



FCC TEST REPORT

REPORT NO.: RF930324L05

MODEL NO.: Gigaset SE505(S30853-S1006-R317-2)

RECEIVED: March 24, 2004

TESTED: March 31 ~ April 6, 2004

APPLICANT: ASKEY COMPUTER CORP.

ADDRESS: 10F, NO. 119, CHIENKANG RD., CHUNG-HO, TAIPEI,
TAIWAN, R.O.C.

ISSUED BY: Advance Data Technology Corporation

LAB LOCATION: 47 14th Lin, Chiapau Tsun, Linko, Taipei,
Taiwan, R.O.C.

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Table of Contents

1	CERTIFICATION	4
2	SUMMARY OF TEST RESULTS.....	5
3	GENERAL INFORMATION	6
3.1	GENERAL DESCRIPTION OF EUT.....	6
3.2	DESCRIPTION OF TEST MODES.....	7
3.3	GENERAL DESCRIPTION OF APPLIED STANDARDS	7
3.4	DESCRIPTION OF SUPPORT UNITS.....	8
3.5	CONFIGURATION OF SYSTEM UNDER TEST.....	9
4	TEST TYPES AND RESULTS.....	10
4.1	CONDUCTED EMISSION MEASUREMENT	10
4.1.1	LIMITS OF CONDUCTED EMISSION MEASUREMENT	10
4.1.2	TEST INSTRUMENTS	10
4.1.3	TEST PROCEDURES.....	11
4.1.4	TEST SETUP.....	12
4.1.5	EUT OPERATING CONDITIONS.....	12
4.1.6	TEST RESULTS	13
4.2	RADIATED EMISSION MEASUREMENT	19
4.2.1	LIMITS OF RADIATED EMISSION MEASUREMENT	19
4.2.2	TEST INSTRUMENTS.....	20
4.2.3	TEST PROCEDURES	21
4.2.4	TEST SETUP.....	22
4.2.5	EUT OPERATING CONDITIONS	22
4.2.6	TEST RESULTS	23
4.2.7	TEST RESULTS (FOR CCK).....	25
4.2.8	TEST RESULTS (FOR OFDM).....	31
4.3	6dB BANDWIDTH MEASUREMENT	37
4.3.1	LIMITS OF 6dB BANDWIDTH MEASUREMENT	37
4.3.2	TEST INSTRUMENTS.....	37
4.3.3	TEST PROCEDURE.....	38
4.3.4	TEST SETUP.....	38
4.3.5	EUT OPERATING CONDITIONS	38
4.3.6	TEST RESULTS (FOR CCK).....	39
4.3.7	TEST RESULTS (FOR OFDM).....	43
4.4	MAXIMUM PEAK OUTPUT POWER	47
4.4.1	LIMITS OF MAXIMUM PEAK OUTPUT POWER MEASUREMENT	47
4.4.2	TEST INSTRUMENTS.....	47
4.4.3	TEST PROCEDURES	48
4.4.4	DEVIATION FROM TEST STANDARD	48
4.4.5	TEST SETUP.....	48



4.4.6	EUT OPERATING CONDITIONS	48
4.4.7	TEST RESULTS (FOR CCK).....	49
4.4.8	TEST RESULTS (FOR OFDM).....	49
4.5	POWER SPECTRAL DENSITY MEASUREMENT	50
4.5.1	LIMITS OF POWER SPECTRAL DENSITY MEASUREMENT	50
4.5.2	TEST INSTRUMENTS.....	50
4.5.3	TEST PROCEDURE.....	51
4.5.4	TEST SETUP.....	51
4.5.5	EUT OPERATING CONDITIONS	51
4.5.6	TEST RESULTS (FOR CCK).....	52
4.5.7	TEST RESULTS (FOR OFDM).....	56
4.6	BAND EDGES MEASUREMENT	60
4.6.1	LIMITS OF BAND EDGES MEASUREMENT.....	60
4.6.2	TEST INSTRUMENTS.....	60
4.6.3	TEST PROCEDURE.....	60
4.6.4	EUT OPERATING CONDITION	60
4.6.5	TEST RESULTS (FOR CCK).....	61
4.6.6	TEST RESULTS (FOR OFDM).....	66
4.7	ANTENNA REQUIREMENT	71
4.7.1	STANDARD APPLICABLE	71
4.7.2	ANTENNA CONNECTED CONSTRUCTION.....	71
5	PHOTOGRAPHS OF THE TEST CONFIGURATION.....	72
6	INFORMATION ON THE TESTING LABORATORIES	74



1 CERTIFICATION

PRODUCT : Wireless Router
MODEL NO. : Gigaset SE505(S30853-S1006-R317-2)
BRAND NAME: SIEMENS
APPLICANT: ASKEY COMPUTER CORP.
TEST ITEM : ENGINEERING SAMPLE
STANDARDS : FCC Part 15, Subpart C (Section 15.247)
ANSI C63.4-2001

We, **Advance Data Technology Corporation**, hereby certify that one sample of the designation has been tested in our facility from March 31, 2004 to April 6, 2004. The test record, data evaluation and Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions herein specified.

PREPARED BY: Stacy Hsueh., **DATE:** April 13, 2004
Stacy Hsueh

APPROVED BY: Ellis Wu, **DATE:** April 13, 2004
Ellis Wu / Manager for

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 -3.08dB at 0.450MHz
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 -0.76dB at 3284.00MHz
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 Router
MODEL NO.	Gigaset SE505(S30853-S1006-R317-2)
BRAND NAME	SIEMENS
POWER SUPPLY	12Vdc from AC Adater
MODULATION TYPE	BPSK, QPSK, CCK, 16QAM, 64QAM
RADIO TECHNOLOGY	DSSS, OFDM
TRANSFER RATE	1/2/5.5/6/9/11/12/18/24/36/48/54Mbps
FREQUENCY RANGE	2412MHz ~ 2462MHz
NUMBER OF CHANNEL	11
OUTPUT POWER	11b:14.35dBm 11g:17.56dBm
ANTENNA TYPE	Dipole antenna with 2dBi antenna gain
DATA CABLE	NA
I/O PORTS	RJ45
ASSOCIATED DEVICES	NA

NOTE:

1. The EUT were powered by the following adapter:

BRAND :	OEM
MODEL :	AD-121ANDT
INPUT :	120Vac, 60Hz, 25W
OUTPUT :	12Vdc, 1A

2. The EUT operates in the 2.4GHz frequency spectrum with throughput of up to 54Mbps.
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. Below 1GHz, the channel 1, 6, and 11 were pre-tested in chamber. The channel 11, worst case one, was chosen for final test.
2. Above 1GHz, the channel 1, 6, and 11 were tested individually.
3. Transfer rate, 11Mbps with CCK technique and 6Mbps with OFDM technique, the worst cases, were chosen for final test.

3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a Wireless Router. 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.

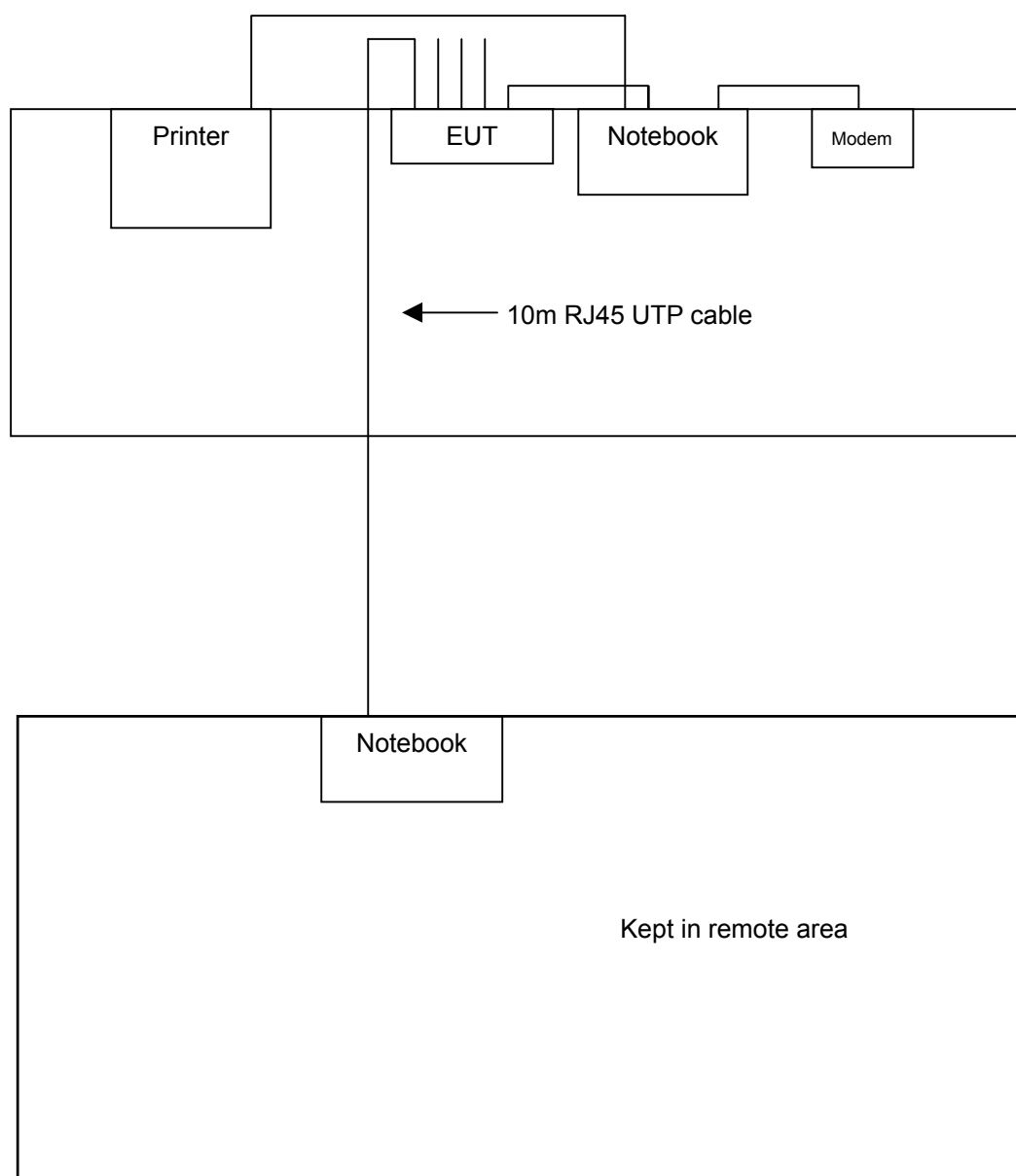
NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK	DELL	PP01L	TW-0791UH-12800-123-5423	FCC DoC Approved
2	NOTEBOOK	DELL	PP01L	TW-0791UH-12800-11A-1063	FCC DoC Approved
3	MODEM	ACEEX	1414	980020516	IFAXDM1414
4	PRINTER	EPSON	LQ-300+	DCGY038839	FCC DoC Approved

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	NA
2	NA
3	1.2 m braid shielded wire, terminated with DB25 and DB9 connector via metallic frame, w/o core.
4	1.2m braid shielded wire, terminated with DB25 and Centronics connector via metallic frame, w/o core

NOTE:

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

3.5 CONFIGURATION OF SYSTEM UNDER TEST



4 TEST TYPES AND RESULTS

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dB μ V)	
	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	MODEL NO.	MANUFACTURER	SERIAL NO.	CALIBRATED UNTIL
Test Receiver	ESCS30	ROHDE & SCHWARZ	100291	Dec. 12, 2004
RF signal cable	5D-FB	Woken	Cable-HYC01-01	Mar. 02, 2005
LISN	ESH3-Z5	ROHDE & SCHWARZ	847265/023	Oct. 22, 2004
LISN	ESH3-Z5	ROHDE & SCHWARZ	100220	Dec. 10, 2004
Software	ADT_Cond_V3	ADT	NA	X

- 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.



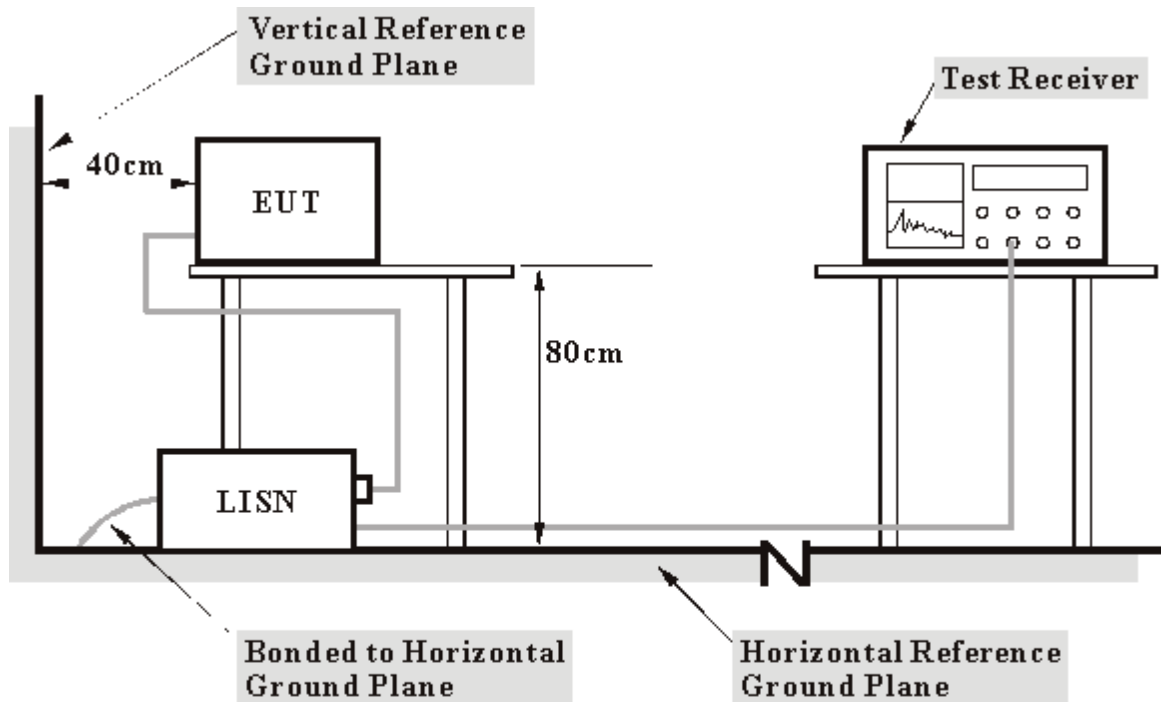
4.1.3 TEST PROCEDURES

- 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 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. 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 prints them on paper.
- f. Repeat c ~ e.

