



## 5.6 FREQUENCY STABILITY

### 5.6.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

The frequency tolerance of the carrier signal shall be maintained within +/- 0.02% of the operating frequency over a temperature variation of -30 degrees to 50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C.

### 5.6.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
ANRITSU SPECTRUM ANALYZER	MS2667C	M10281	Aug. 12, 2005
WIT STANDARD TEMPERATURE AND HUMIDITY CHAMBER	TH-4S-C	W901030	Aug. 12, 2005

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

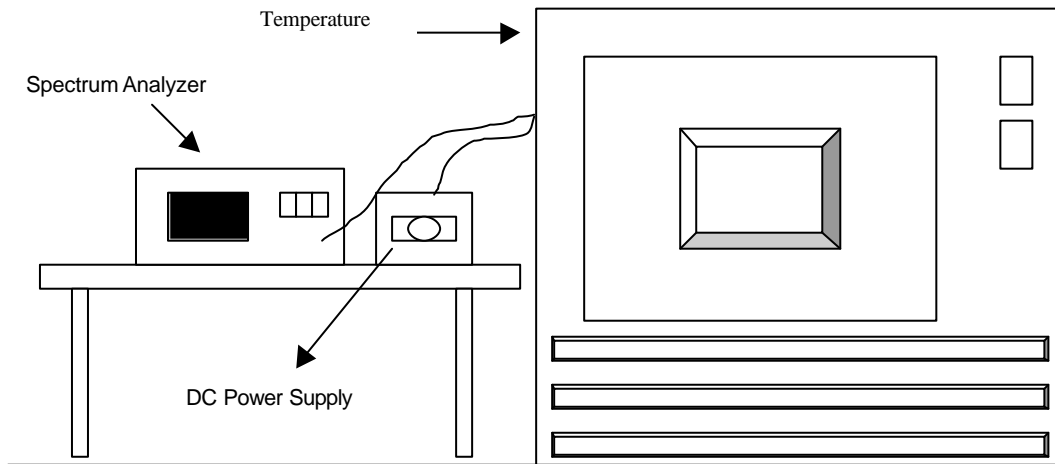
### 5.6.3 TEST PROCEDURE

1. The EUT was placed inside the environmental test chamber and powered by nominal DC voltage.
2. Turn the EUT on and couple its output to a spectrum analyzer.
3. Turn the EUT off and set the chamber to the highest temperature specified.
4. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 minutes.
5. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.
6. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

