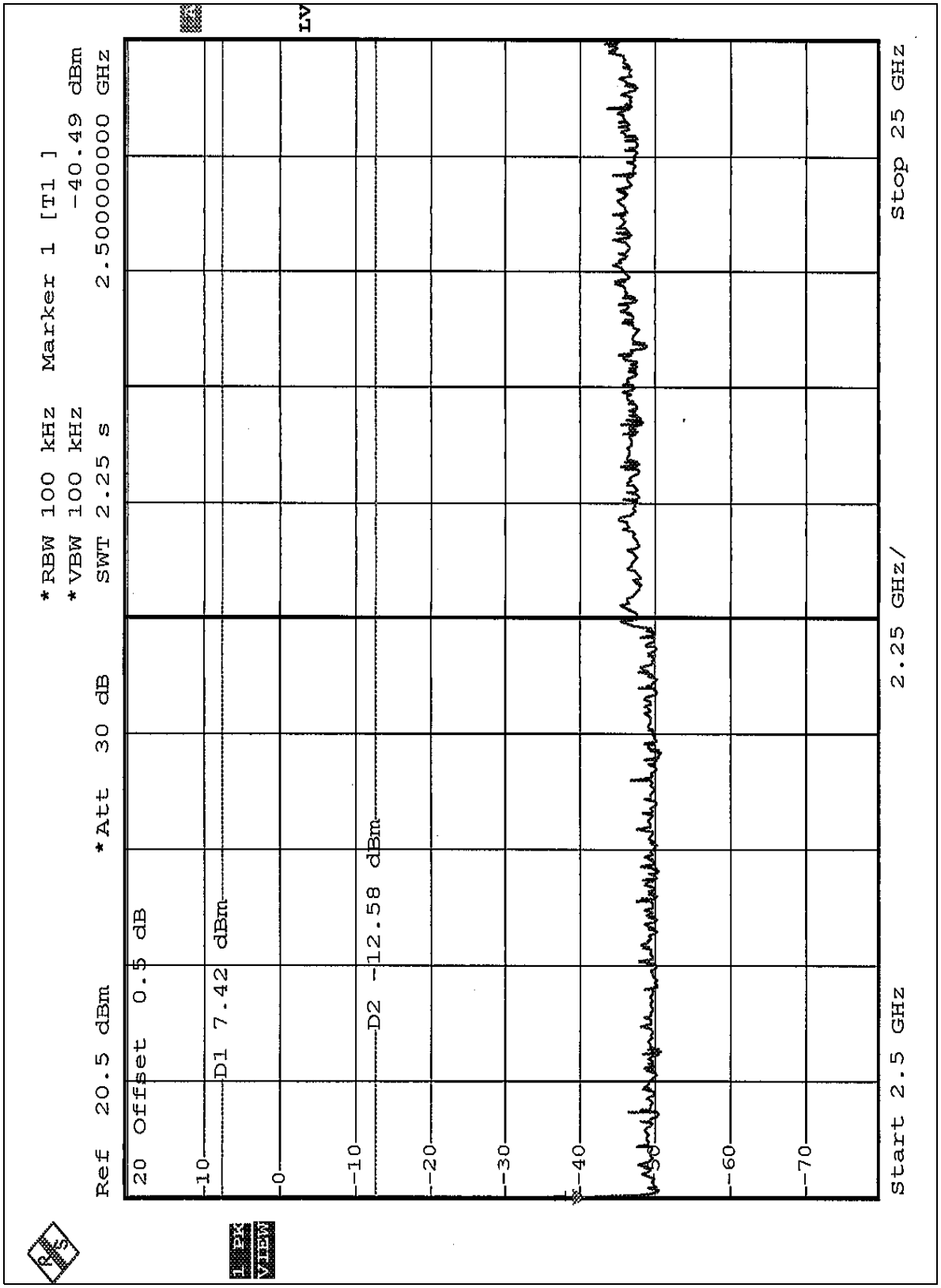
The band edge emission plot on the following 5~6 pages show 47.44dB delta between carrier maximum power and local maximum emission in restrict band (2.3898GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 99.53dBuV/m, so the maximum field strength in restrict band is 99.53-47.44=52.09dBuV/m which is under 54dBuV/m limit.

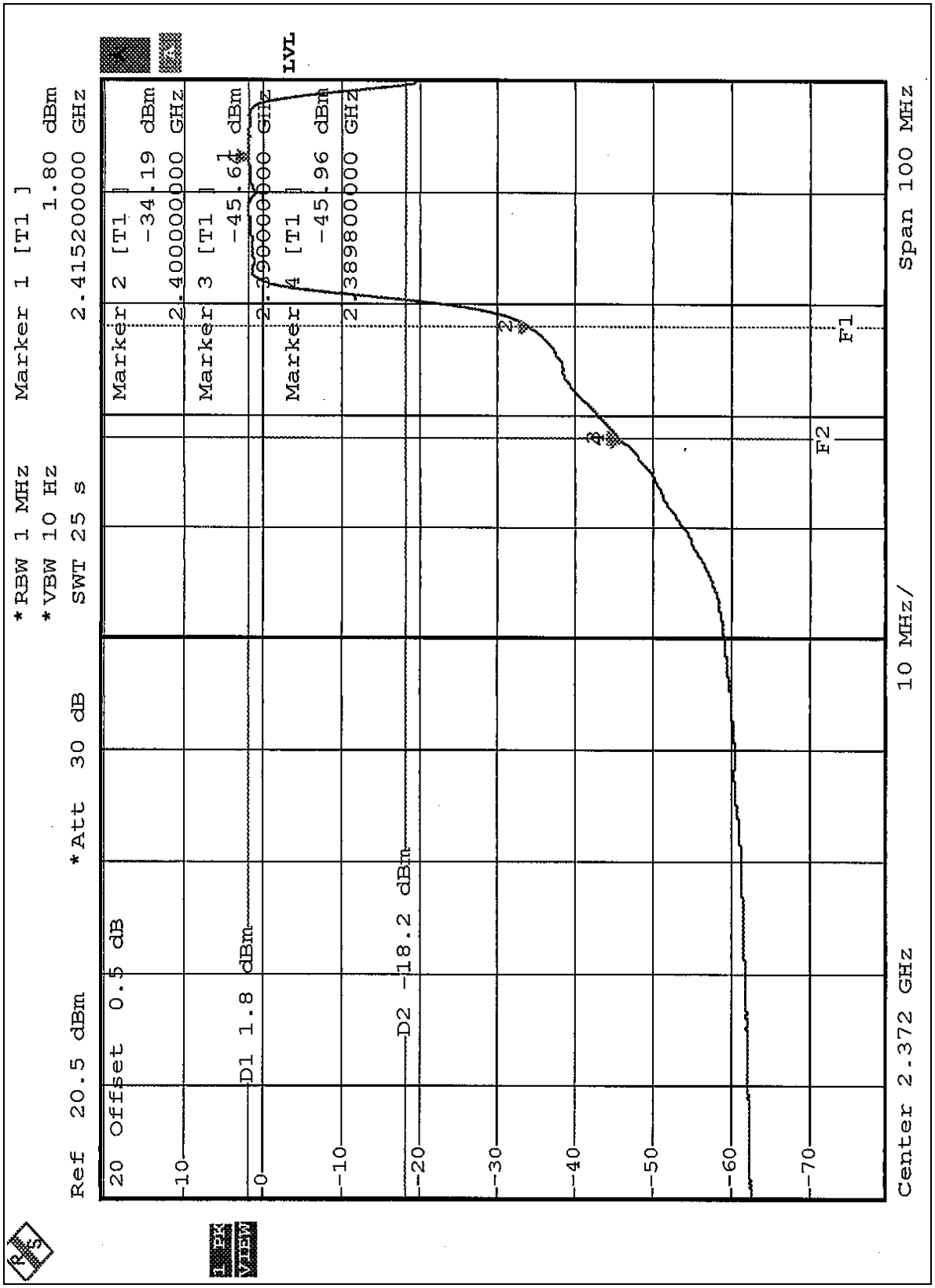
The band edge emission plot on the following 7~8 pages show 46.19dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 99.03dBuV/m, so the maximum field strength in restrict band is 99.03-46.19=52.84dBuV/m which is under 54dBuV/m limit.