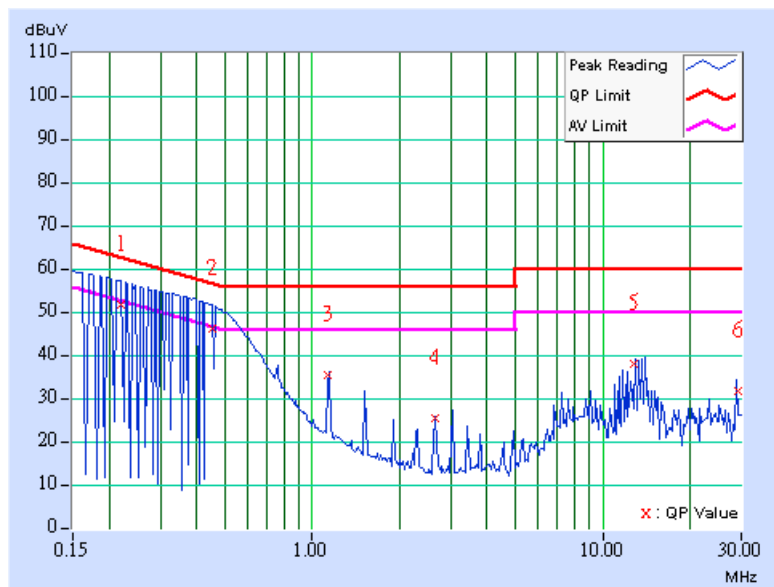
4.1.7 TEST RESULTS

EUT	Wireless Router	MODEL	Gigaset SE505 (S30853-S1006-R317-2)
MODE	Channel 1	6dB BANDWIDTH	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	PHASE	Line (L)
ENVIRONMENTAL CONDITIONS	23 deg. C, 63%RH, 991 hPa	TESTED BY: Long Chen	

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	0.219	0.12	50.28	-	50.40	-	62.87	52.87	-12.47	-
2	0.450	0.13	44.82	-	44.95	-	56.87	46.87	-11.92	-
3	1.137	0.15	34.00	-	34.15	-	56.00	46.00	-21.85	-
4	2.651	0.18	24.02	-	24.20	-	56.00	46.00	-31.80	-
5	12.880	0.58	36.72	-	37.30	-	60.00	50.00	-22.70	-
6	29.064	1.40	30.59	-	31.99	-	60.00	50.00	-28.01	-

NOTE:

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.

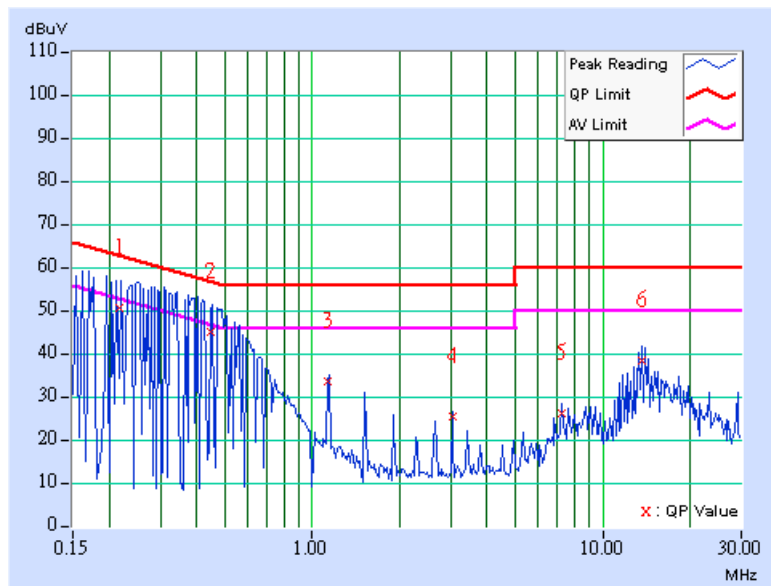


EUT	Wireless Router	MODEL	Gigaset SE505 (S30853-S1006-R317-2)
MODE	Channel 1	6dB BANDWIDTH	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	PHASE	Neutral (N)
ENVIRONMENTAL CONDITIONS	23 deg. C, 63%RH, 991 hPa	TESTED BY: Long Chen	

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	0.216	0.11	50.34	-	50.45	-	62.97	52.97	-12.52	-
2	0.450	0.12	44.80	17.71	44.92	17.83	48.00	-	-3.08	-
3	1.137	0.15	33.26	34.09	33.41	34.24	48.00	-	-14.59	-
4	3.029	0.18	25.06	25.02	25.24	25.20	48.00	-	-22.76	-
5	7.194	0.28	25.73	25.15	26.01	25.43	48.00	-	-21.99	-
6	13.633	0.54	38.13	36.66	38.67	37.20	48.00	-	-9.33	-

NOTE:

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.

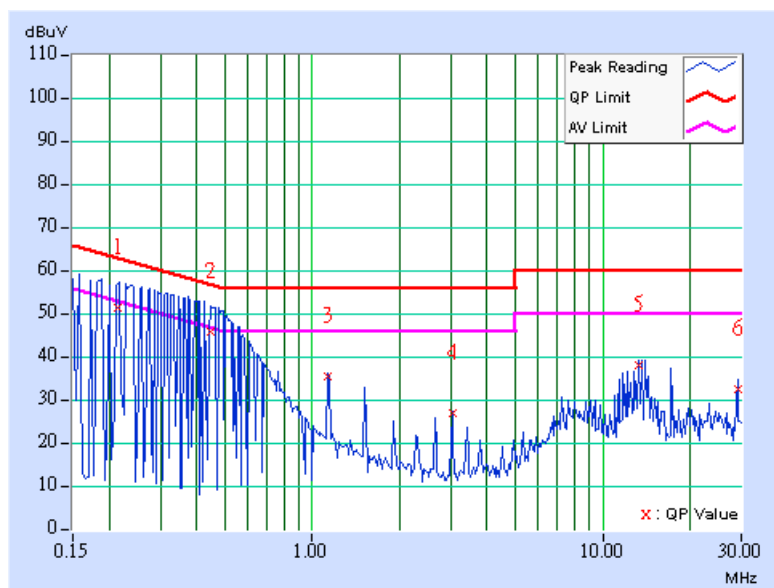


EUT	Wireless Router	MODEL	Gigaset SE505 (S30853-S1006-R317-2)
MODE	Channel 6	6dB BANDWIDTH	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	PHASE	Line (L)
ENVIRONMENTAL CONDITIONS	23 deg. C, 63%RH, 991 hPa	TESTED BY: Long Chen	

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	0.214	0.12	50.22	-	50.34	-	63.06	53.06	-12.72	-
2	0.450	0.13	44.66	-	44.79	-	56.88	46.88	-12.09	-
3	1.136	0.15	34.33	-	34.48	-	56.00	46.00	-21.52	-
4	3.029	0.18	25.75	-	25.93	-	56.00	46.00	-30.07	-
5	13.252	0.61	36.93	-	37.54	-	60.00	50.00	-22.46	-
6	29.064	1.40	31.07	-	32.47	-	60.00	50.00	-27.53	-

NOTE:

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.

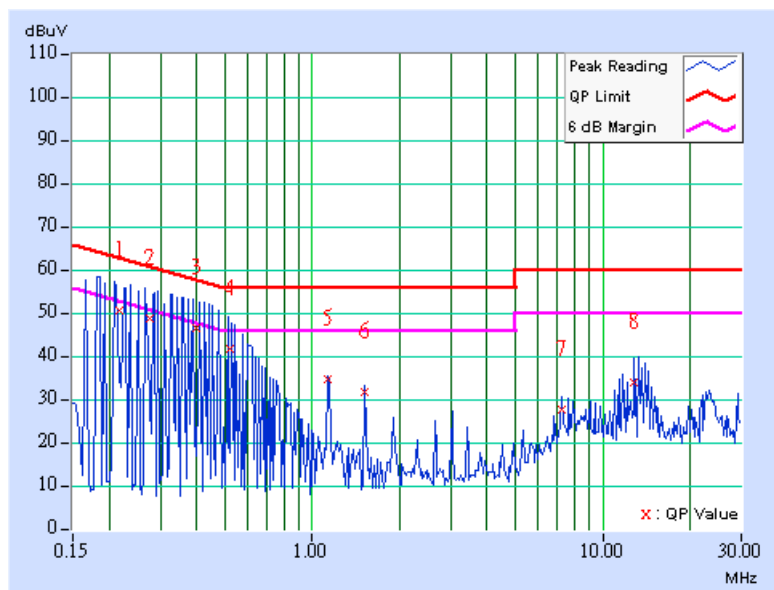


EUT	Wireless Router	MODEL	Gigaset SE505 (S30853-S1006-R317-2)
MODE	Channel 6	6dB BANDWIDTH	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	PHASE	Neutral (N)
ENVIRONMENTAL CONDITIONS	23 deg. C, 63%RH, 991 hPa	TESTED BY: Long Chen	

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	0.216	0.11	50.13	-	50.24	-	62.98	52.98	-12.74	-
2	0.275	0.11	48.38	-	48.49	-	60.97	50.97	-12.48	-
3	0.399	0.12	46.04	-	46.16	-	57.88	47.88	-11.73	-
4	0.520	0.12	41.42	-	41.54	-	56.00	46.00	-14.46	-
5	1.134	0.15	34.39	-	34.54	-	56.00	46.00	-21.46	-
6	1.513	0.16	31.38	-	31.54	-	56.00	46.00	-24.46	-
7	7.193	0.28	27.37	-	27.65	-	60.00	50.00	-32.35	-
8	12.869	0.49	33.75	-	34.24	-	60.00	50.00	-25.76	-

NOTE:

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.

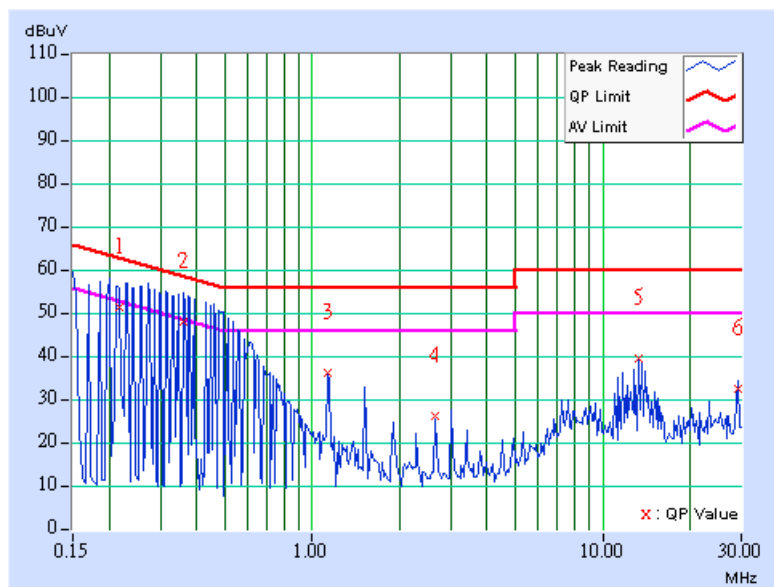


EUT	Wireless Router	MODEL	Gigaset SE505 (S30853-S1006-R317-2)
MODE	Channel 11	6dB BANDWIDTH	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	PHASE	Line (L)
ENVIRONMENTAL CONDITIONS	23 deg. C, 63%RH, 991 hPa	TESTED BY: Long Chen	

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	0.217	0.12	50.15	-	50.27	-	62.92	52.92	-12.65	-
2	0.361	0.13	46.71	-	46.84	-	58.71	48.71	-11.87	-
3	1.134	0.15	34.83	-	34.98	-	56.00	46.00	-21.02	-
4	2.646	0.18	24.73	-	24.91	-	56.00	46.00	-31.09	-
5	13.240	0.61	38.32	-	38.93	-	60.00	50.00	-21.07	-
6	29.068	1.40	31.18	-	32.58	-	60.00	50.00	-27.42	-

NOTE:

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.

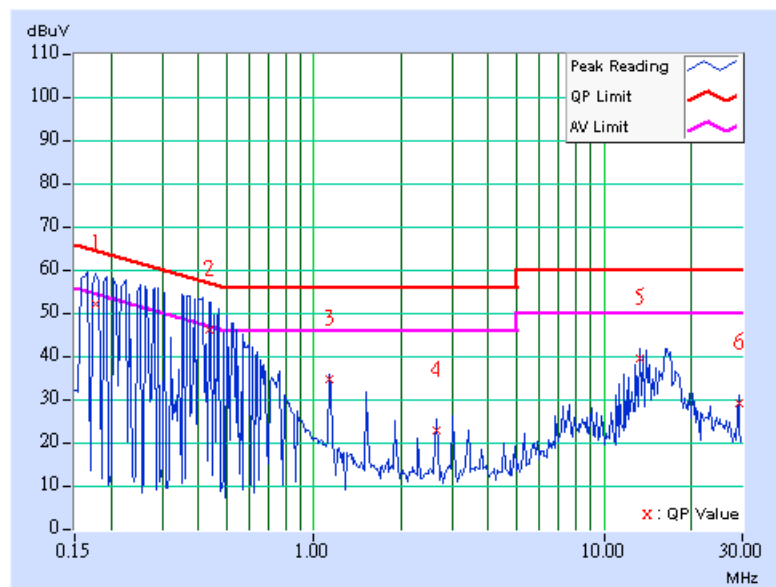


EUT	Wireless Router	MODEL	Gigaset SE505 (S30853-S1006-R317-2)
MODE	Channel 11	6dB BANDWIDTH	9 kHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	PHASE	Netural (N)
ENVIRONMENTAL CONDITIONS	23 deg. C, 63%RH, 991 hPa	TESTED BY: Long Chen	

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	51.66	-	51.77	-	64.61	54.61	-12.84	-
2	0.435	0.12	45.58	-	45.70	-	57.15	47.15	-11.46	-
3	1.134	0.15	34.00	-	34.15	-	56.00	46.00	-21.85	-
4	2.646	0.17	22.46	-	22.63	-	56.00	46.00	-33.37	-
5	13.244	0.51	38.92	-	39.43	-	60.00	50.00	-20.57	-
6	29.068	0.67	28.45	-	29.12	-	60.00	50.00	-30.88	-

NOTE:

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	MODEL NO.	MANUFACTURER	SERIAL NO.	CALIBRATED UNTIL
Test Receiver	ESI7	ROHDE & SCHWARZ	100033	May 28, 2004
Spectrum Analyzer	FSP40	ROHDE & SCHWARZ	100040	Dec. 15, 2004
BILOG Antenna	VULB9168	SCHWARZBECK	9168-153	Feb. 03, 2005
HORN Antenna	9120D	SCHWARZBECK	9120D-408	Feb. 03, 2005
HORN Antenna	BBHA 9170	SCHWARZBECK	BBHA 9170243	Feb. 23, 2005
Preamplifier	8447D	Agilent	2944A10633	Jan. 15, 2005
Preamplifier	8449B	Agilent	3008A01964	Jan. 27, 2005
RF signal cable	SUCOFLEX 104	HUBER+SUHNNER	218183/4	Mar. 05, 2005
RF signal cable	SUCOFLEX 104	HUBER+SUHNNER	218195/4	Mar. 05, 2005
Software	ADT_Radiated_V5.14	ADT.	NA	X
Antenna Tower	MA 4000	inn-co GmbH	013303	X
Antenna Tower Controller	CO2000	inn-co GmbH	017303	X
Turn Table	TT100.	ADT.	TT93021703	X
Turn Table Controller	SC100.	ADT.	SC93021703	X

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.