### 5.6.4 DEVIATION FROM TEST STANDARD

No deviation

### 5.6.5 TEST SETUP



### 5.6.6 EUT OPERATING CONDITION

Same as Item 4.1.6



5.6.7 TEST RESULTS

		Operating frequency: 5320MHz				Limit : ± 0.01%	
Temp. ( )	Power supply (Vac)	2 minute		5 minute		10 minute	
		(MHz)	(%)	(MHz)	(%)	(MHz)	(%)
50	102	5319.9511	-0.0009192	5319.9988	-0.0000226	5320.0003	0.0000056
	120	5319.9611	-0.0007312	5319.9988	-0.0000226	5320.0003	0.0000056
	138	5319.9982	-0.0000338	5319.9988	-0.0000226	5320.0003	0.0000056
40	102	5319.9772	-0.0004286	5319.9787	-0.0004004	5319.9782	-0.0004098
	120	5319.9777	-0.0004192	5319.9782	-0.0004098	5319.9794	-0.0003872
	138	5319.9782	-0.0004098	5319.9784	-0.0004060	5319.9794	-0.0003872
30	102	5319.9734	-0.0005000	5319.9734	-0.0005000	5319.9734	-0.0005000
	120	5319.9734	-0.0005000	5319.9736	-0.0004962	5319.9736	-0.0004962
	138	5319.9734	-0.0005000	5319.9734	-0.0005000	5319.9736	-0.0004962
20	102	5319.9740	-0.0004887	5319.9739	-0.0004906	5319.9739	-0.0004906
	120	5319.9739	-0.0004906	5319.9739	-0.0004906	5319.9739	-0.0004906
	138	5319.9739	-0.0004906	5319.9739	-0.0004906	5319.9739	-0.0004906
10	102	5319.9762	-0.0004474	5319.9768	-0.0004361	5319.9770	-0.0004323
	120	5319.9762	-0.0004474	5319.9770	-0.0004323	5319.9770	-0.0004323
	138	5319.9762	-0.0004474	5319.9770	-0.0004323	5319.9770	-0.0004323
0	102	5319.9867	-0.0002500	5319.9876	-0.0002331	5319.9878	-0.0002293
	120	5319.9868	-0.0002481	5319.9876	-0.0002331	5319.9748	-0.0004737
	138	5319.9870	-0.0002444	5319.9878	-0.0002293	5319.9883	-0.0002199
-10	102	5319.9983	-0.0000320	5319.9991	-0.0000169	5319.9998	-0.0000038
	120	5319.9986	-0.0000263	5319.9962	-0.0000714	5320.0001	0.0000019
	138	5319.9992	-0.0000150	5319.9998	-0.0000038	5320.0005	0.0000094
-20	102	5320.0093	0.0001748	5320.0097	0.0001823	5320.0097	0.0001823
	120	5320.0095	0.0001786	5320.0097	0.0001823	5320.0097	0.0001823
	138	5320.0097	0.0001823	5320.0095	0.0001786	5320.0100	0.0001880
-30	102	5320.0156	0.0002932	5320.0156	0.0002932	5320.0156	0.0002932
	120	5320.0155	0.0002914	5320.0154	0.0002895	5320.0159	0.0002989
	138	5320.0156	0.0002932	5320.0156	0.0002932	5320.0159	0.0002989



## 5.7 BAND EDGES MEASUREMENT

### 5.7.1 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
SPECTRUM ANALYZER	FSEK30	100049	Aug. 12, 2005

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

### 5.7.2 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 with suitable frequency span including 100 MHz bandwidth from band edge. The band edges was measured and recorded.

### 5.7.3 EUT OPERATING CONDITION

The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.

### 5.7.4 TEST RESULTS

For signals in the restricted bands above and below the 5.15 to 5.35GHz allocated band a measurement was made of the amplitude of the spurious emissions with respect to the intentional signals. The relative amplitude, in dBc, was applied to the average and peak filed strength of the intentional signal made on the OATS to calculate the field strength of the unintentional signals.

The spectrum plots (Peak RBW=VBW=1MHz; Average RBW=1MHz, VBW=10Hz) are attached on the following pages.

**Normal Mode:**

## Channel 1 (5180MHz)

The band edge emission plot on the page 150 shows 46.43dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 1 is 110.45dBuV/m (Peak), so the maximum field strength in restrict band is  $110.45-46.43=64.02$ dBuV/m which is under 74dBuV/m limit.

## Channel 1 (5180MHz)

The band edge emission plot on the page 151 shows 50.46Bc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 1 is 100.90dBuV/m (Average), so the maximum field strength in restrict band is  $100.90-50.46=50.44$ dBuV/m which is under 54dBuV/m limit.

## Channel 8 (5320MHz)

The band edge emission plot on the page 153 shows 49.15dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 8 is 100.49BuV/m (Peak), so the maximum field strength in restrict band is  $100.49-49.15=51.34$ dBuV/m which is under 74dBuV/m limit.

## Channel 8 (5320MHz)

The band edge emission plot on the page 154 shows 51.52dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 8 is 110.01BuV/m (Average), so the maximum field strength in restrict band is  $110.01-51.52=58.49$ dBuV/m which is under 54dBuV/m limit.

**Turbo Mode :**

## Channel 1 (5210MHz)

The band edge emission plot on the page 156 shows 42.09dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 1 is 108.42dBuV/m (Peak), so the maximum field strength in restrict band is  $108.42-42.09=66.33$ dBuV/m which is under 74dBuV/m limit.

## Channel 1 (5210MHz)

The band edge emission plot on the page 157 shows 49.98dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 1 is 97.81dBuV/m (Average), so the maximum field strength in restrict band is  $97.81-49.98=47.83$ dBuV/m which is under 54dBuV/m limit.