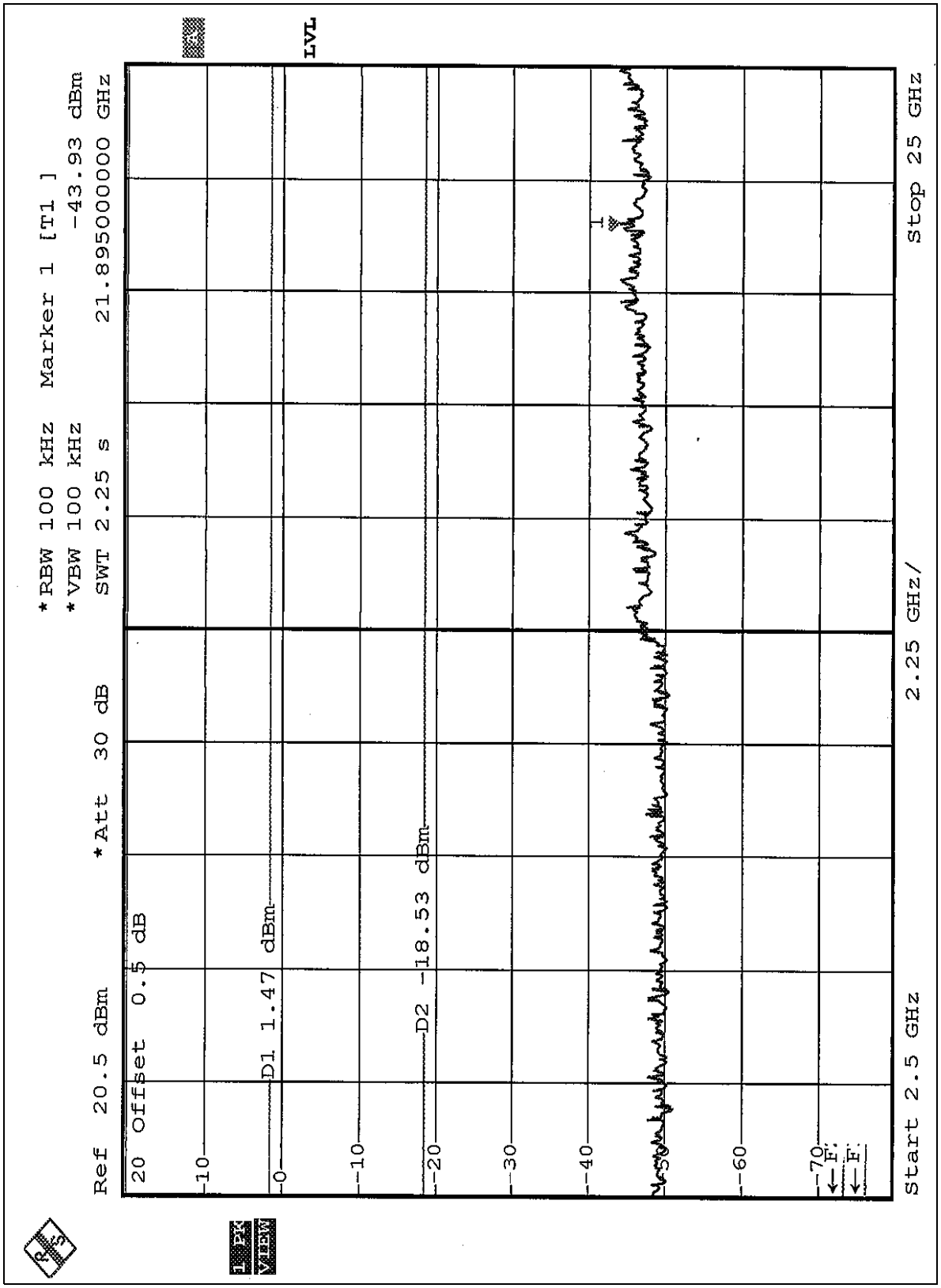

RBW 1 MHz
VBW 10 Hz
SWT 25 s
Marker 1 [T1]
6.85 dBm
2.414400000 GHz
Ref 20.5 dBm
Offset 0.5 dB
Att 30 dB
Marker 2 [T1]
-35.61 dBm
2.400000000 GHz
Marker 3 [T1]
-49.75 dBm
2.390000000 GHz
Marker 4 [T1]
-47.72 dBm
2.387400000 GHz
D1 6.85 dBm
D2 -13.15 dBm
LVL
Center 2.3714 GHz
10 MHz/
Span 100 MHz
F1
F2
1 PK VIEW

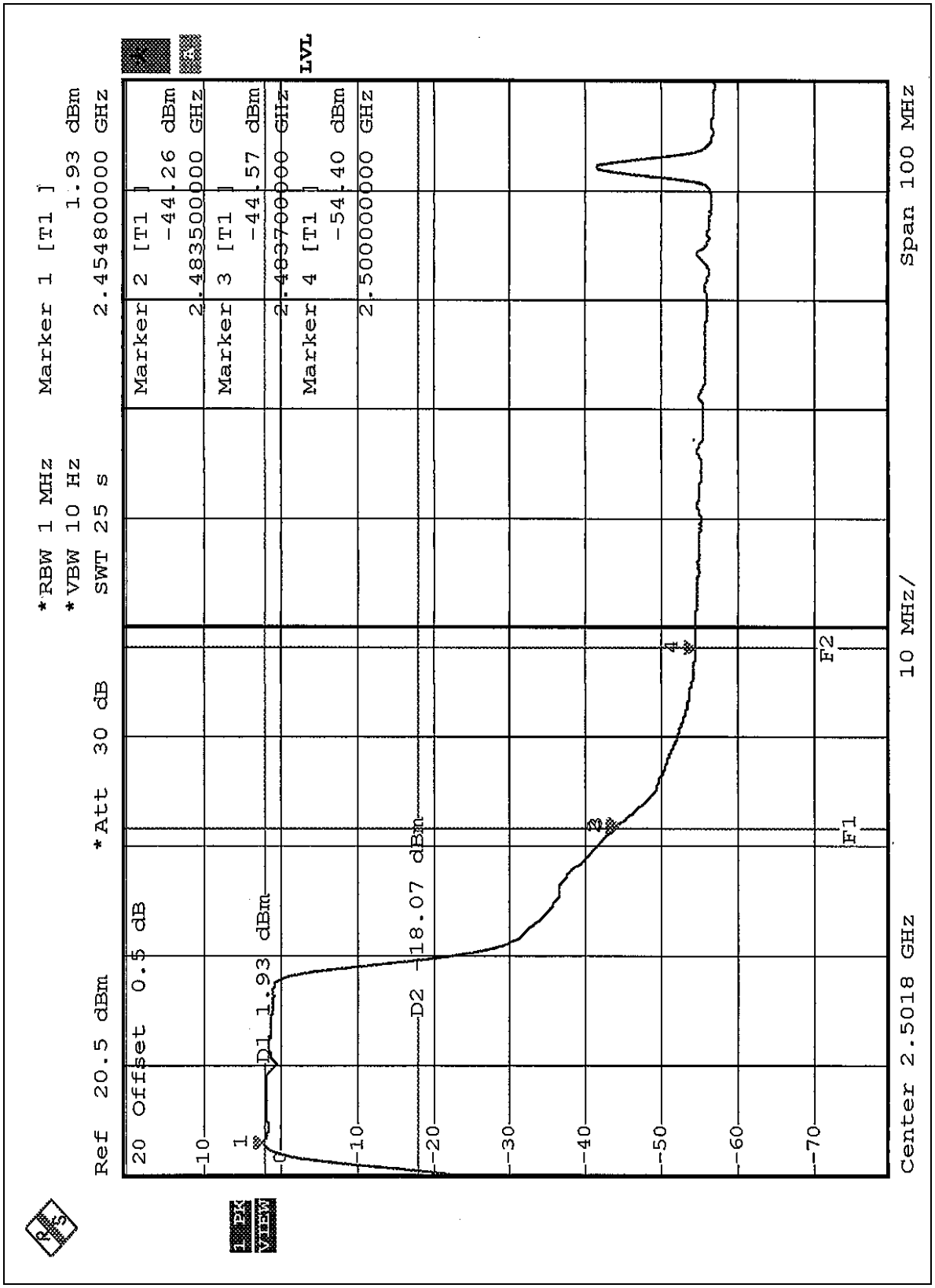

Ref 20.5 dBm
20 Offset 0.5 dB
*Att 30 dB
*RBW 100 kHz
*VBW 100 kHz
SWT 2.25 s
Marker 1 [T1]
-44.28 dBm
24.865000000 GHz
D1 7.19 dBm
D2 -12.81 dBm
LVL
Start 2.5 GHz
2.25 GHz/
Stop 25 GHz
1 PK
MAXH