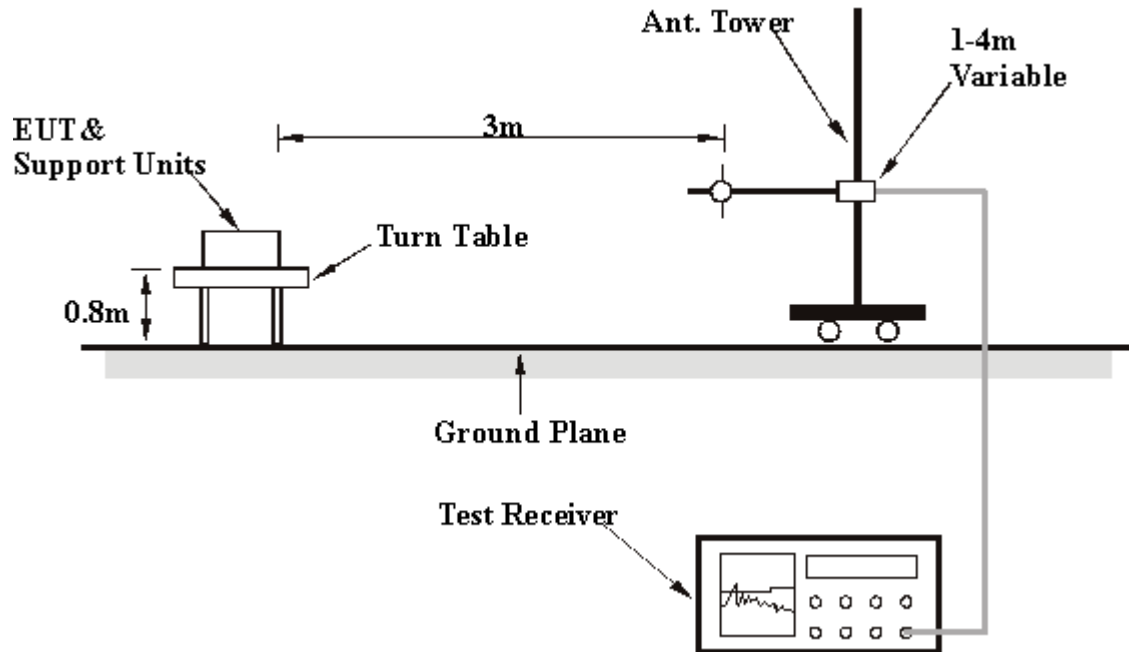
4.2.3 TEST PROCEDURES

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 10 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10 dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10 dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 10Hz for Average detection (AV) at frequency above 1GHz.

4.2.4 TEST SETUP



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

4.2.5 EUT OPERATING CONDITIONS

Same as 4.1.6

4.2.6 TEST RESULTS

EUT	Wireless Router		
MODEL	Gigaset SE505 (S30853-S1006-R317-2)		
MODE	Channel 11	FREQUENCY RANGE	Below 1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25 deg. C, 45 % RH, 991 hPa	TESTED BY: Gary 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	80.54	26.12 QP	40.00	-13.88	2.00 H	259	16.64	9.48
2	125.25	38.06 QP	43.50	-5.44	3.00 H	151	25.87	12.19
3	171.90	34.45 QP	43.50	-9.05	1.00 H	301	21.83	12.61
4	249.66	39.34 QP	46.00	-6.66	1.00 H	286	26.82	12.52
5	374.07	40.10 QP	46.00	-5.90	1.00 H	262	23.99	16.11
6	500.42	32.93 QP	46.00	-13.07	1.50 H	172	14.23	18.70
7	554.85	32.07 QP	46.00	-13.93	2.00 H	124	12.09	19.98
8	599.56	32.87 QP	46.00	-13.13	1.50 H	169	11.80	21.07
9	700.64	37.19 QP	46.00	-8.81	1.00 H	196	14.53	22.66
10	751.18	34.27 QP	46.00	-11.73	1.00 H	253	10.93	23.34
11	821.16	37.57 QP	46.00	-8.43	1.00 H	103	13.63	23.94
12	900.86	34.04 QP	46.00	-11.96	1.50 H	190	9.03	25.00

- 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 Router		
MODEL	Gigaset SE505 (S30853-S1006-R317-2)		
MODE	Channel 11	FREQUENCY RANGE	Below 1000 MHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25 deg. C, 45 % RH, 991 hPa	TESTED BY: Gary 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	60.21	31.94 QP	40.00	-8.06	1.12 V	6	19.40	12.53
2	90.26	30.88 QP	43.50	-12.62	1.00 V	166	21.39	9.48
3	125.00	38.28 QP	43.50	-5.22	1.12 V	257	26.11	12.17
4	168.02	34.48 QP	43.50	-9.02	1.00 V	208	21.43	13.05
5	249.66	38.09 QP	46.00	-7.91	1.00 V	217	25.56	12.52
6	374.07	38.29 QP	46.00	-7.71	1.50 V	160	22.18	16.11
7	500.42	37.13 QP	46.00	-8.87	1.00 V	28	18.43	18.70
8	599.56	32.89 QP	46.00	-13.11	1.00 V	202	11.82	21.07
9	700.64	38.38 QP	46.00	-7.62	1.50 V	169	15.72	22.66
10	751.18	31.53 QP	46.00	-14.47	1.00 V	238	8.19	23.34
11	799.78	32.19 QP	46.00	-13.81	2.50 V	142	8.47	23.72
12	900.86	35.75 QP	46.00	-10.25	1.50 V	175	10.75	25.00

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

4.2.7 TEST RESULTS (FOR CCK)

EUT	Wireless Router		
MODEL	Gigaset SE505 (S30853-S1006-R317-2)		
MODE	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	20 deg. C, 69 % RH, 991 hPa	TESTED BY: Gary 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	1680.00	42.36 PK	74.00	-31.64	1.41 V	34	13.74	28.62
2	2390.00	52.78 PK	74.00	-21.22	1.74 V	241	21.64	31.14
2	2390.00	43.54 AV	54.00	-10.46	1.74 V	241	12.40	31.14
3	*2412.00	102.24 PK			1.74 V	241	71.03	31.21
3	*2412.00	94.65 AV			1.74 V	241	63.44	31.21
4	3216.00	53.39 PK	74.00	-20.61	1.67 V	314	19.86	33.53
4	3216.00	50.17 AV	54.00	-3.83	1.67 V	314	16.64	33.53
5	4824.00	48.60 PK	74.00	-25.40	1.63 V	34	10.72	37.88
6	7236.00	52.52 PK	74.00	-21.48	1.23 V	34	9.07	43.46
6	7236.00	44.16 AV	54.00	-9.84	1.23 V	34	0.71	43.46
7	9648.00	55.88 PK	74.00	-18.12	1.46 V	241	9.48	46.40
7	9648.00	46.30 AV	54.00	-7.70	1.46 V	241	-0.10	46.40

REMARKS:

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

EUT	Wireless Router		
MODEL	Gigaset SE505 (S30853-S1006-R317-2)		
MODE	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	20 deg. C, 69 % RH, 991 hPa	TESTED BY: Gary 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	1608.00	47.02 PK	74.00	-26.98	1.00 H	272	18.45	28.57
1	1608.00	34.66 AV	54.00	-19.34	1.00 H	272	6.09	28.57
2	2390.00	55.64 PK	74.00	-18.36	1.35 H	238	24.50	31.14
2	2390.00	45.64 AV	54.00	-8.36	1.35 H	238	14.50	31.14
3	*2412.00	108.53 PK			1.35 H	238	77.32	31.21
3	*2412.00	102.34 AV			1.35 H	238	71.13	31.21
4	3216.00	59.76 PK	74.00	-14.24	1.51 H	114	26.23	33.53
5	4824.00	52.13 PK	74.00	-21.87	1.37 H	22	14.25	37.88
5	4824.00	38.91 AV	54.00	-15.09	1.37 H	22	1.03	37.88
6	7236.00	51.29 PK	74.00	-22.71	1.51 H	114	7.84	43.46
6	7236.00	42.46 AV	54.00	-11.54	1.51 H	114	-0.99	43.46
7	9648.00	54.65 PK	74.00	-19.35	1.51 H	114	8.25	46.40
7	9648.00	46.50 AV	54.00	-7.50	1.51 H	114	0.10	46.40

REMARKS:

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

EUT	Wireless Router		
MODEL	Gigaset SE505 (S30853-S1006-R317-2)		
MODE	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	20 deg. C, 69 % RH, 991 hPa	TESTED BY: Gary 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	1624.00	46.92 PK	74.00	-27.08	1.25 V	241	18.34	28.58
2	*2437.00	102.82 PK			1.71 V	279	71.49	31.34
2	*2437.00	95.44 AV			1.71 V	279	64.11	31.34
3	3249.00	50.94 PK	74.00	-23.06	1.62 V	241	17.35	33.59
4	4874.00	55.68 PK	74.00	-18.32	1.02 V	325	17.69	37.99
4	4874.00	45.84 AV	54.00	-8.16	1.02 V	325	7.85	37.99
5	7310.00	50.73 PK	74.00	-23.27	1.29 V	32	7.08	43.65
5	7310.00	43.63 AV	54.00	-10.37	1.29 V	32	-0.02	43.65
6	9748.00	54.58 PK	74.00	-19.42	1.24 V	84	8.20	46.38
6	9748.00	46.48 AV	54.00	-7.52	1.24 V	84	0.10	46.38

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 Router		
MODEL	Gigaset SE505 (S30853-S1006-R317-2)		
MODE	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	20 deg. C, 69 % RH, 991 hPa	TESTED BY: Gary 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	1624.00	47.93 PK	74.00	-26.07	1.22 H	130	19.35	28.58
2	*2437.00	107.02 PK			1.33 H	254	75.68	31.34
2	*2437.00	99.59 AV			1.33 H	254	68.25	31.34
3	3249.00	58.29 PK	74.00	-15.71	1.00 H	34	24.70	33.59
4	4874.00	54.69 PK	74.00	-19.31	1.12 H	185	16.70	37.99
4	4874.00	45.34 AV	54.00	-8.66	1.12 H	185	7.35	37.99
5	7311.00	50.65 PK	74.00	-23.35	1.41 H	154	7.00	43.66
5	7311.00	43.63 AV	54.00	-10.37	1.41 H	154	-0.02	43.66
6	9748.00	54.48 PK	74.00	-19.52	1.01 H	25	8.10	46.38
6	9748.00	46.78 AV	54.00	-7.22	1.01 H	25	0.40	46.38

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 Router		
MODEL	Gigaset SE505 (S30853-S1006-R317-2)		
MODE	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	20 deg. C, 69 % RH, 991 hPa	TESTED BY: Gary 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	1641.00	46.31 PK	74.00	-27.69	1.21 V	41	17.71	28.59
2	*2462.00	101.48 PK			1.62 V	281	70.02	31.46
2	*2462.00	93.78 AV			1.62 V	281	62.32	31.46
3	2483.50	52.77 PK	74.00	-21.23	1.62 V	281	21.20	31.57
3	2483.50	44.07 AV	54.00	-9.93	1.62 V	281	12.50	31.57
4	3282.00	48.81 PK	74.00	-25.19	1.63 V	51	15.16	33.65
5	4924.00	57.10 PK	74.00	-16.90	1.00 V	241	18.99	38.11
5	4924.00	47.28 AV	54.00	-6.72	1.00 V	241	9.17	38.11
6	7386.00	51.86 PK	74.00	-22.14	1.47 V	41	7.95	43.91
6	7386.00	43.76 AV	54.00	-10.24	1.47 V	41	-0.15	43.91
7	9848.00	55.23 PK	74.00	-18.77	1.26 V	208	8.72	46.51
7	9848.00	46.21 AV	54.00	-7.79	1.26 V	208	-0.30	46.51

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 Router		
MODEL	Gigaset SE505 (S30853-S1006-R317-2)		
MODE	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	20 deg. C, 69 % RH, 991 hPa	TESTED BY: Gary 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	1641.00	49.58 PK	74.00	-24.42	1.64 H	352	20.98	28.59
1	1641.00	35.61 AV	54.00	-18.39	1.64 H	352	7.01	28.59
2	*2462.00	108.28 PK			1.35 H	237	76.82	31.46
2	*2462.00	100.62 AV			1.35 H	237	69.16	31.46
3	2483.50	53.79 PK	74.00	-20.21	1.35 H	237	22.22	31.57
3	2483.50	45.34 AV	54.00	-8.66	1.35 H	237	13.77	31.57
4	3284.00	54.56 PK	74.00	-19.44	1.00 H	24	20.91	33.65
4	3284.00	52.48 AV	54.00	-1.52	1.00 H	24	18.83	33.65
5	4924.00	55.88 PK	74.00	-18.12	1.24 H	52	17.77	38.11
5	4924.00	45.78 AV	54.00	-8.22	1.24 H	52	7.67	38.11
6	7386.00	50.66 PK	74.00	-23.34	1.37 H	165	6.75	43.91
6	7386.00	42.86 AV	54.00	-11.14	1.37 H	165	-1.05	43.91
7	9848.00	54.95 PK	74.00	-19.05	1.22 H	195	8.44	46.51
7	9848.00	46.21 AV	54.00	-7.79	1.22 H	195	-0.30	46.51

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 (FOR OFDM)

EUT	Wireless Router		
MODEL	Gigaset SE505 (S30853-S1006-R317-2)		
MODE	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	20 deg. C, 69 % RH, 991 hPa	TESTED BY: Gary 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	1608.00	44.08 PK	74.00	-29.92	1.20 V	21	15.51	28.57
2	2390.00	57.62 PK	74.00	-16.38	1.76 V	243	26.48	31.14
2	2390.00	46.69 AV	54.00	-7.31	1.76 V	243	15.55	31.14
3	*2412.00	101.81 PK			1.76 V	243	70.60	31.21
3	*2412.00	93.42 AV			1.76 V	243	62.21	31.21
4	3216.00	53.34 PK	74.00	-20.66	1.45 V	360	19.81	33.53
4	3216.00	50.55 AV	54.00	-3.45	1.45 V	360	17.02	33.53
5	4824.00	54.64 PK	74.00	-19.36	1.10 V	240	16.76	37.88
5	4824.00	41.51 AV	54.00	-12.49	1.10 V	240	3.63	37.88
6	7236.00	52.85 PK	74.00	-21.15	1.50 V	34	9.40	43.46
6	7236.00	43.96 AV	54.00	-10.04	1.50 V	34	0.51	43.46
7	9648.00	55.80 PK	74.00	-18.20	1.43 V	252	9.40	46.40
7	9648.00	46.10 AV	54.00	-7.90	1.43 V	252	-0.30	46.40