## Channel 3 (5290MHz)

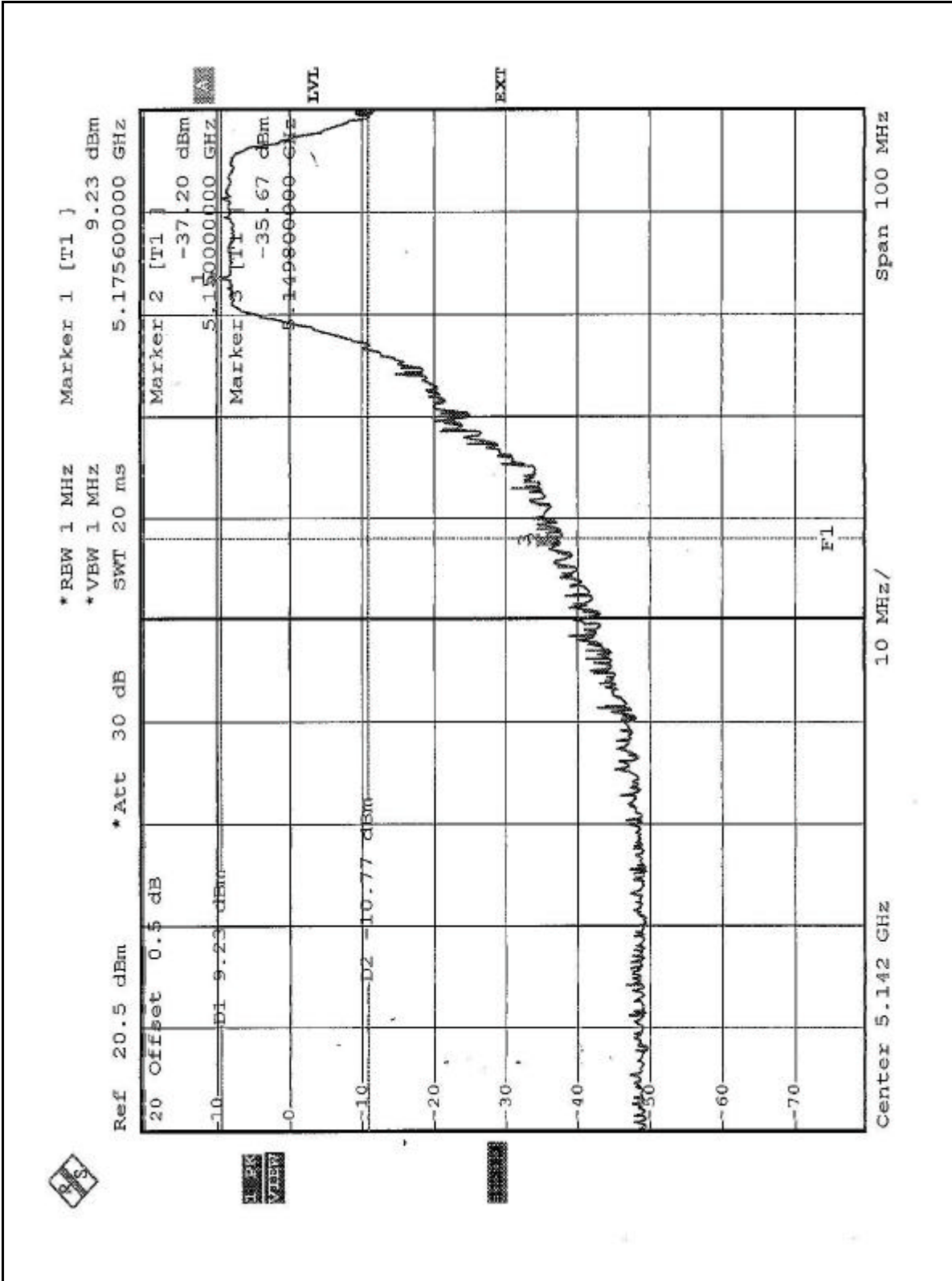
The band edge emission plot on the page 159 shows 47.58dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 3 is 98.51dBuV/m (Peak), so the maximum field strength in restrict band is  $98.51-47.58=50.93$ dBuV/m which is under 74dBuV/m limit.