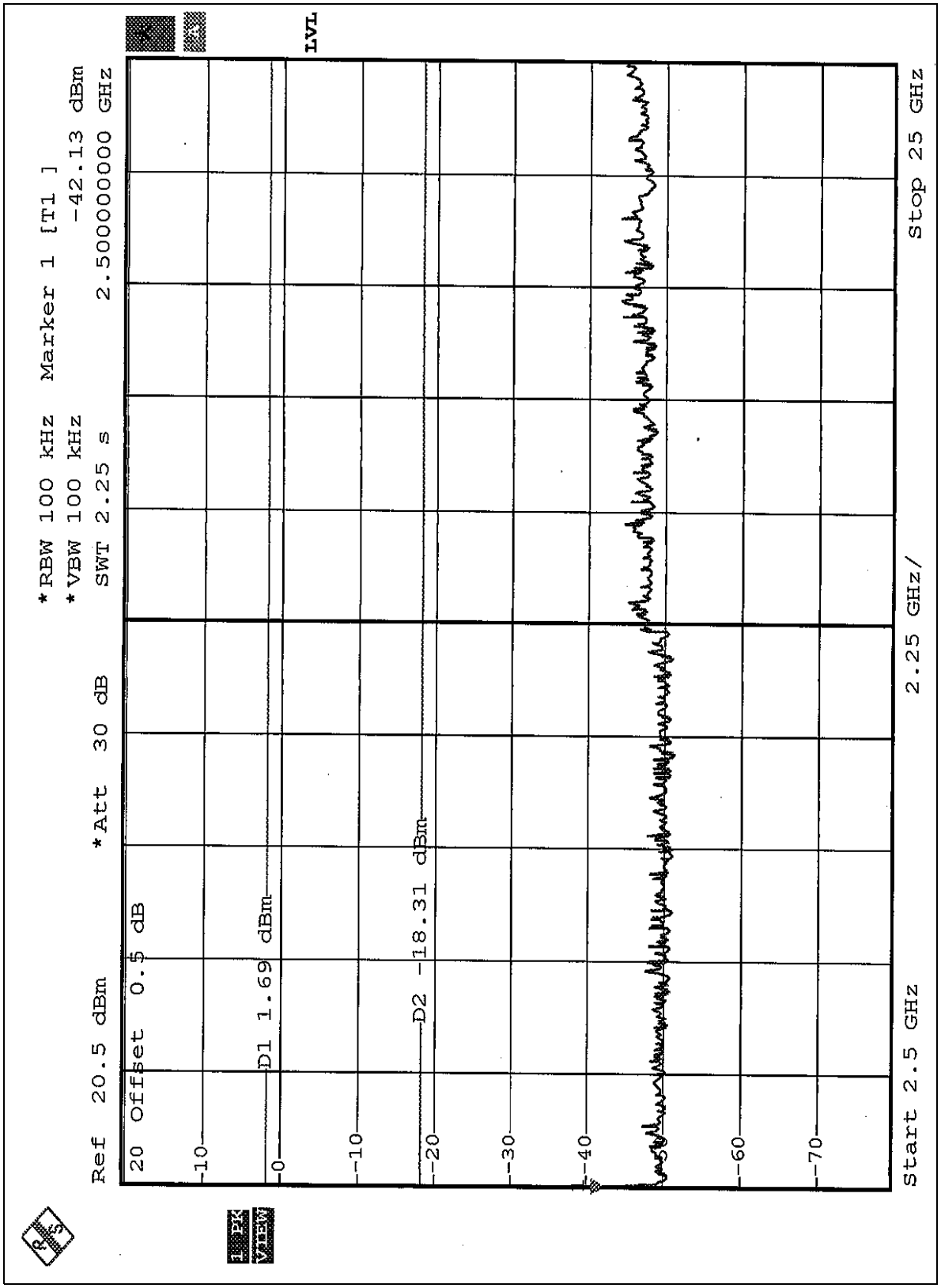

RBW 1 MHz
VBW 10 Hz
SWT 25 s
Marker 1 [T1]
7.12 dBm
2.459600000 GHz
Marker 2 [T1]
-47.92 dBm
2.483500000 GHz
Marker 3 [T1]
-45.14 dBm
2.496500000 GHz
Marker 4 [T1]
-54.07 dBm
2.500000000 GHz
LVL
Ref 20.5 dBm
20 Offset 0.5 dB
*Att 30 dB
D1 7.12 dBm
D2 -12.88 dBm
F1
F2
Center 2.502 GHz
10 MHz/
Span 100 MHz
1 PK
VIEW


*RBW 100 kHz
*VBW 100 kHz
SWT 2.25 s
Marker 1 [T1]
-40.49 dBm
2.50000000 GHz
Ref 20.5 dBm
20 Offset 0.5 dB
*Att 30 dB
D1 7.42 dBm
D2 -12.58 dBm
Start 2.5 GHz
2.25 GHz/
Stop 25 GHz
PK
VIEW


*RBW 1 MHz
*VBW 10 Hz
SWT 25 s
Marker 1 [T1]
1.80 dBm
2.415200000 GHz
Marker 2 [T1]
-34.19 dBm
2.400000000 GHz
Marker 3 [T1]
-45.64 dBm
2.390000000 GHz
Marker 4 [T1]
-45.96 dBm
2.389800000 GHz
Ref 20.5 dBm
20 Offset 0.5 dB
*Att 30 dB
D1 1.8 dBm
D2 -18.2 dBm
LVL
F1
F2
Center 2.372 GHz
10 MHz/
Span 100 MHz
1 PK
VIEW


*RBW 100 kHz
*VBW 100 kHz
SWT 2.25 s
Marker 1 [T1]
-43.93 dBm
21.895000000 GHz
Ref 20.5 dBm
20 Offset 0.5 dB
*Att 30 dB
D1 1.47 dBm
D2 -18.53 dBm
Start 2.5 GHz
2.25 GHz/
Stop 25 GHz
LVL
1 PK
VIEW


*RBW 1 MHz
*VBW 10 Hz
SWT 25 s
*Att 30 dB
Ref 20.5 dBm
20 Offset 0.5 dB
Marker 1 [T1]
1.93 dBm
2.45480000 GHz
Marker 2 [T1]
-44.26 dBm
2.48350000 GHz
Marker 3 [T1]
-44.57 dBm
2.48370000 GHz
Marker 4 [T1]
-54.40 dBm
2.50000000 GHz
LVL
D1 1.93 dBm
D2 -18.07 dBm
F1
F2
Center 2.5018 GHz
10 MHz/
Span 100 MHz
1 PK VIEW


*RBW 100 kHz
*VBW 100 kHz
SWT 2.25 s
Marker 1 [T1]
-42.13 dBm
2.500000000 GHz
Ref 20.5 dBm
20 Offset 0.5 dB
*Att 30 dB
D1 1.69 dBm
D2 -18.31 dBm
Start 2.5 GHz
2.25 GHz/
Stop 25 GHz
1VL
1 PK
VIEW

4.6.7 TEST RESULTS (B)

The spectrum plots are attached on the following 8 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 (CCK):

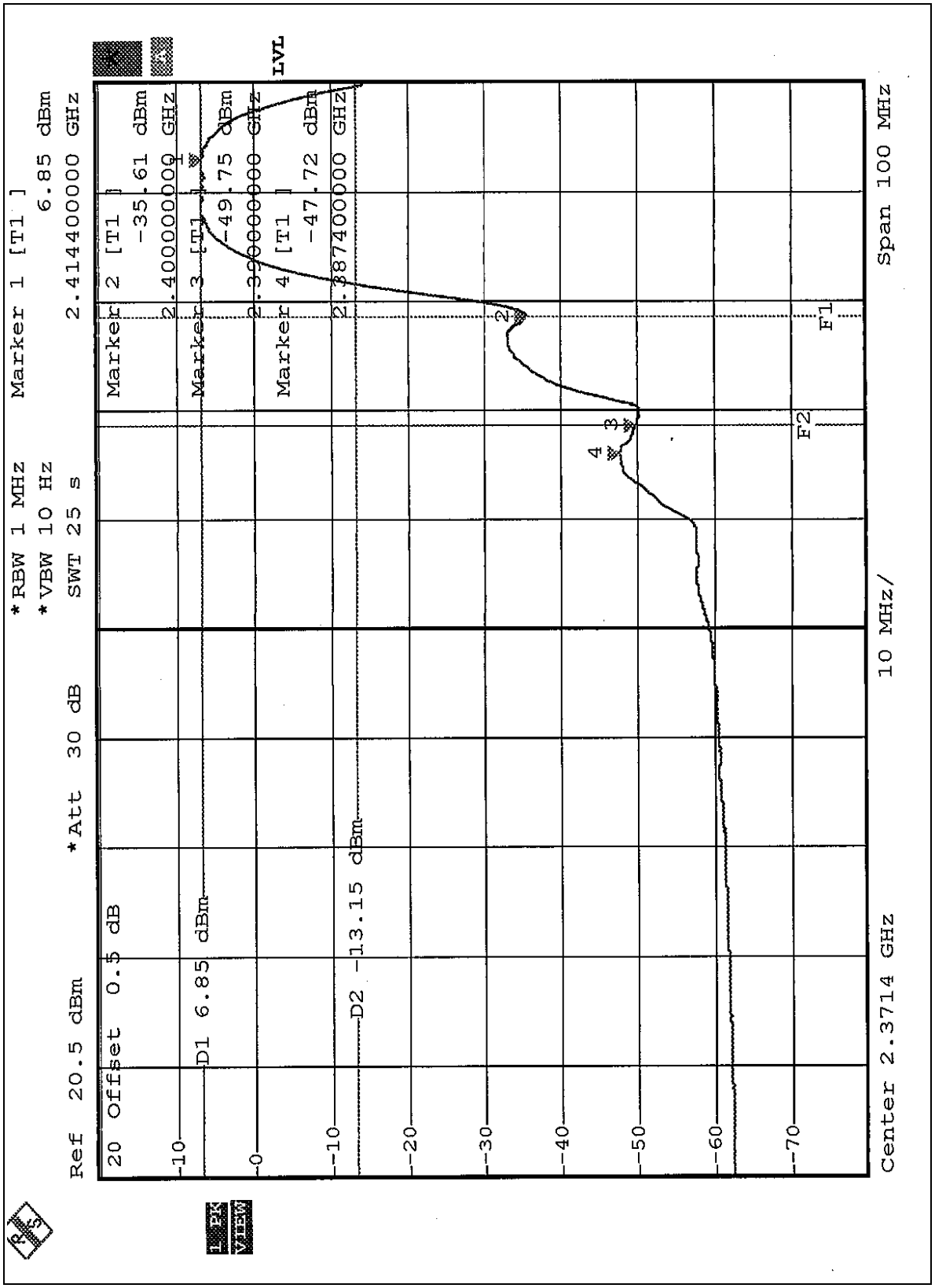
The band edge emission plot on the following 1~2 pages show 54.57dB delta between carrier maximum power and local maximum emission in restrict band (2.3874GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.8 is 105.22dBuV/m, so the maximum field strength in restrict band is 105.22-54.57=50.65dBuV/m which is under 54dBuV/m limit.