REMARKS:

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

EUT	Wireless Router		
MODEL	Gigaset SE505 (S30853-S1006-R317-2)		
MODE	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	20 deg. C, 69 % RH, 991 hPa	TESTED BY: Gary 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	1608.00	47.46 PK	74.00	-26.54	1.27 H	51	18.89	28.57
2	2389.80	66.81 PK	74.00	-7.19	1.36 H	239	35.67	31.14
2	2389.80	51.94 AV	54.00	-2.06	1.36 H	239	20.80	31.14
3	*2412.00	108.97 PK			1.36 H	239	77.76	31.21
3	*2412.00	103.97 AV			1.36 H	239	72.76	31.21
4	3216.00	59.72 PK	74.00	-14.28	1.21 H	33	26.19	33.53
5	4824.00	58.21 PK	74.00	-15.79	1.59 H	358	20.33	37.88
5	4824.00	39.41 AV	54.00	-14.59	1.59 H	358	1.53	37.88
6	7236.00	50.69 PK	74.00	-23.31	1.20 H	234	7.24	43.46
6	7236.00	43.36 AV	54.00	-10.64	1.20 H	234	7.24	43.46
7	9648.00	54.21 PK	74.00	-19.79	1.12 H	84	7.81	46.40
7	9648.00	44.70 AV	54.00	-9.30	1.12 H	84	-1.70	46.40

REMARKS:

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

EUT	Wireless Router		
MODEL	Gigaset SE505 (S30853-S1006-R317-2)		
MODE	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	20 deg. C, 69 % RH, 991 hPa	TESTED BY: Gary 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	1624.50	45.17 PK	74.00	-28.83	1.48 V	341	16.59	28.58
2	*2437.00	103.87 PK			1.05 V	240	72.54	31.34
2	*2437.00	94.43 AV			1.05 V	240	63.09	31.34
3	3249.10	52.20 PK	74.00	-21.80	2.20 V	262	18.61	33.59
3	3249.10	48.64 AV	54.00	-5.36	2.20 V	262	15.05	33.59
4	4874.00	58.23 PK	74.00	-15.77	1.66 V	345	20.24	37.99
4	4874.00	46.31 AV	54.00	-7.69	1.66 V	345	8.32	37.99
5	7311.00	52.80 PK	74.00	-21.20	1.17 V	306	9.15	43.66
5	7311.00	43.63 AV	54.00	-10.37	1.17 V	306	-0.02	43.66
6	9748.00	55.33 PK	74.00	-18.67	1.32 V	47	8.95	46.38
6	9748.00	45.98 AV	54.00	-8.02	1.32 V	47	-0.40	46.38

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 Router		
MODEL	Gigaset SE505 (S30853-S1006-R317-2)		
MODE	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	20 deg. C, 69 % RH, 991 hPa	TESTED BY: Gary 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	1624.00	46.38 PK	74.00	-27.62	1.13 H	15	17.80	28.58
2	*2437.00	107.14 PK			1.09 H	240	75.80	31.34
2	*2437.00	96.97 AV			1.09 H	240	65.63	31.34
3	3249.00	56.08 PK	74.00	-17.92	1.55 H	237	22.49	33.59
3	3249.00	53.04 AV	54.00	-0.96	1.55 H	237	19.45	33.59
4	4874.00	59.28 PK	74.00	-14.72	1.54 H	71	21.29	37.99
4	4874.00	47.04 AV	54.00	-6.96	1.54 H	71	9.05	37.99
5	7311.00	52.03 PK	74.00	-21.97	1.34 H	352	8.38	43.66
5	7311.00	44.13 AV	54.00	-9.87	1.34 H	352	0.48	43.66
6	9748.00	52.62 PK	74.00	-21.38	1.01 H	41	6.24	46.38
6	9748.00	45.48 AV	54.00	-8.52	1.01 H	41	-0.90	46.38

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 Router		
MODEL	Gigaset SE505 (S30853-S1006-R317-2)		
MODE	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	20 deg. C, 69 % RH, 991 hPa	TESTED BY: Gary 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	1641.00	48.21 PK	74.00	-25.79	1.16 V	5	19.61	28.59
1	1641.00	36.01 AV	54.00	-17.99	1.16 V	5	7.41	28.59
2	*2462.00	103.73 PK			2.08 V	268	72.27	31.46
2	*2462.00	94.96 AV			2.08 V	268	63.50	31.46
3	2483.50	60.91 PK	74.00	-13.09	2.08 V	268	29.34	31.57
3	2483.50	50.34 AV	54.00	-3.66	2.08 V	268	18.77	31.57
4	3284.00	48.11 PK	74.00	-25.89	1.67 V	5	14.46	33.65
5	4924.00	55.51 PK	74.00	-18.49	1.59 V	21	17.40	38.11
5	4924.00	46.78 AV	54.00	-7.22	1.59 V	21	8.67	38.11
6	7386.00	52.39 PK	74.00	-21.61	1.16 V	34	8.48	43.91
6	7386.00	43.86 AV	54.00	-10.14	1.16 V	34	-0.05	43.91
7	9848.00	55.14 PK	74.00	-18.86	1.16 V	24	8.63	46.51
7	9848.00	45.81 AV	54.00	-8.19	1.16 V	24	-0.70	46.51

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 Router		
MODEL	Gigaset SE505 (S30853-S1006-R317-2)		
MODE	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak(PK) Average (AV)
ENVIRONMENTAL CONDITIONS	20 deg. C, 69 % RH, 991 hPa	TESTED BY: Gary 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	1641.00	51.34 PK	74.00	-22.66	1.42 H	22	22.74	28.59
1	1641.00	36.09 AV	54.00	-17.91	1.42 H	22	7.49	28.59
2	*2462.00	107.61 PK			1.36 H	39	76.15	31.46
2	*2462.00	97.97 AV			1.36 H	39	66.51	31.46
3	2483.50	61.44 PK	74.00	-12.56	1.36 H	39	29.87	31.57
3	2483.50	51.32 AV	54.00	-2.68	1.36 H	39	19.75	31.57
4	3284.00	55.40 PK	74.00	-18.60	1.42 H	22	21.75	33.65
4	3284.00	53.24 AV	54.00	-0.76	1.42 H	22	19.59	33.65
5	4924.00	59.78 PK	74.00	-14.22	1.03 H	352	21.67	38.11
5	4924.00	45.98 AV	54.00	-8.02	1.03 H	352	7.87	38.11
6	7386.00	50.76 PK	74.00	-23.24	1.16 H	61	6.85	43.91
6	7386.00	43.56 AV	54.00	-10.44	1.16 H	61	-0.35	43.91
7	9849.00	54.51 PK	74.00	-19.49	1.53 H	204	8.00	46.51
7	9849.00	45.81 AV	54.00	-8.19	1.53 H	204	-0.70	46.51

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	August 12, 2004

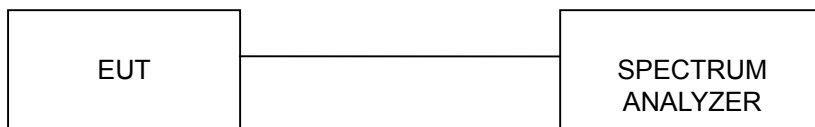
NOTE:

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 100 kHz VBW. The 6 dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6 dB.

4.3.4 TEST SETUP



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

4.3.5 EUT OPERATING CONDITIONS

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

4.3.6 TEST RESULTS (FOR CCK)

EUT	Wireless Router		
MODEL	Gigaset SE505 (S30853-S1006-R317-2)		
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	19 deg. C, 63%RH, 991 hPa
TESTED BY: Stanely Hsu			

CHANNEL	CHANNEL FREQUENCY (MHz)	6 dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS/FAIL
1	2412	11.16	0.5	PASS
6	2437	11.16	0.5	PASS
11	2462	11.16	0.5	PASS