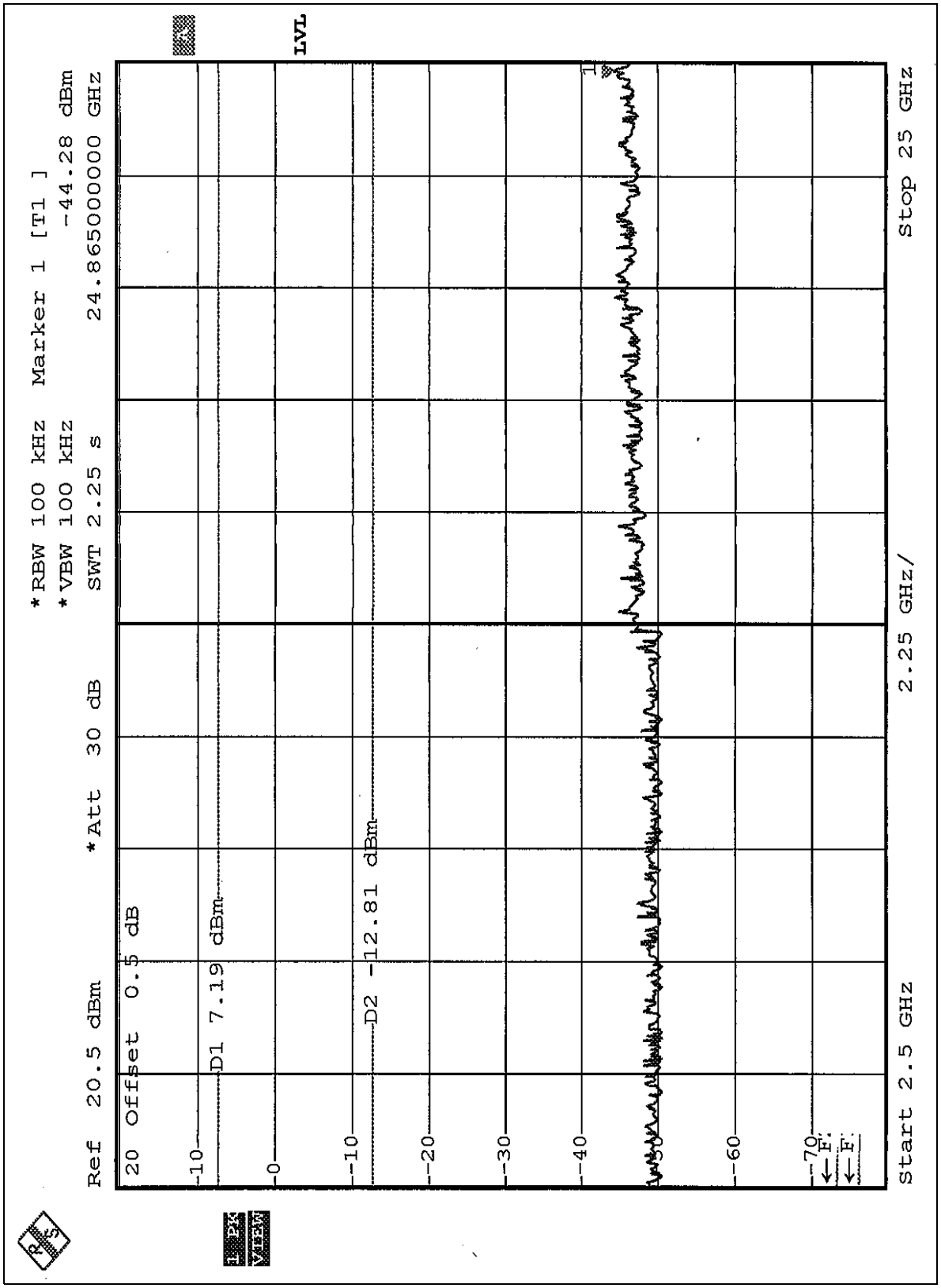
The band edge emission plot on the following 3~4 pages show 52.26dB delta between carrier maximum power and local maximum emission in restrict band (2.4865GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.8 is 105.06dBuV/m, so the maximum field strength in restrict band is 105.06-52.26=52.80dBuV/m which is under 54dBuV/m limit.

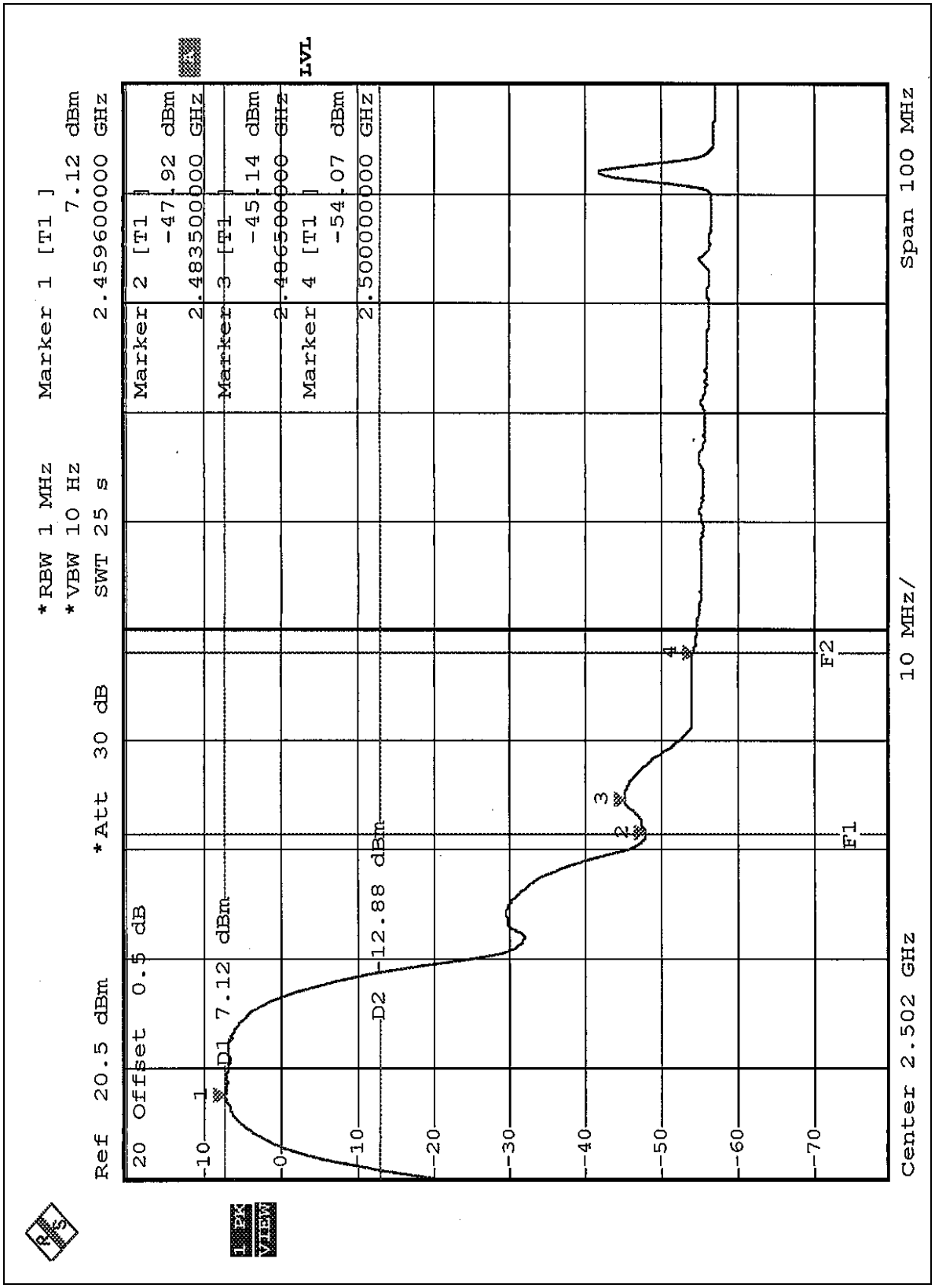
NOTE (OFDM):

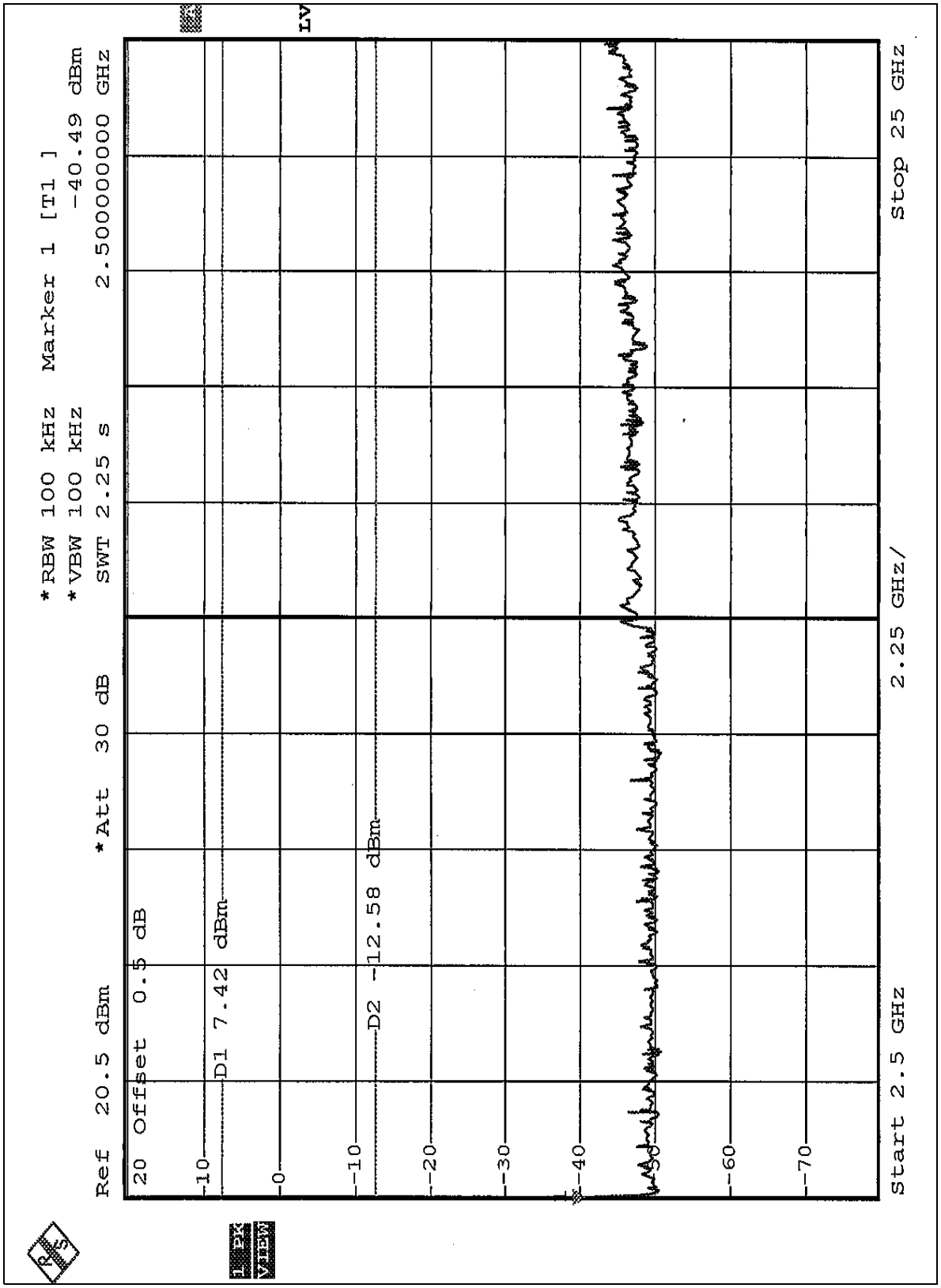
The band edge emission plot on the following 5~6 pages show 47.44dB delta between carrier maximum power and local maximum emission in restrict band (2.3898GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.8 is 98.50dBuV/m, so the maximum field strength in restrict band is 98.50-47.44=51.06dBuV/m which is under 54dBuV/m limit.

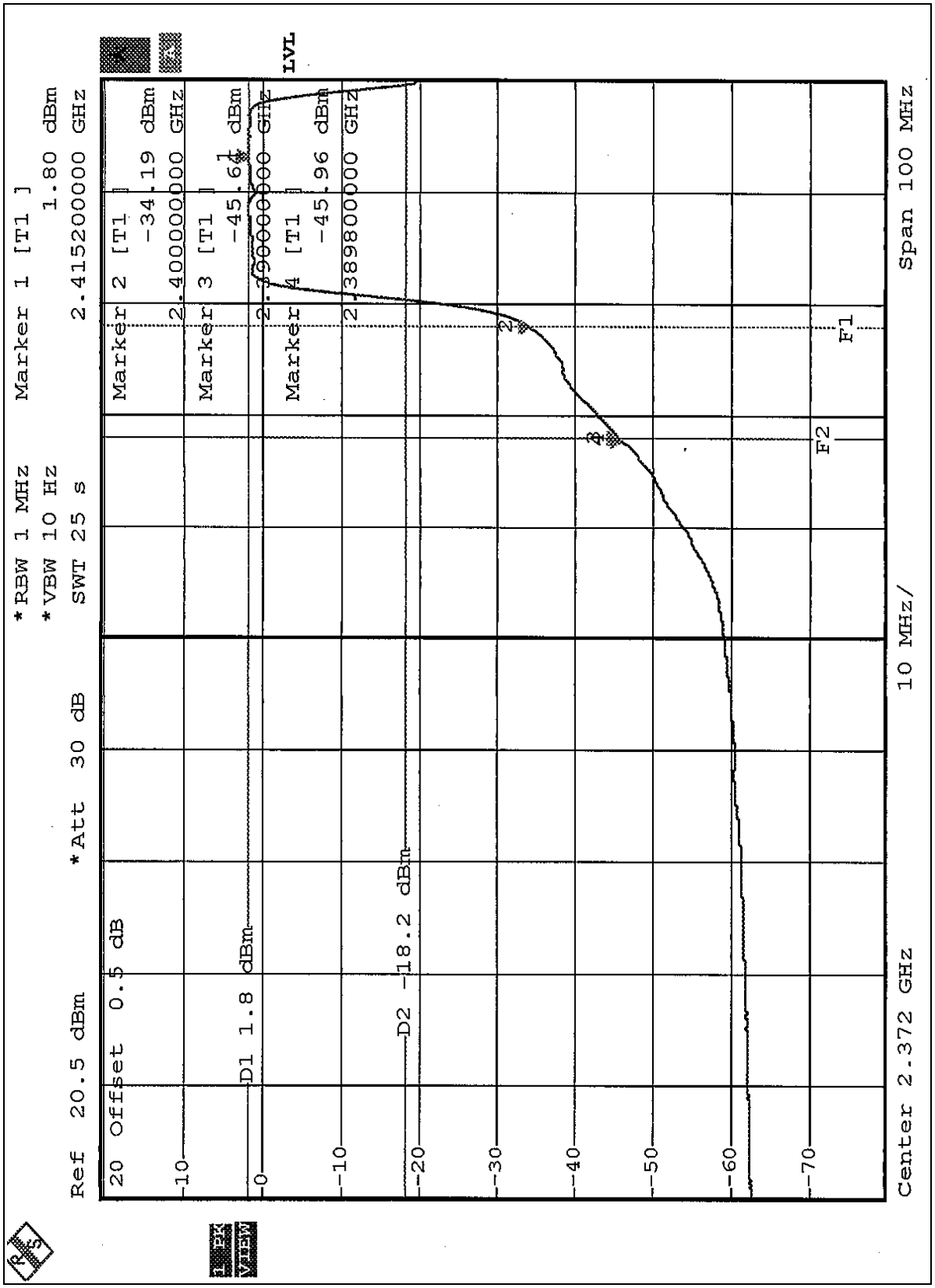
The band edge emission plot on the following 7~8 pages show 46.19dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.8 is 96.69dBuV/m, so the maximum field strength in restrict band is 96.69-46.19=50.50dBuV/m which is under 54dBuV/m limit.