*RBW 100 kHz Marker 1 [T1]
 *VBW 100 kHz -3.99 dBm
 *SWT 2.5 ms 2.406360000 GHz

Ref 20 dBm *Att 30 dB

20 Offset 0.5 dB

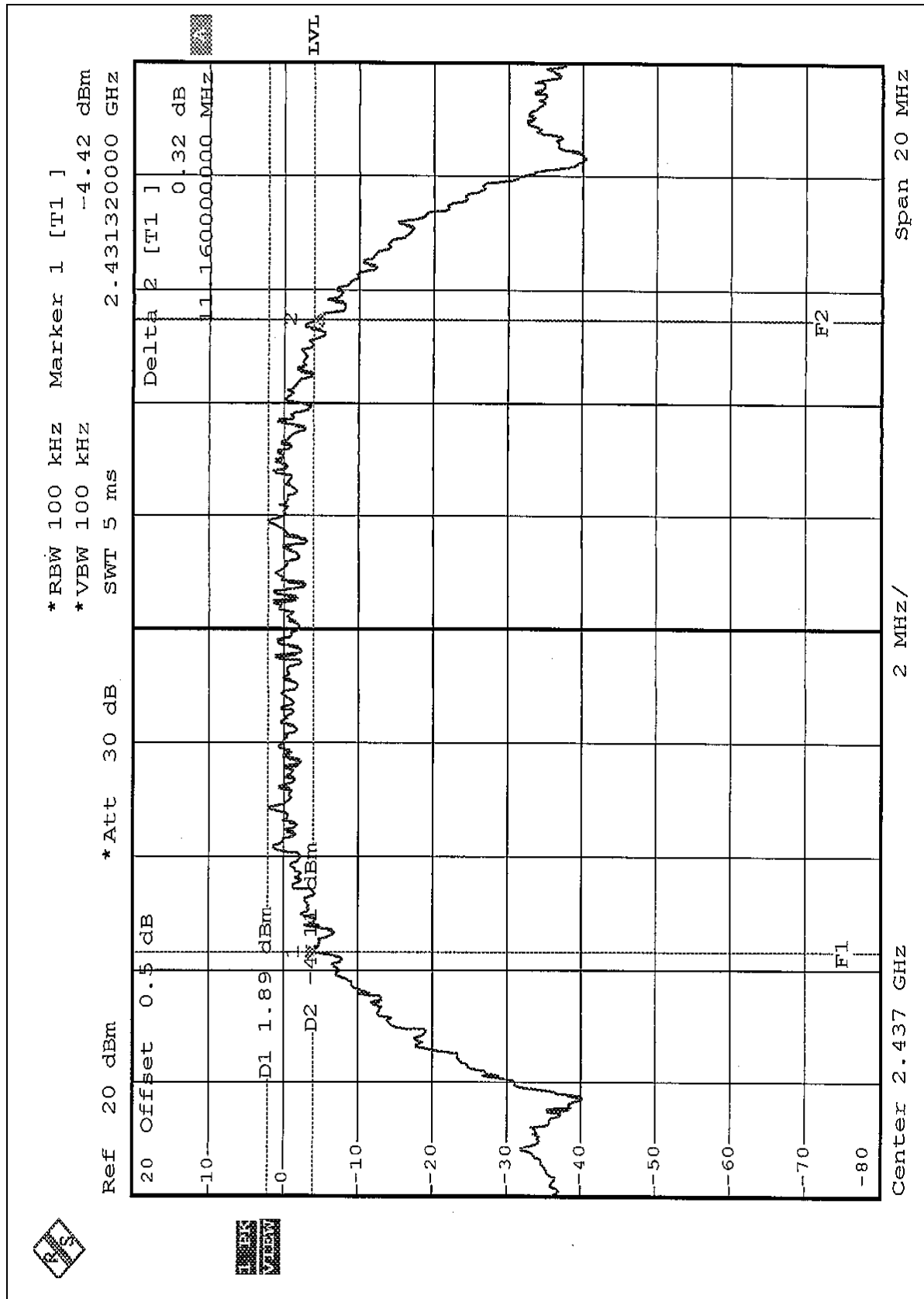
D1 2.01 dBm
 D2 -3.99 dBm

Delta 2 [T1]
 -0.20 dB
 11.160000000 MHz

F1
 F2

Center 2.412 GHz Span 20 MHz

CH6



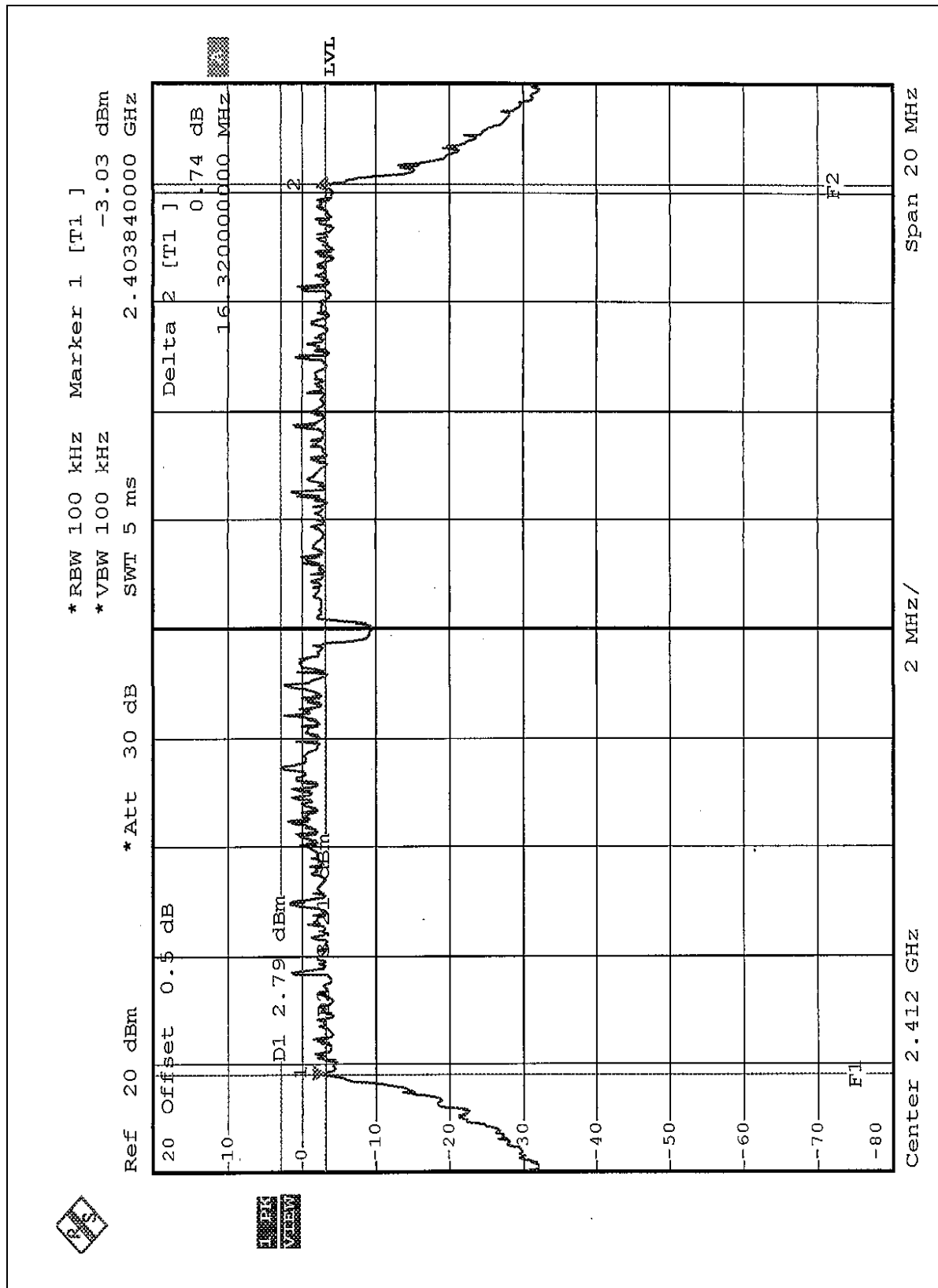
* RBW 100 kHz Marker 1 [T1]
 * VBW 100 kHz -3.92 dBm
 * Att 30 dB 2.456320000 GHz
 Ref 20 dBm
 Offset 0.5 dB
 D1 2.12 dBm
 D2 -3.92 dBm
 Delta 2 [T1]
 -0.10 dB
 1.160000000 MHz
 LVL
 F1
 F2
 Center 2.462 GHz
 Span 20 MHz
 2 MHz/

4.3.7 TEST RESULTS (FOR OFDM)

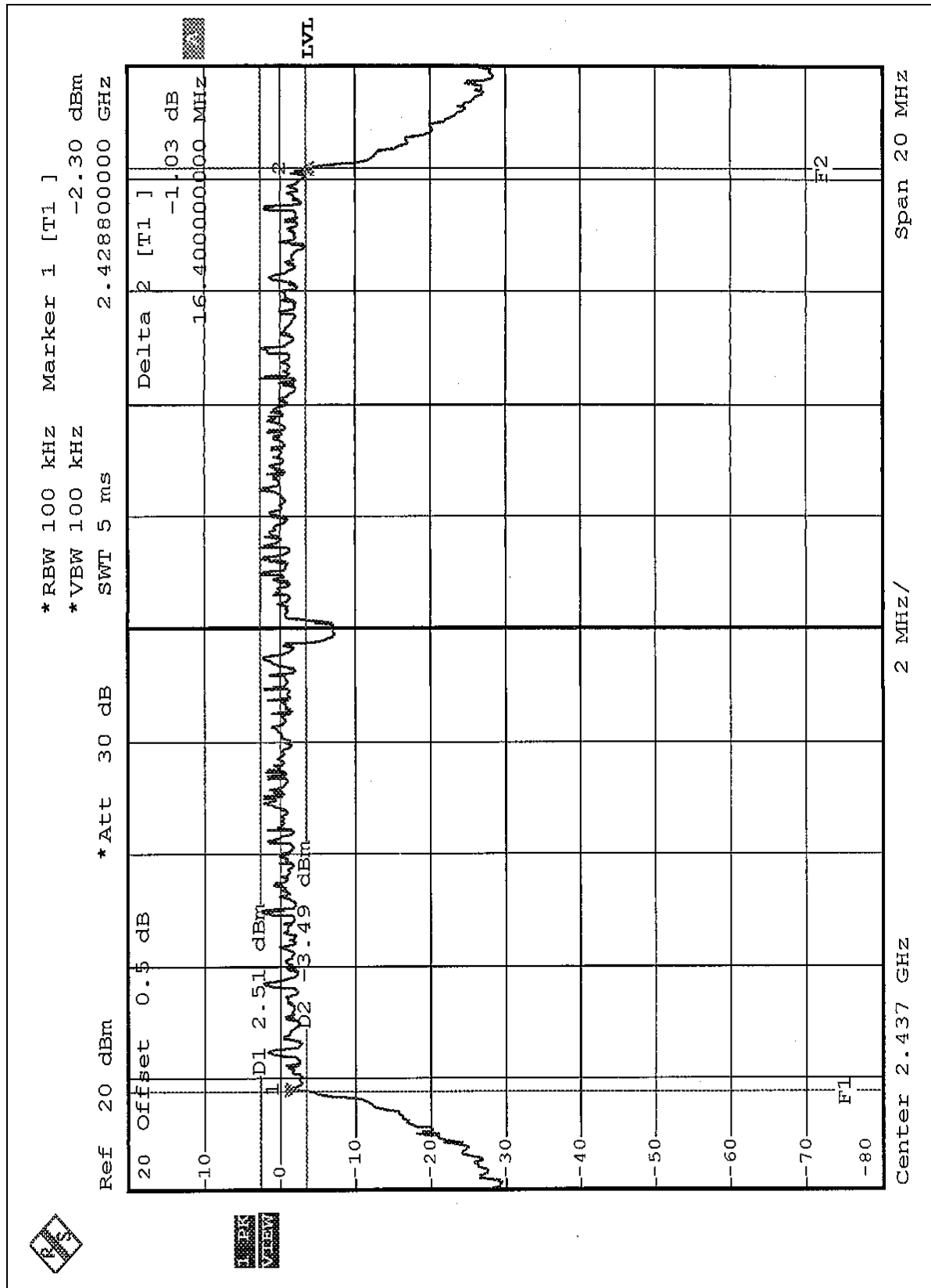
EUT	Wireless Router		
MODEL	Gigaset SE505 (S30853-S1006-R317-2)		
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	19 deg. C, 63%RH, 991 hPa
TESTED BY: Stanely Hsu			

CHANNEL	CHANNEL FREQUENCY (MHz)	6 dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS/FAIL
1	2412	16.32	0.5	PASS
6	2437	16.40	0.5	PASS
11	2462	16.40	0.5	PASS

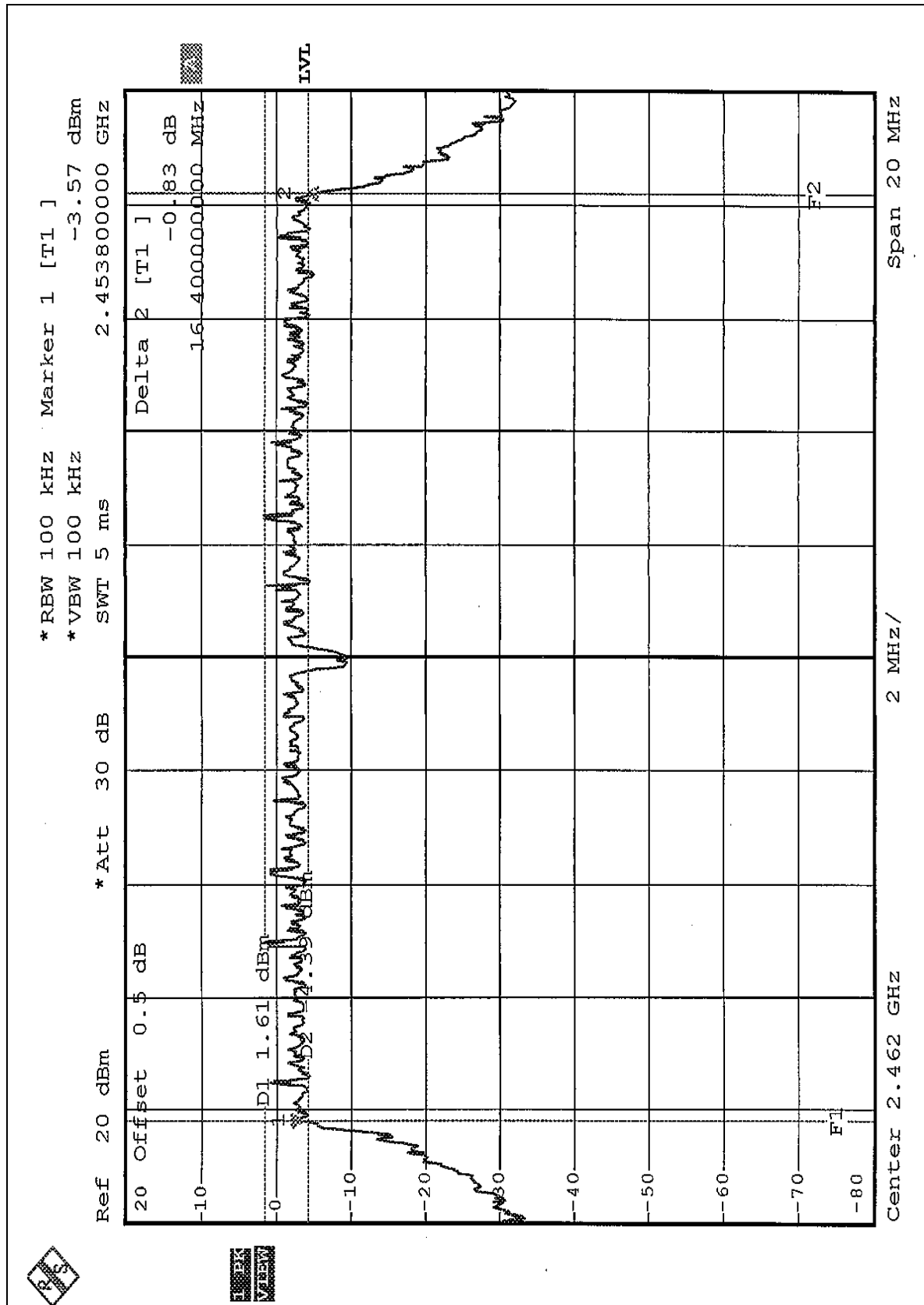
CH1



CH6



CH11



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
R&S SIGNAL GENERATOR	SMP04	100011	May 28, 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 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 (FOR CCK)

EUT	Wireless Router		
MODEL	Gigaset SE505 (S30853-S1006-R317-2)		
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	19 deg. C, 63%RH, 991 hPa
TESTED BY: Stanely Hsu			

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	14.34	30	PASS
6	2437	14.35	30	PASS
11	2462	14.05	30	PASS

4.4.8 TEST RESULTS (FOR OFDM)

EUT	Wireless Router		
MODEL	Gigaset SE505 (S30853-S1006-R317-2)		
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	19 deg. C, 63%RH, 991 hPa
TESTED BY: Stanely Hsu			

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	17.56	30	PASS
6	2437	17.42	30	PASS
11	2462	17.43	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	August 12, 2004

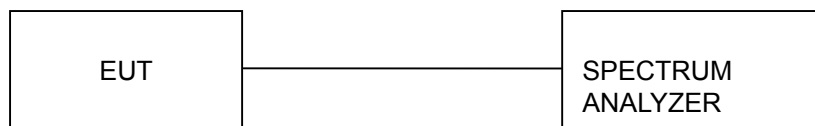
NOTE:

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 TEST SETUP



4.5.5 EUT OPERATING CONDITIONS

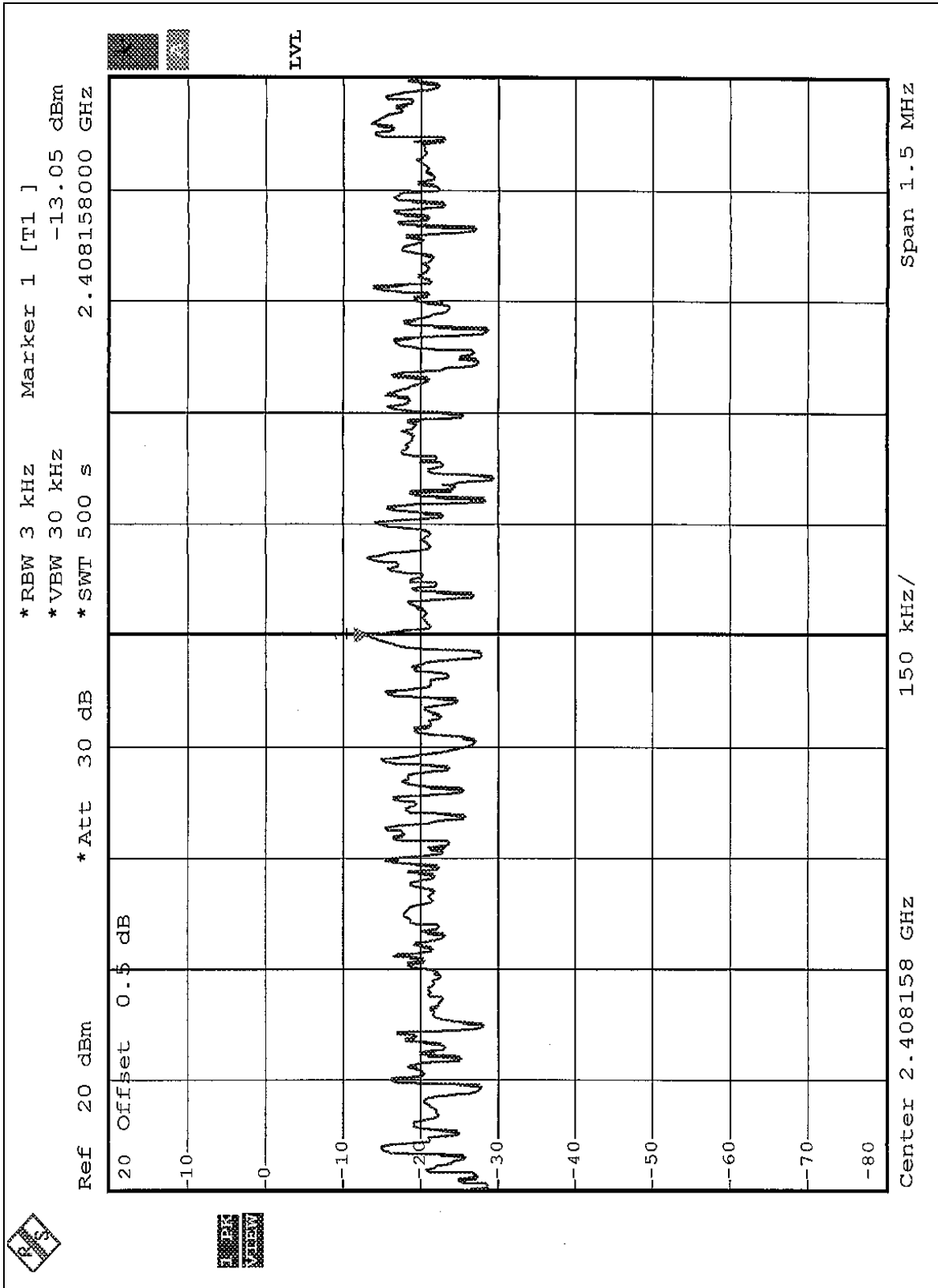
Same as 4.3.5

4.5.6 TEST RESULTS (FOR CCK)

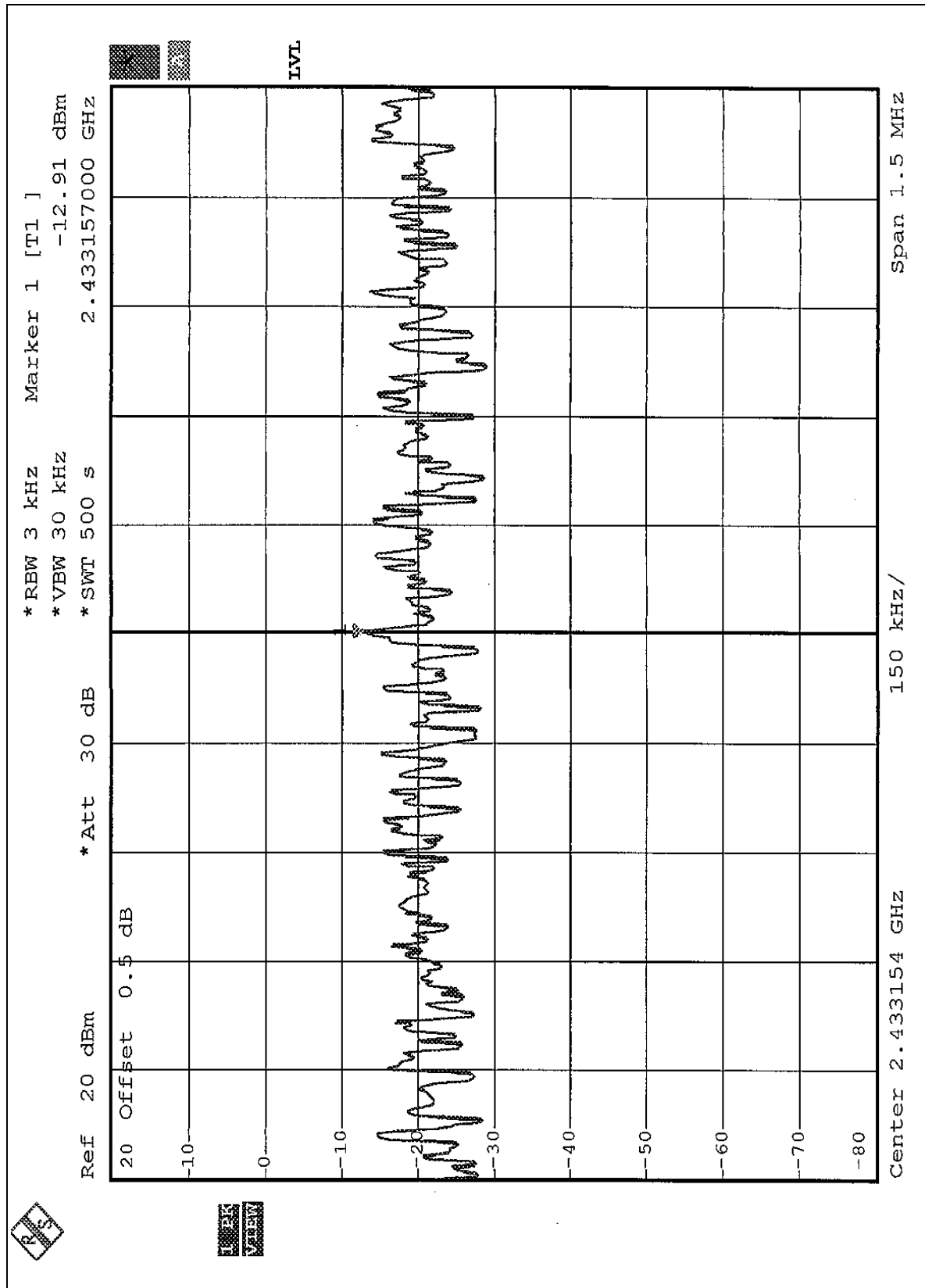
EUT	Wireless Router		
MODEL	Gigaset SE505 (S30853-S1006-R317-2)		
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	19 deg. C, 63%RH, 991 hPa
TESTED BY: Stanely Hsu			

CHANNEL NUMBER	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 KHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-13.05	8	PASS
6	2437	-12.91	8	PASS
11	2462	-12.56	8	PASS

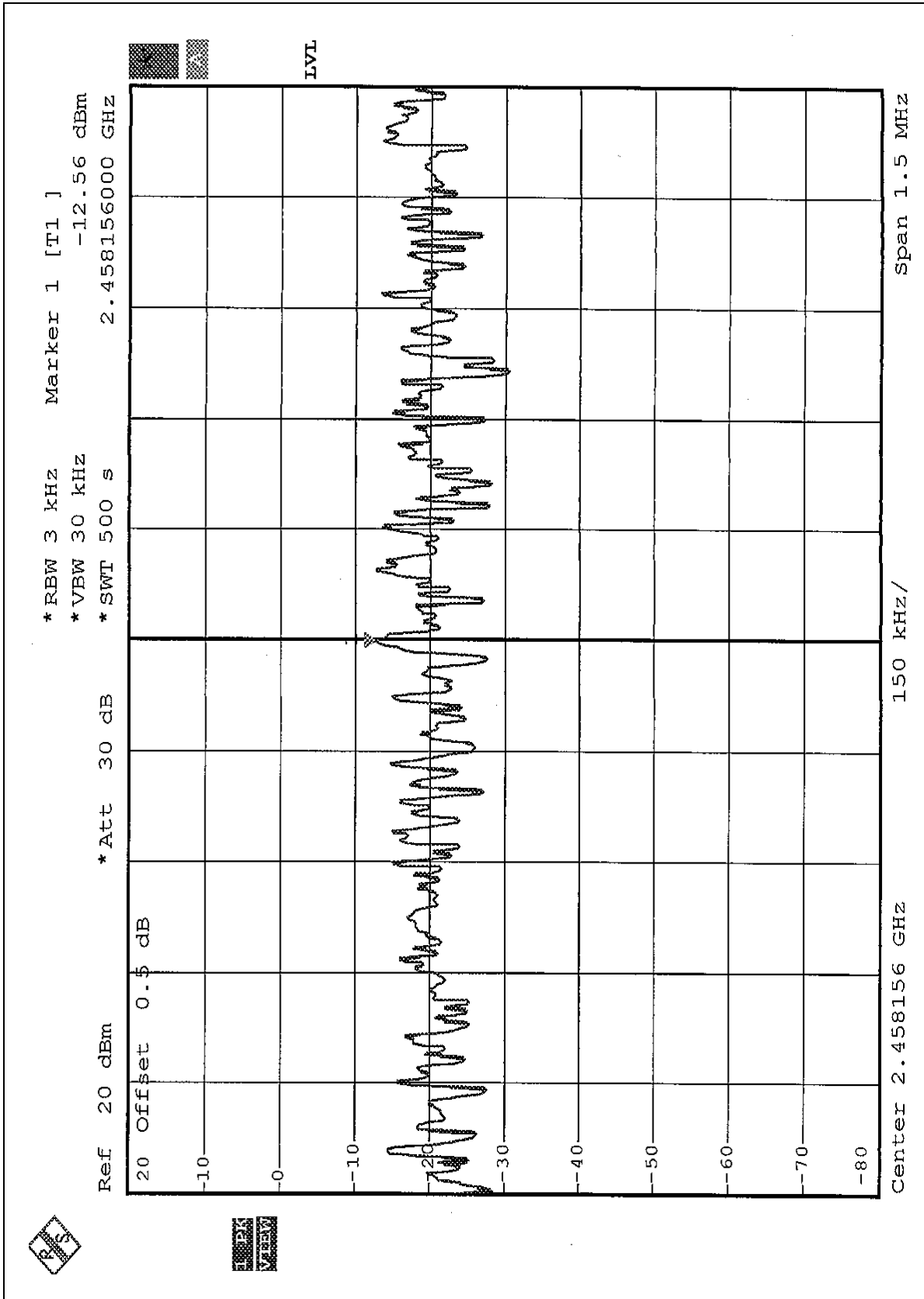
CH1



CH6



CH11

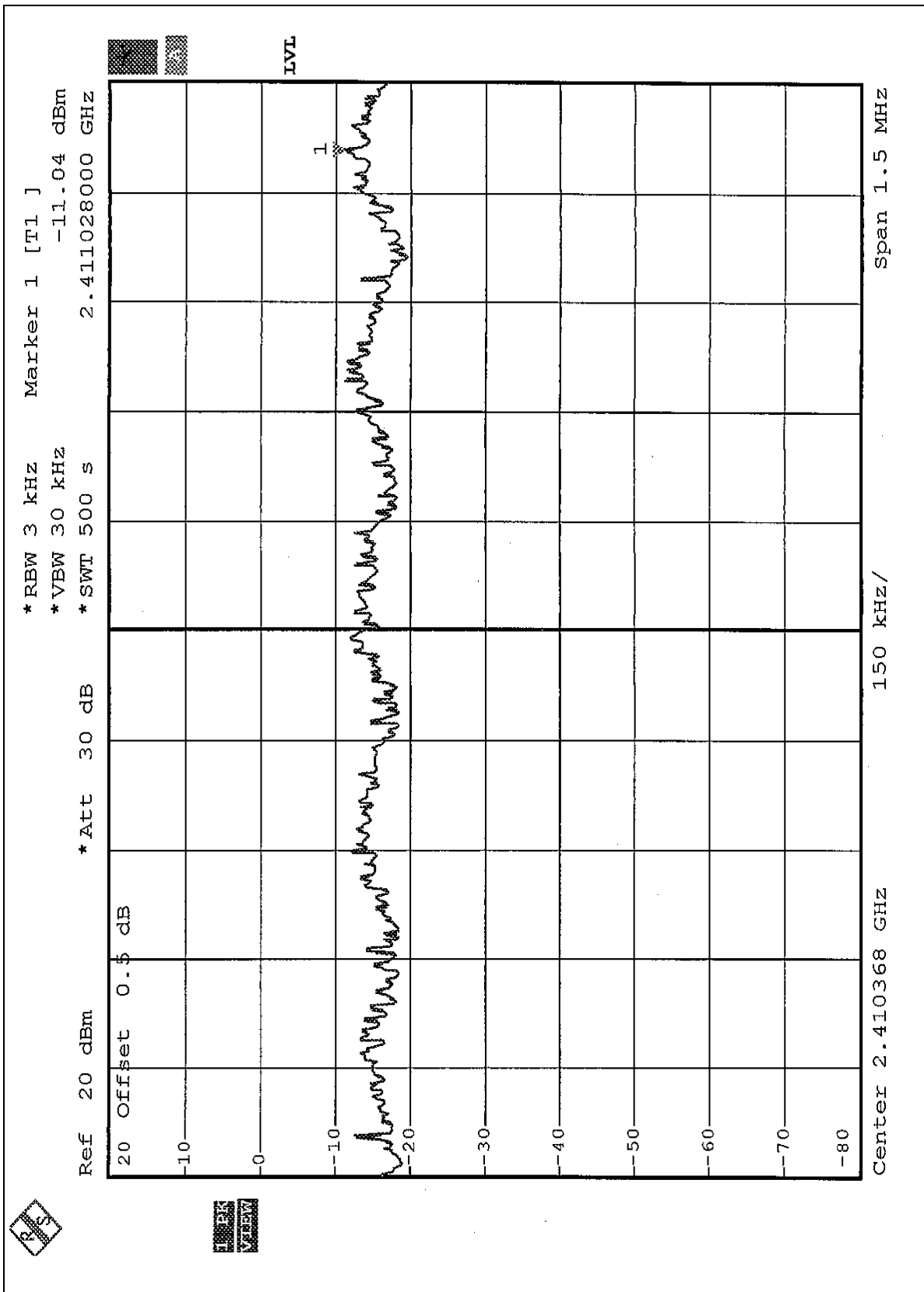


4.5.7 TEST RESULTS (FOR OFDM)

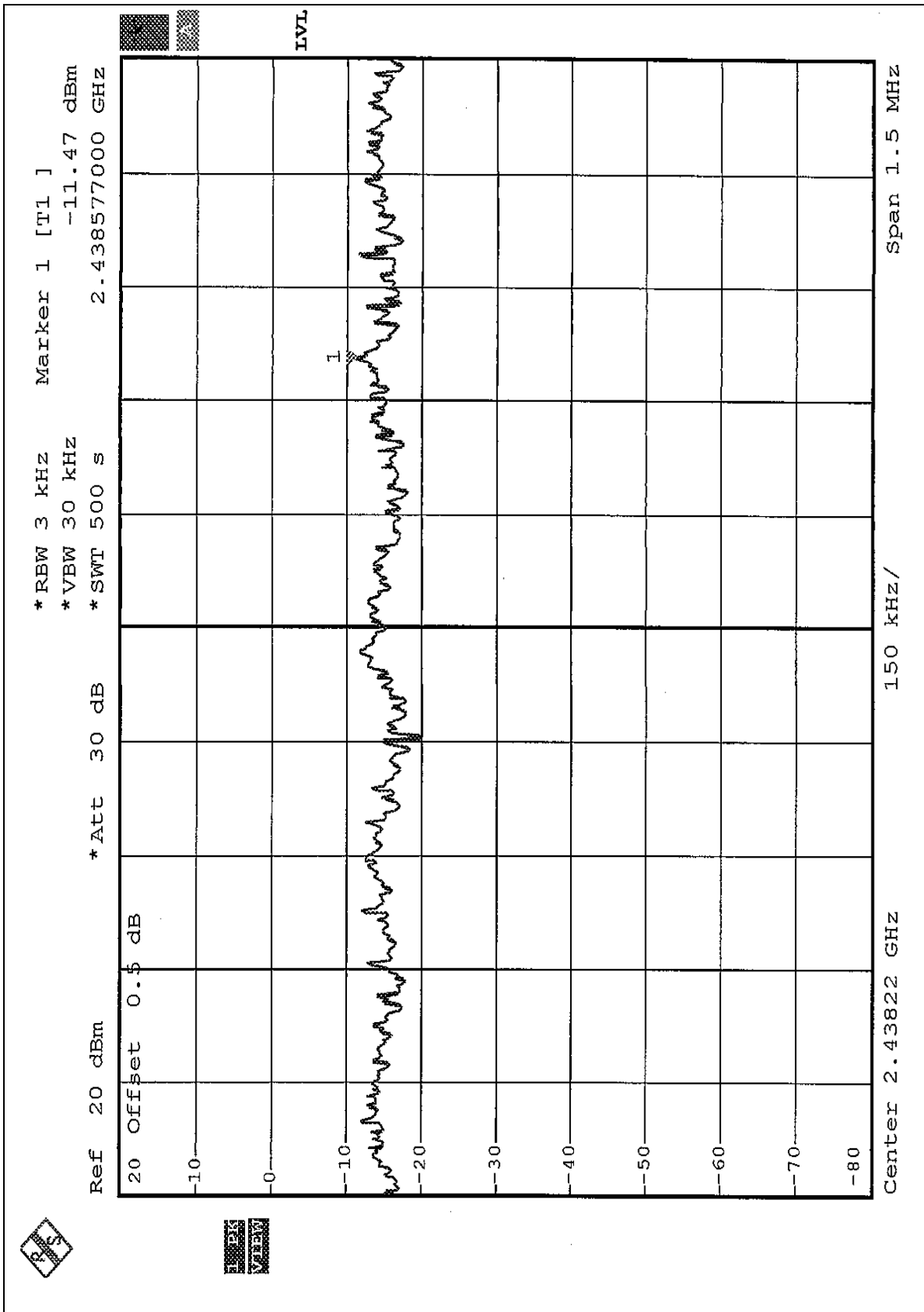
EUT	Wireless Router		
MODEL	Gigaset SE505 (S30853-S1006-R317-2)		
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	19 deg. C, 63%RH, 991 hPa
TESTED BY: Stanely Hsu			

CHANNEL NUMBER	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 KHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-11.04	8	PASS
6	2437	-11.47	8	PASS
11	2462	-11.62	8	PASS

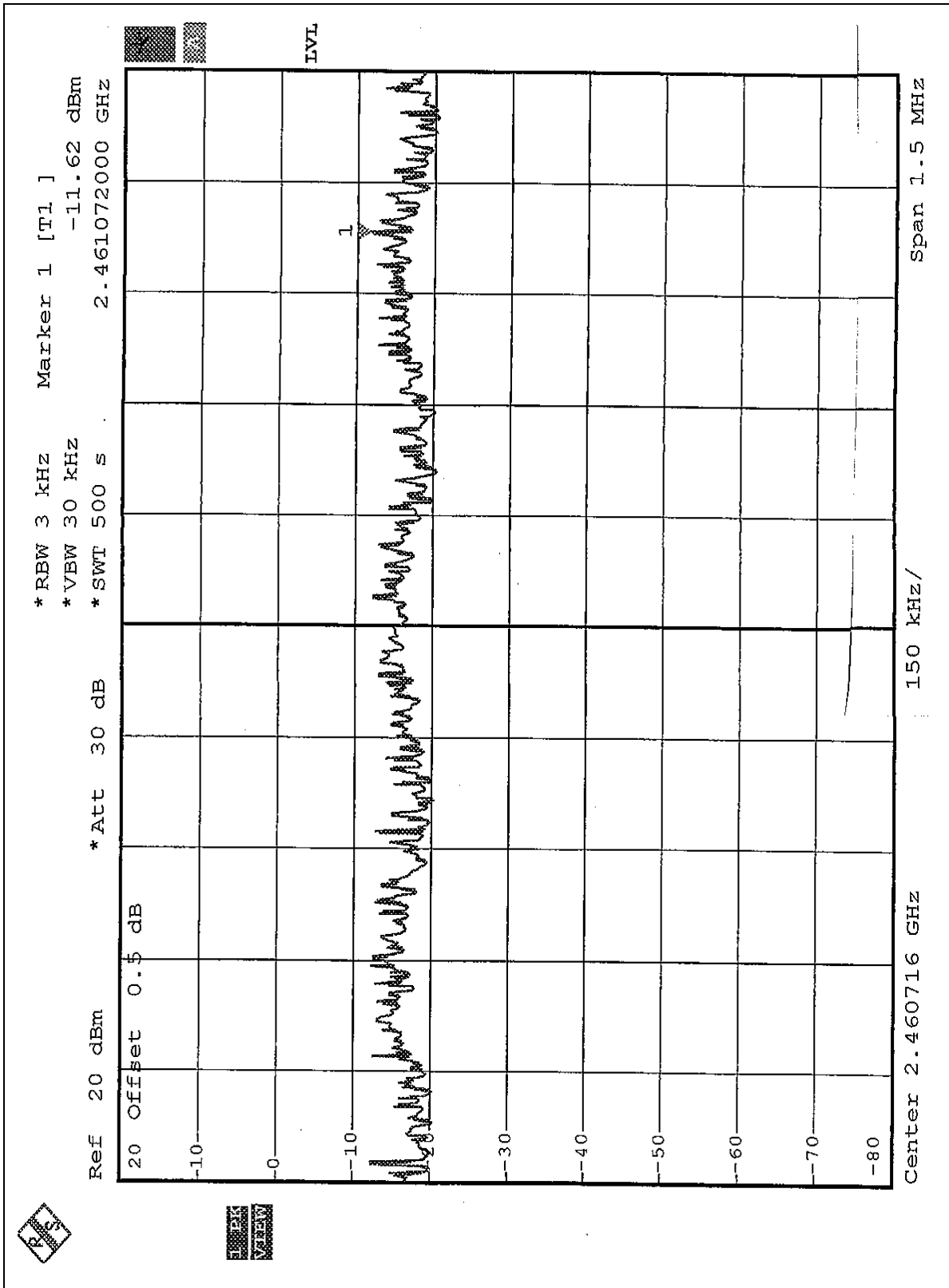
CH1



CH6



CH11



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	August 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 100 MHz bandwidth from band edge. The band edges was measured and recorded.

4.6.4 EUT OPERATING CONDITION

Same as Item 4.3.5

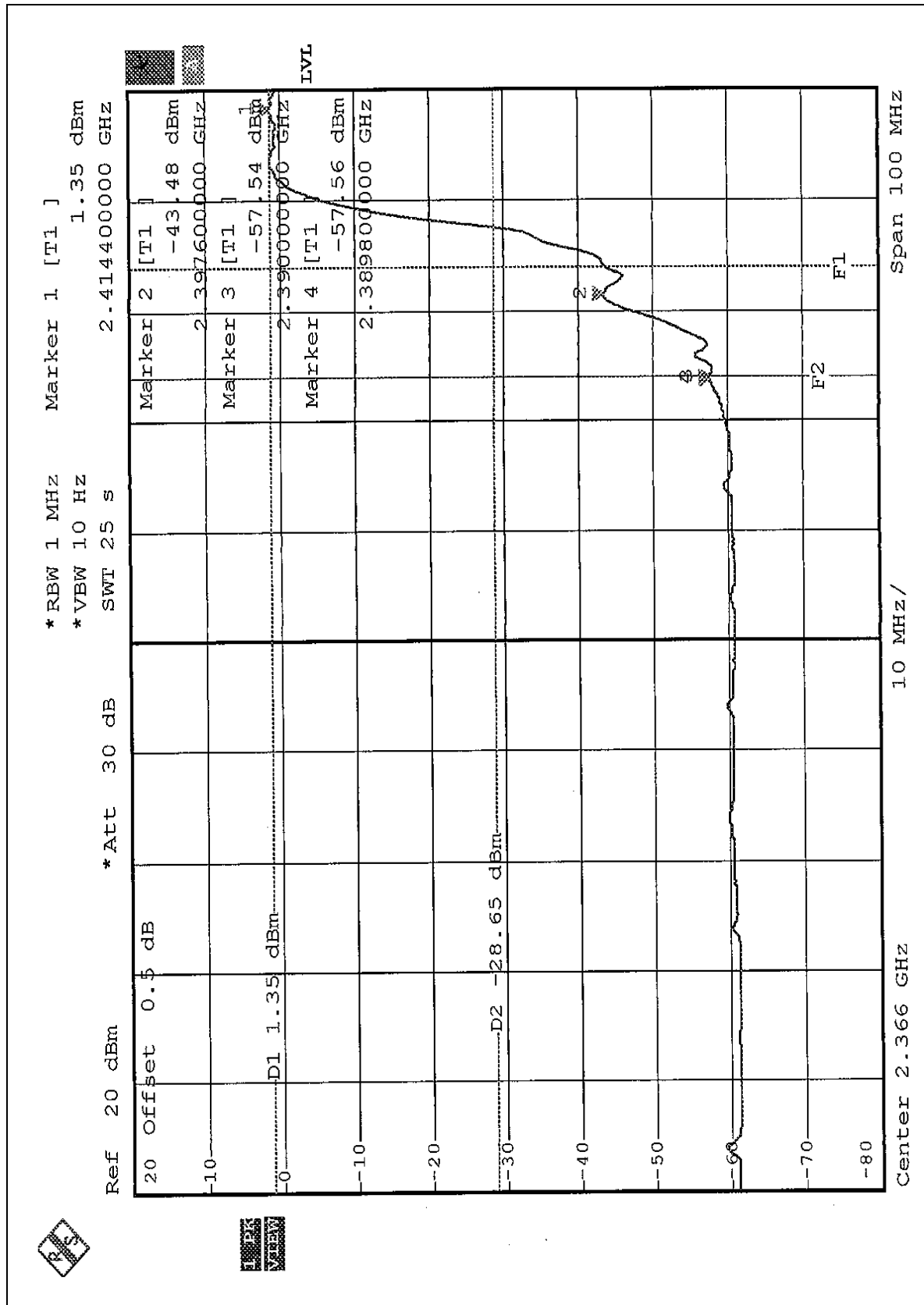


4.6.5 TEST RESULTS (FOR CCK)

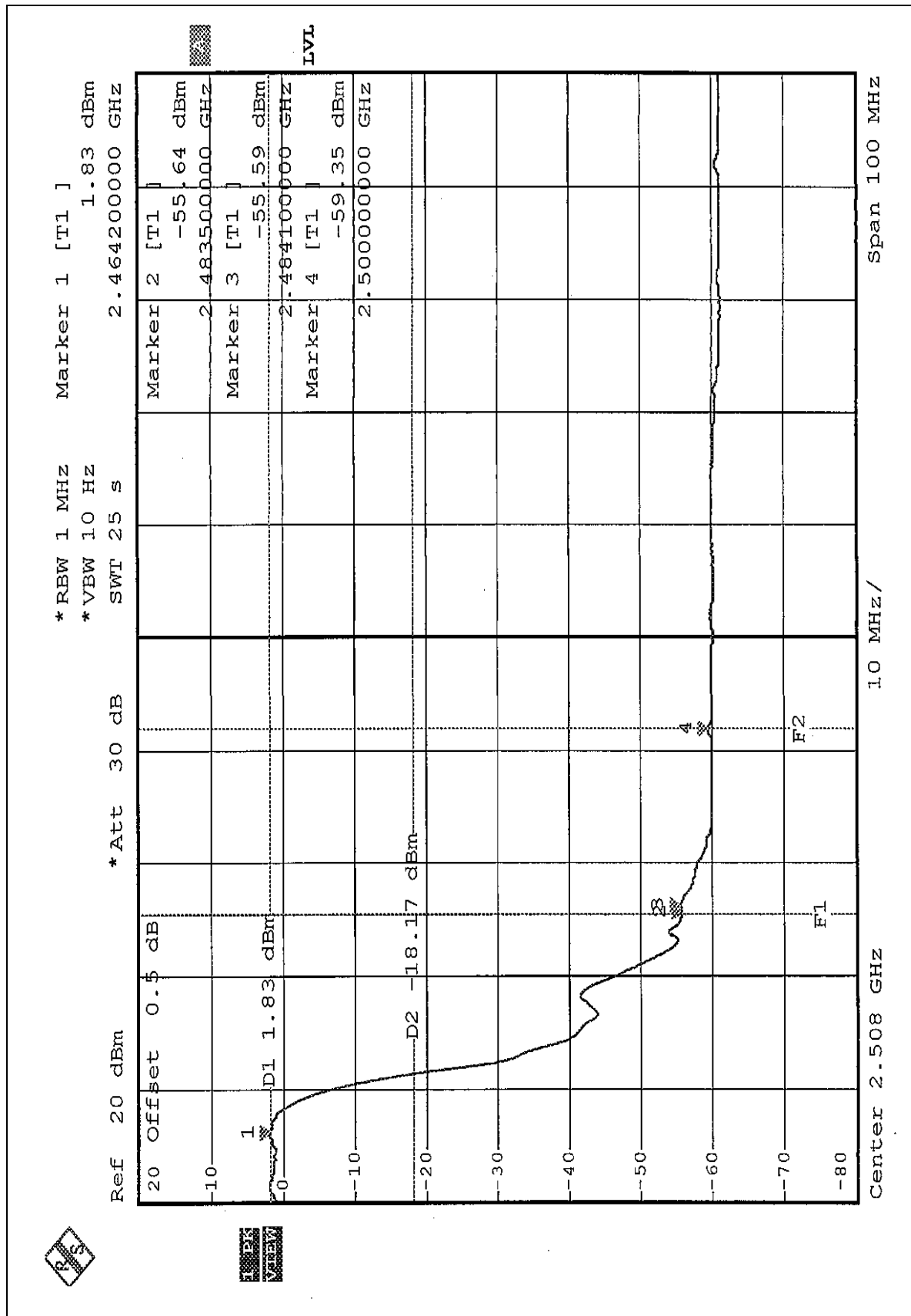
The spectrum plots are attached on the following 4 pages. D2 line indicates the highest level, D1 line indicates the 20dB offset below D2. It shows compliance with the requirement in part 15.247(C).

NOTE: The band edge emission plot on the following 1 ~ 2 pages shows 58.89dB 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 4.2.7 is 102.34dBuV/m, so the maximum field strength in restrict band is $102.34 - 58.89 = 43.45$ dBuV/m which is under 54 dBuV/m limit.

NOTE: The band edge emission plot on the following 3 ~ 4 pages shows 57.42dB delta between carrier maximum power and local maximum emission in restrict band (2.4841GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 100.62dBuV/m, so the maximum field strength in restrict band is $100.62 - 57.42 = 43.20$ dBuV/m which is under 54 dBuV/m limit.