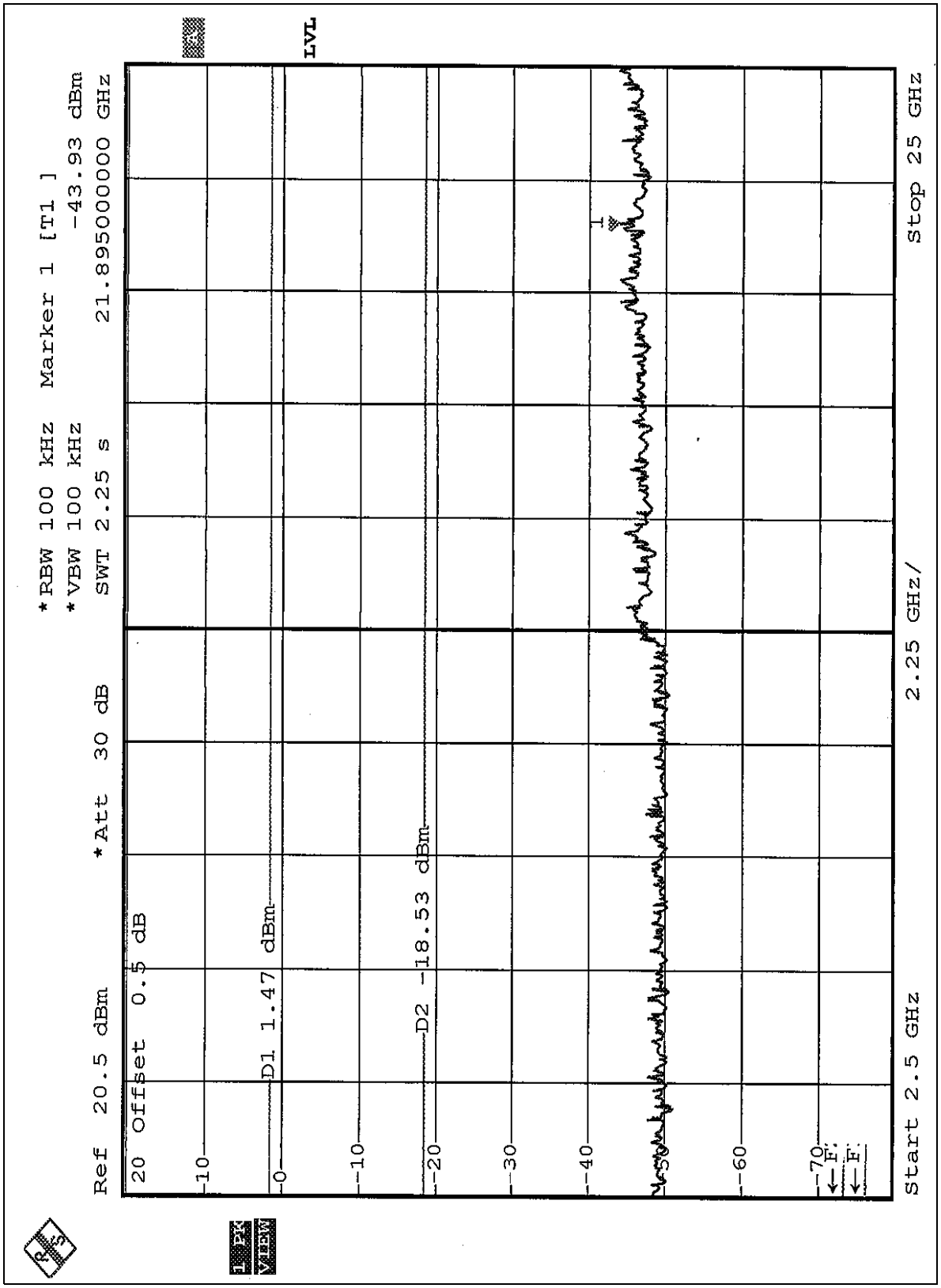

*RBW 1 MHz
*VBW 10 Hz
SWT 25 s
Marker 1 [T1]
6.85 dBm
2.414400000 GHz
*Att 30 dB
Ref 20.5 dBm
20 Offset 0.5 dB
D1 6.85 dBm
D2 -13.15 dBm
Marker 2 [T1]
-35.61 dBm
2.400000000 GHz
Marker 3 [T1]
-49.75 dBm
2.390000000 GHz
Marker 4 [T1]
-47.72 dBm
2.387400000 GHz
LVL
Center 2.3714 GHz
10 MHz/
Span 100 MHz
F1
F2
1 PK VIEW

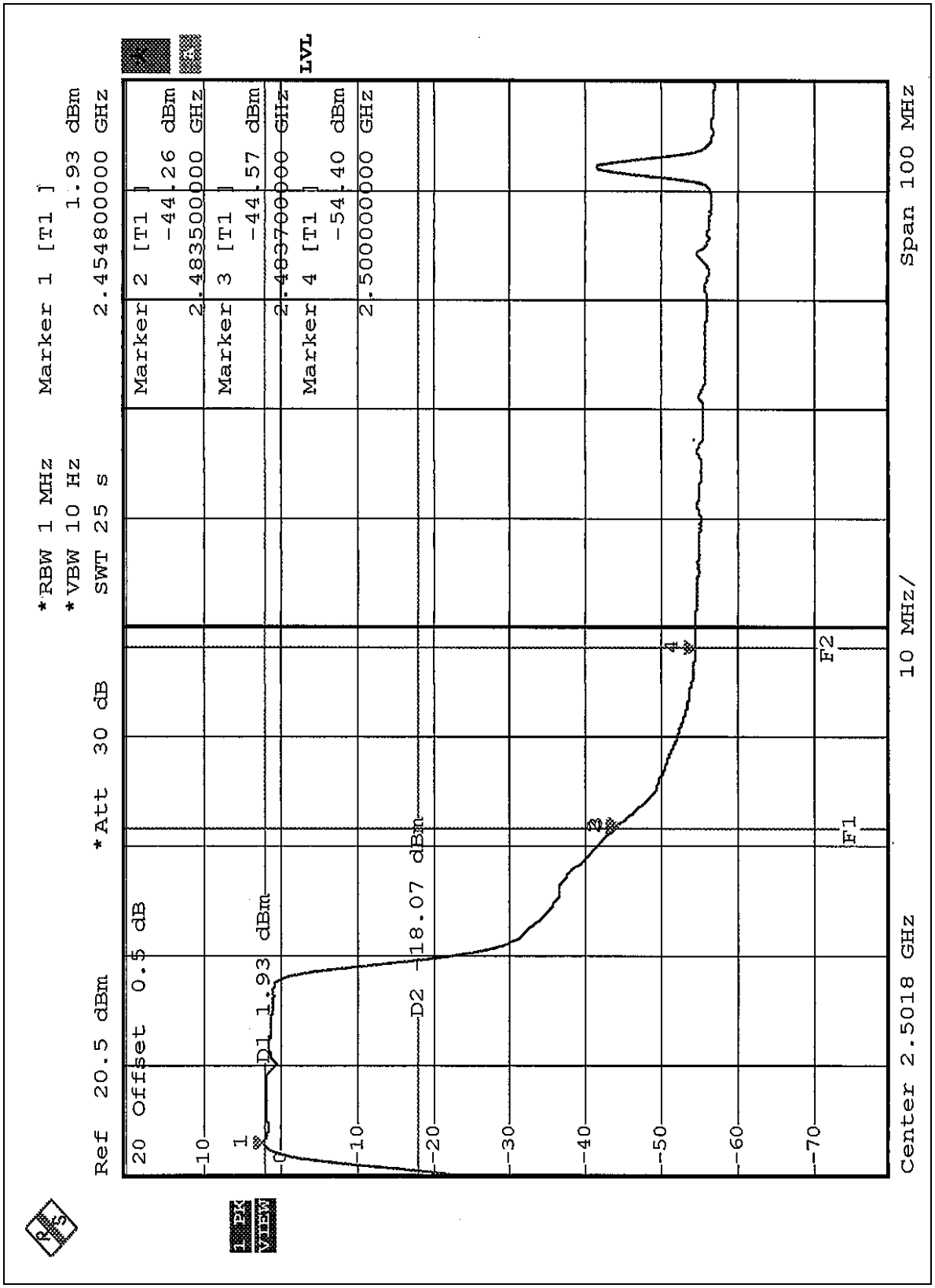

Ref 20.5 dBm
20 Offset 0.5 dB
*Att 30 dB
*RBW 100 kHz
*VBW 100 kHz
SWT 2.25 s
Marker 1 [T1]
-44.28 dBm
24.865000000 GHz
D1 7.19 dBm
D2 -12.81 dBm
LVL
Start 2.5 GHz
2.25 GHz/
Stop 25 GHz

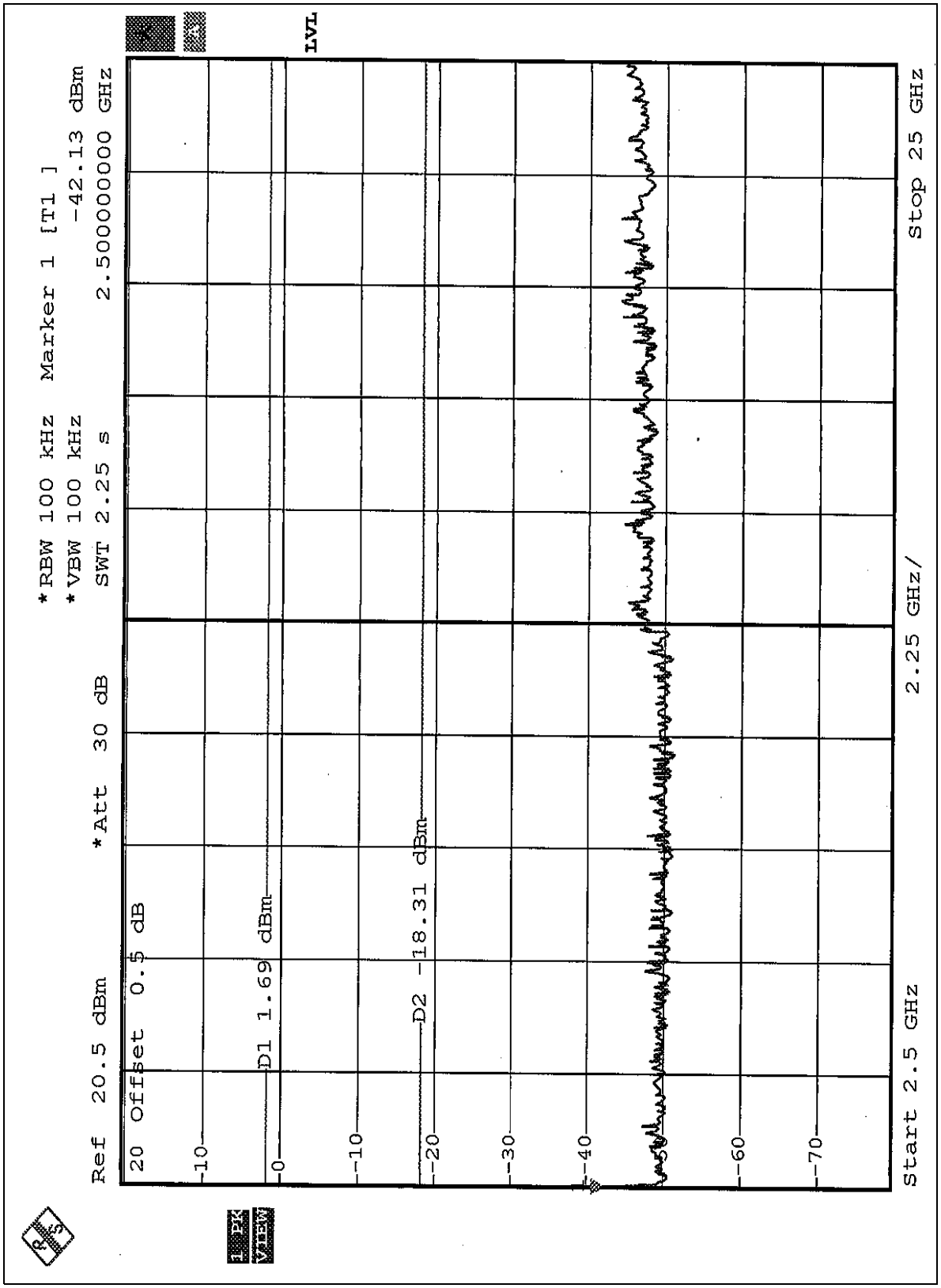

Ref 20.5 dBm
20 Offset 0.5 dB
*Att 30 dB
*RBW 1 MHz
*VBW 10 Hz
SWT 25 s
Marker 1 [T1]
7.12 dBm
2.459600000 GHz
Marker 2 [T1]
-47.92 dBm
2.483500000 GHz
Marker 3 [T1]
-45.14 dBm
2.496500000 GHz
Marker 4 [T1]
-54.07 dBm
2.500000000 GHz
LVL
D1 7.12 dBm
D2 -12.88 dBm
F1
F2
Center 2.502 GHz
10 MHz/
Span 100 MHz
1 PK
VIEW


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]
-40.49 dBm
2.50000000 GHz
D1 7.42 dBm
D2 -12.58 dBm
Start 2.5 GHz
2.25 GHz/
Stop 25 GHz


*RBW 1 MHz
*VBW 10 Hz
SWT 25 s
Marker 1 [T1]
1.80 dBm
2.415200000 GHz
Marker 2 [T1]
-34.19 dBm
2.400000000 GHz
Marker 3 [T1]
-45.64 dBm
2.390000000 GHz
Marker 4 [T1]
-45.96 dBm
2.389800000 GHz
Ref 20.5 dBm
20 Offset 0.5 dB
*Att 30 dB
D1 1.8 dBm
D2 -18.2 dBm
LVL
F1
F2
Center 2.372 GHz
10 MHz/
Span 100 MHz
1 PK
VIEW


*RBW 100 kHz
*VBW 100 kHz
SWT 2.25 s
Marker 1 [T1]
-43.93 dBm
21.895000000 GHz
Ref 20.5 dBm
20 Offset 0.5 dB
*Att 30 dB
D1 1.47 dBm
D2 -18.53 dBm
Start 2.5 GHz
2.25 GHz/
Stop 25 GHz
LVL
1 PK
VIEW


*RBW 1 MHz
*VBW 10 Hz
SWT 25 s
Marker 1 [T1]
1.93 dBm
2.45480000 GHz
Marker 2 [T1]
-44.26 dBm
2.48350000 GHz
Marker 3 [T1]
-44.57 dBm
2.48370000 GHz
Marker 4 [T1]
-54.40 dBm
2.50000000 GHz
LVL
Ref 20.5 dBm
20 Offset 0.5 dB
*Att 30 dB
D1 1.93 dBm
D2 -18.07 dBm
F1
F2
Center 2.5018 GHz
10 MHz/
Span 100 MHz
1 PK VIEW


*RBW 100 kHz
*VBW 100 kHz
SWT 2.25 s
Marker 1 [T1]
-42.13 dBm
2.500000000 GHz
TVL
Ref 20.5 dBm
20 Offset 0.5 dB
*Att 30 dB
D1 1.69 dBm
D2 -18.31 dBm
Start 2.5 GHz
2.25 GHz/
Stop 25 GHz
1 PK
VIEW

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.

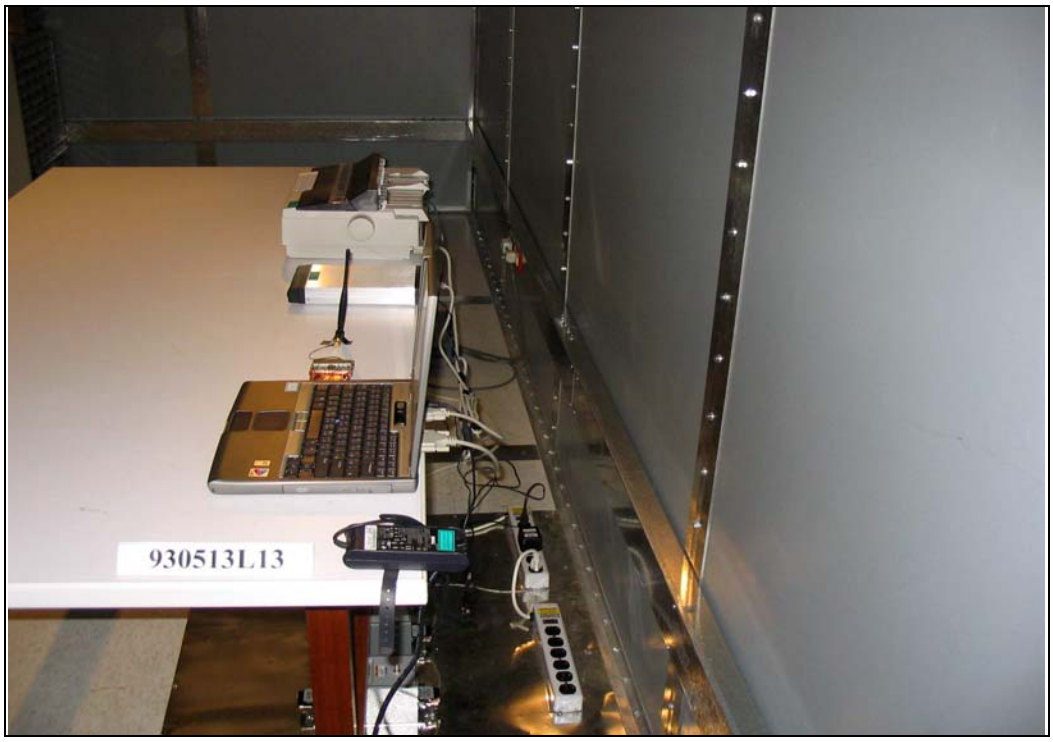
4.7.2 ANTENNA CONNECTED CONSTRUCTION

The antenna used in this product is Dipole antenna with UFL connector. And the maximum Gain of this antenna is 4.5dBi.