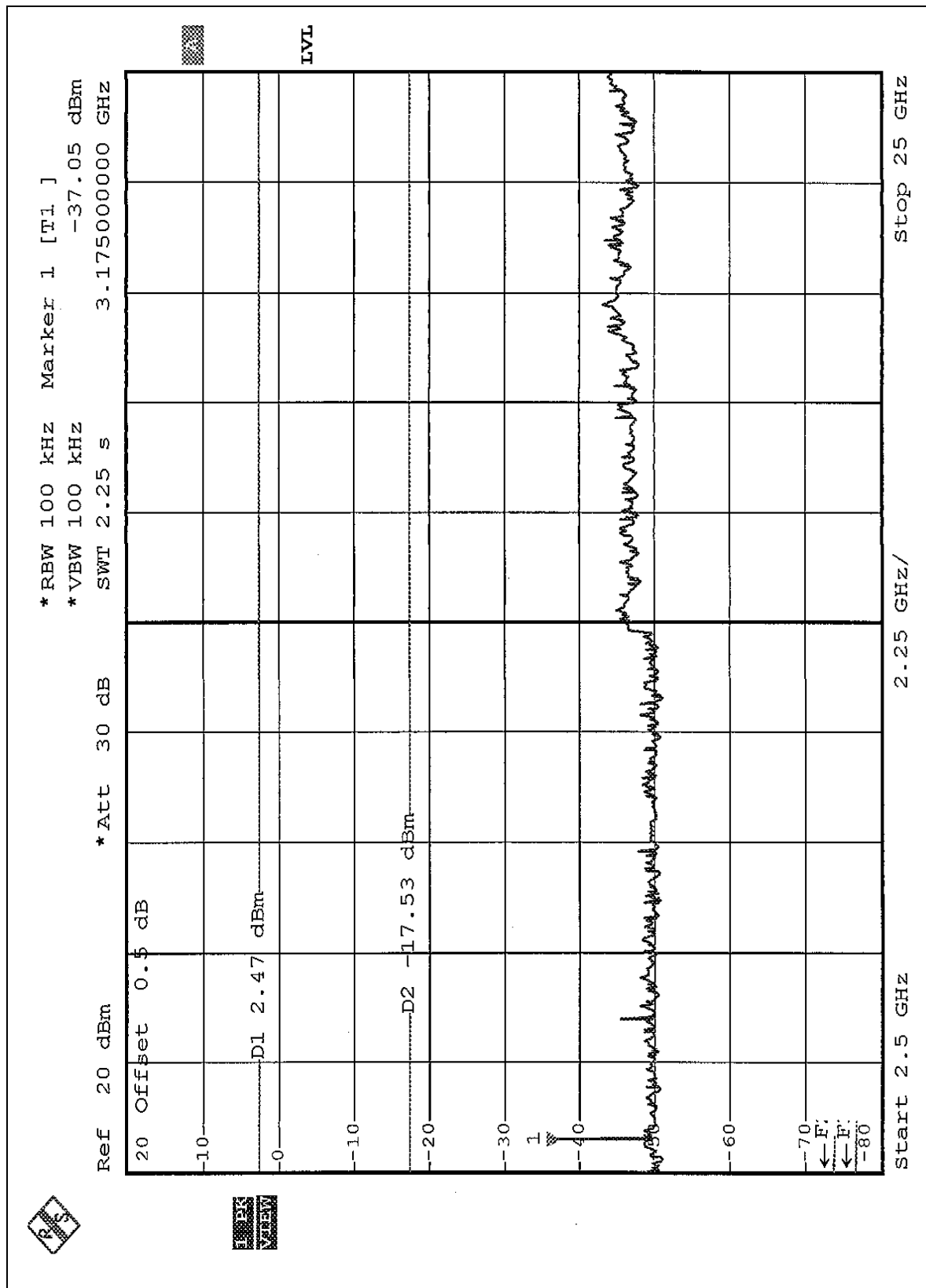
4.6.6 TEST RESULTS (FOR OFDM)

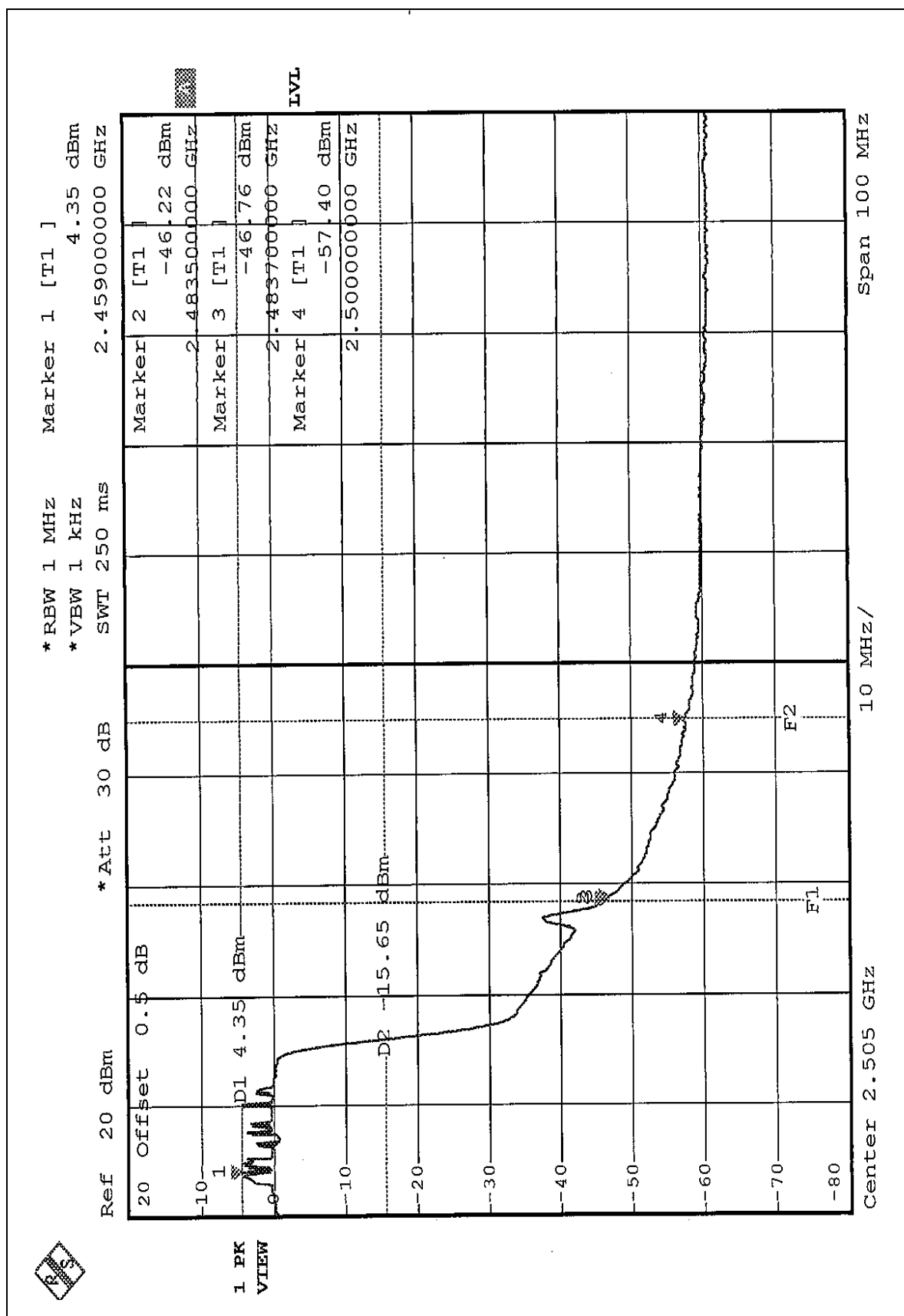
The spectrum plots are attached on the following 4 pages. D2 line indicates the highest level, D1 line indicates the 20dB offset below D2. It shows compliance with the requirement in part 15.247(C).

NOTE: The band edge emission plot on the following 1 ~ 2 pages shows 52.32dB 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 103.97dBuV/m, so the maximum field strength in restrict band is $103.97 - 52.32 = 51.65$ dBuV/m which is under 54 dBuV/m limit.

NOTE: The band edge emission plot on the following 3 ~ 4 pages shows 50.57dB 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 97.97dBuV/m, so the maximum field strength in restrict band is $97.97 - 50.57 = 47.40$ dBuV/m which is under 54 dBuV/m limit.











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.

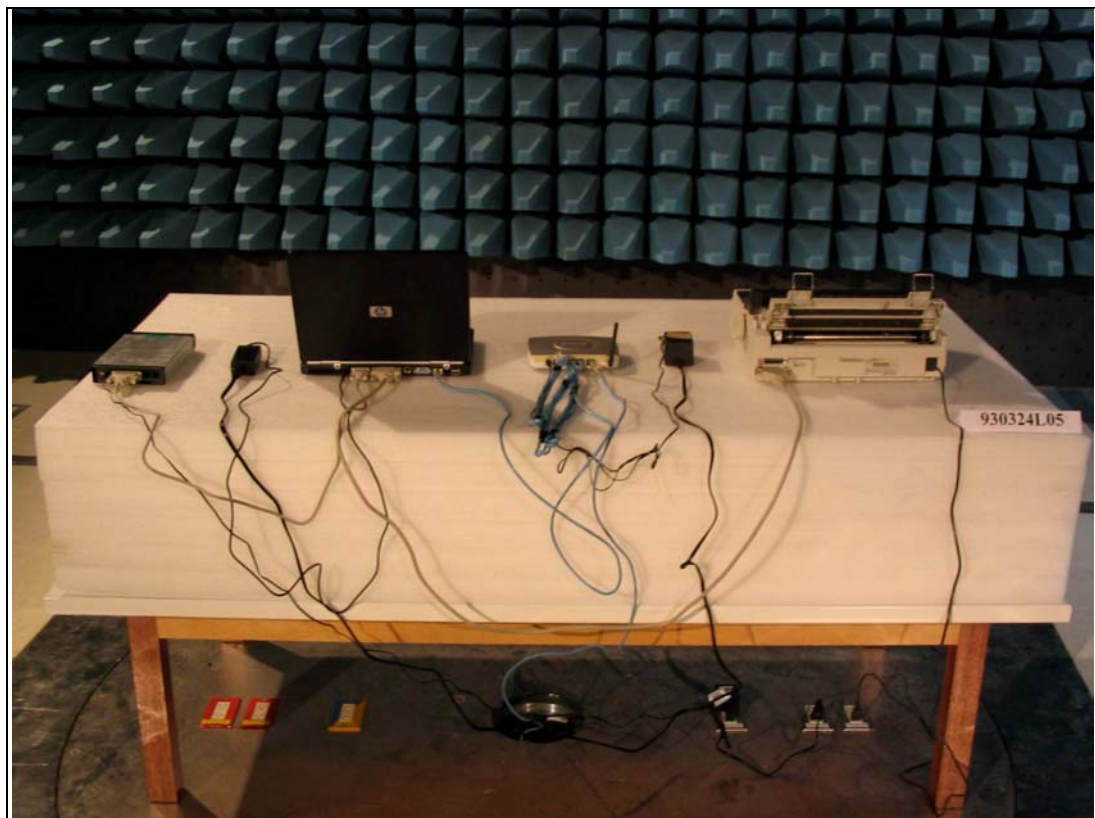
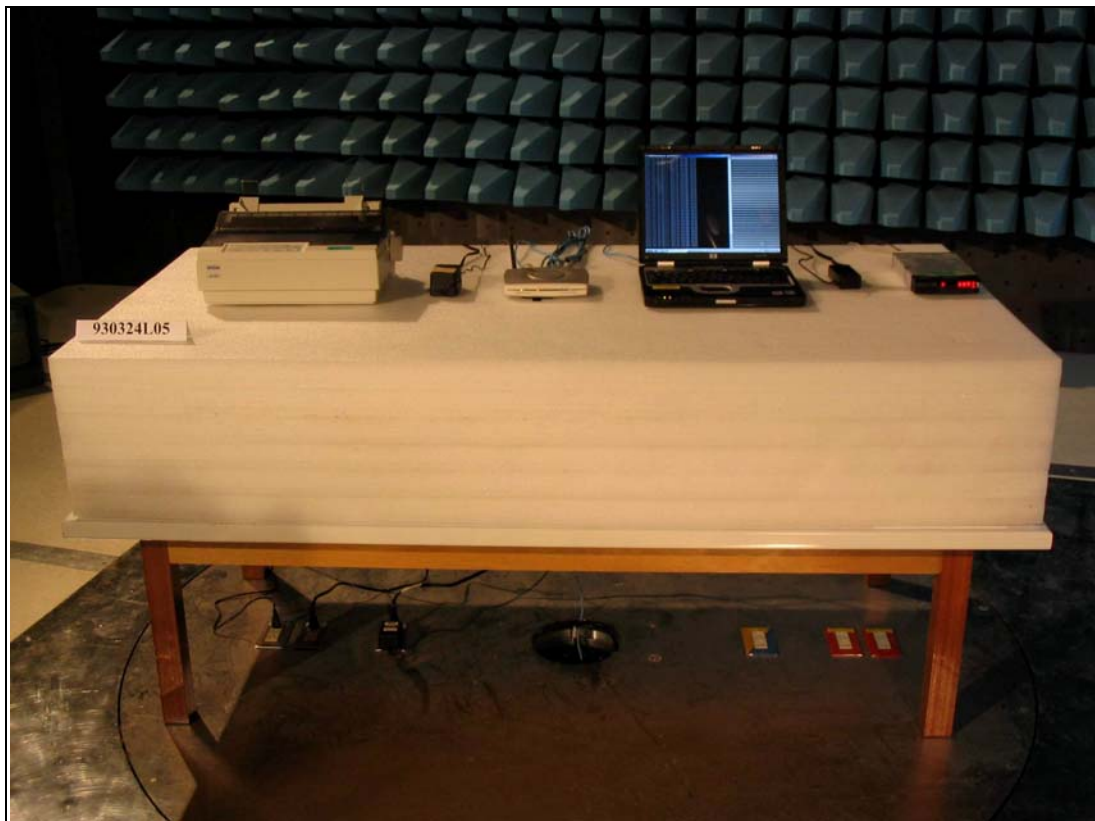
4.7.2 ANTENNA CONNECTED CONSTRUCTION

The antenna used in this product is Dipole Antenna without antenna connector. And the maximum Gain of this antenna is only 2dBi.

5 PHOTOGRAPHS OF THE TEST CONFIGURATION CONDUCTED EMISSION TEST



RADIATED EMISSION TEST





6 INFORMATION ON THE TESTING LABORATORIES

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

USA	FCC, NVLAP, UL
Germany	TUV Rheinland
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 Lab:

Tel: 886-3-3183232

Fax: 886-3-3185050

Linko RF & Telecom Lab.

Tel: 886-3-3270910

Fax: 886-3-3270892

Email: service@mail.adt.com.tw

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