5 PHOTOGRAPHS OF THE TEST CONFIGURATION

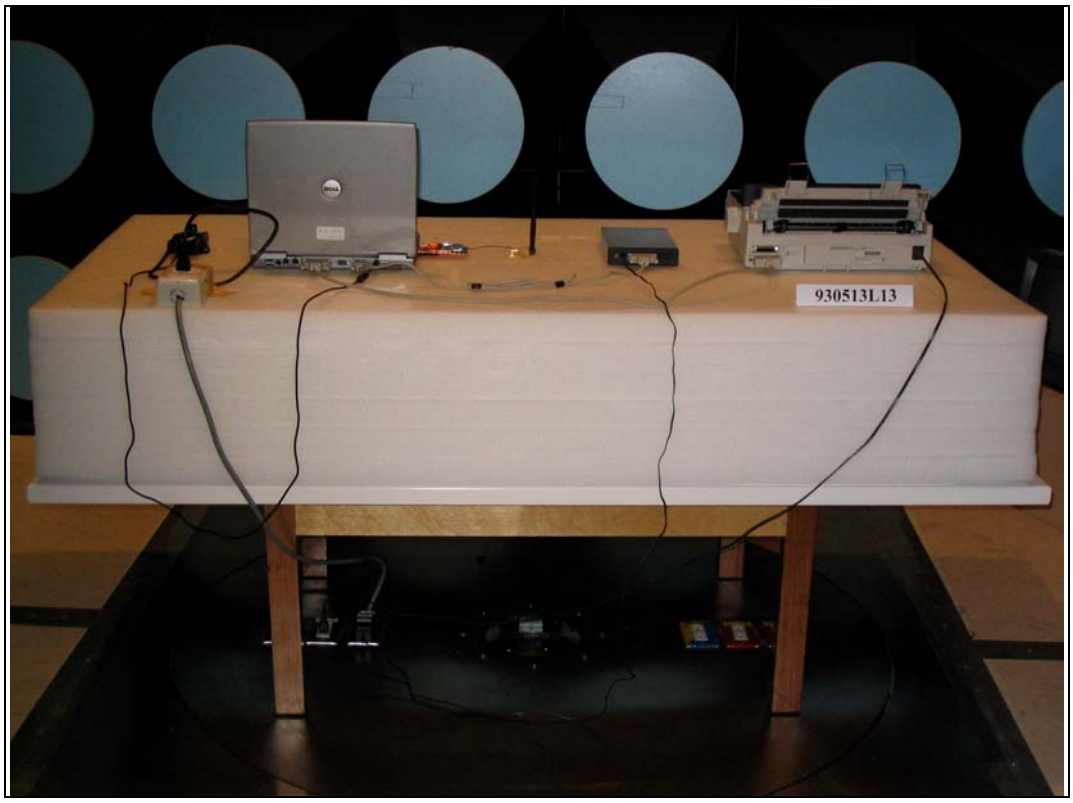
CONDUCTED EMISSION TEST
(FOR ANTENA 1)

(FOR ANTENA 2)

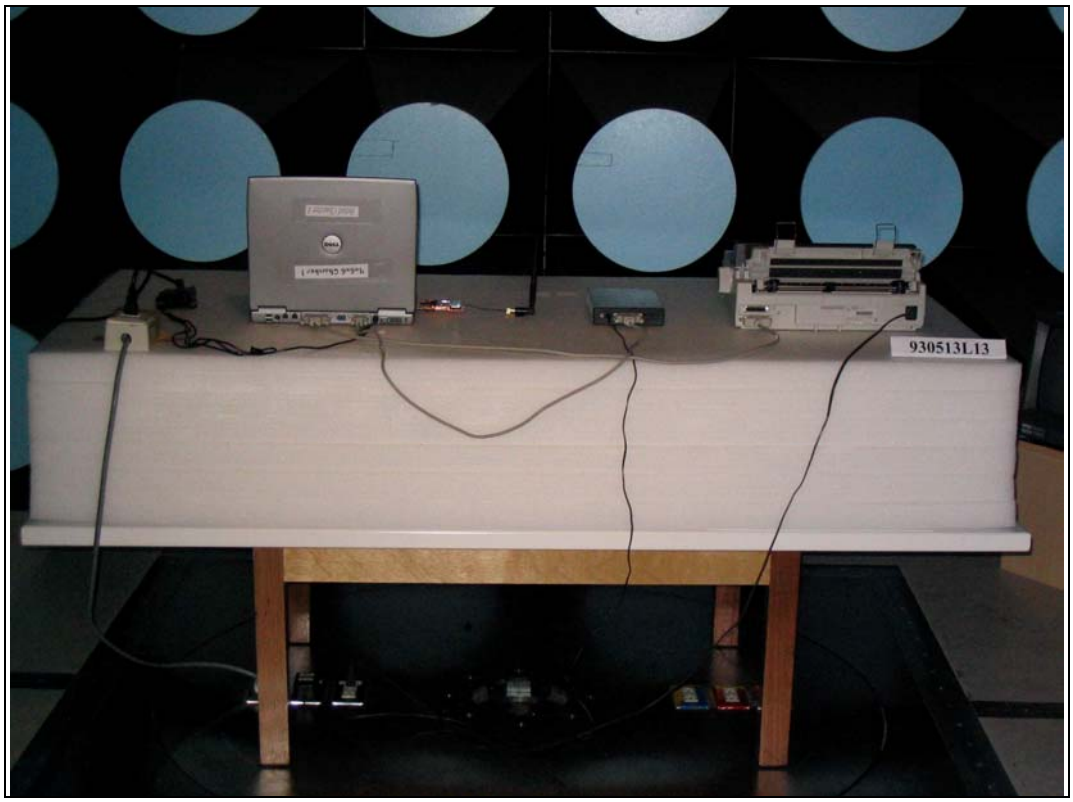

930513L13

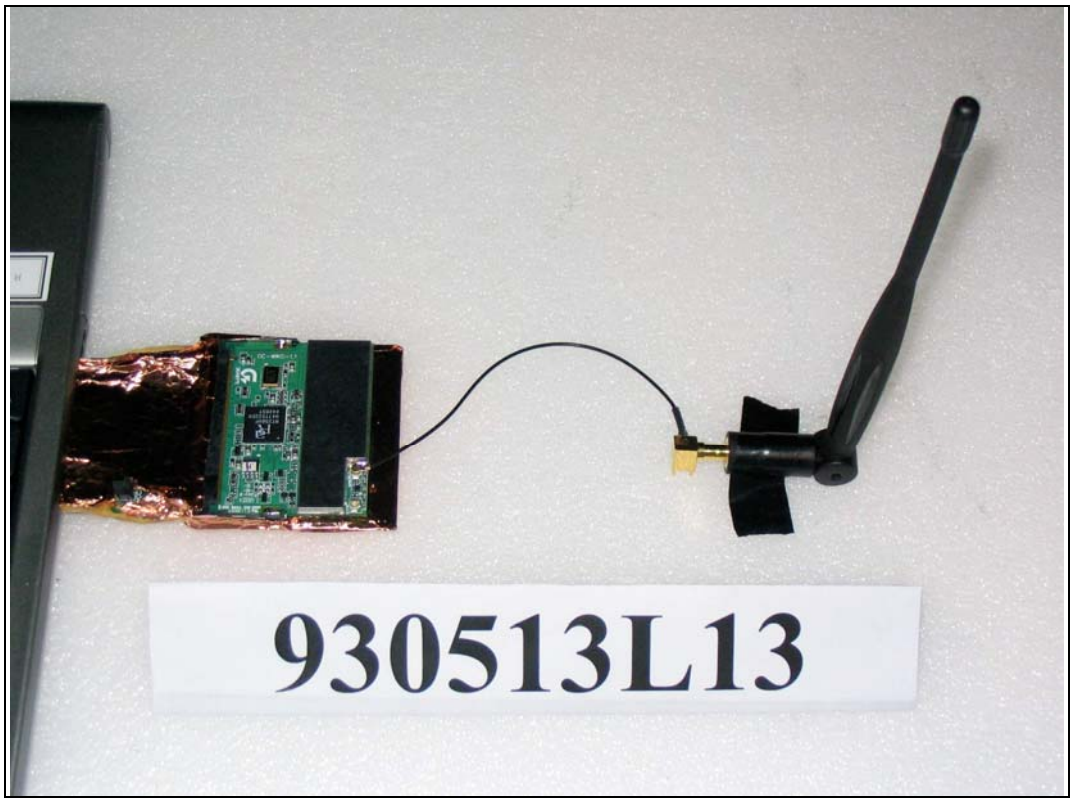

930513L13

RADIATED EMISSION TEST
(FOR ANTENNA 1)



(FOR ANTENNA 1)


930513L13


930513L13

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

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