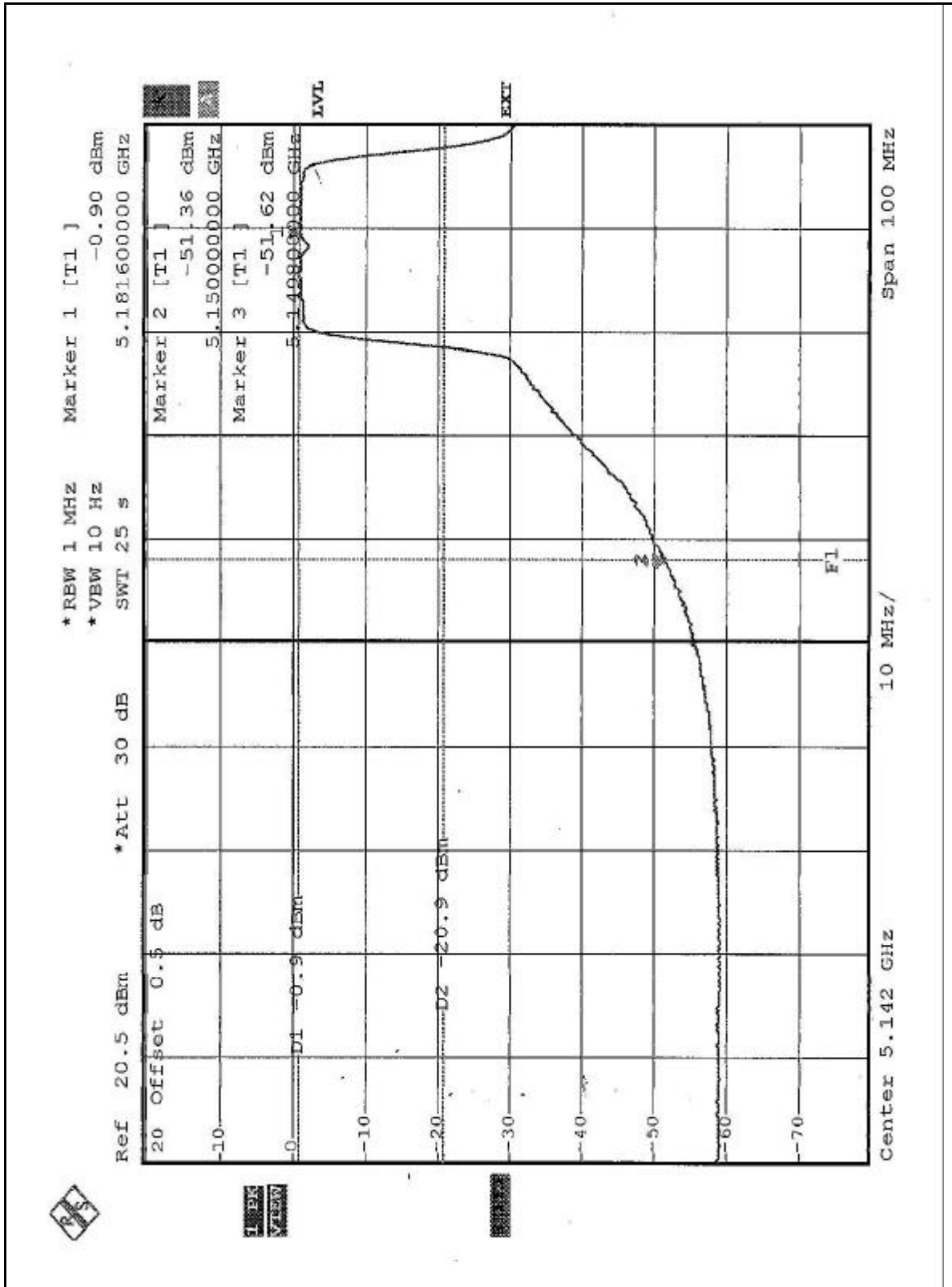
## Channel 3 (5290MHz)

The band edge emission plot on the page 160 shows 53.59dBc between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 3 is 107.57dBuV/m (Average), so the maximum field strength in restrict band is  $107.57-53.59=53.98$ dBuV/m which is under 54dBuV/m limit.

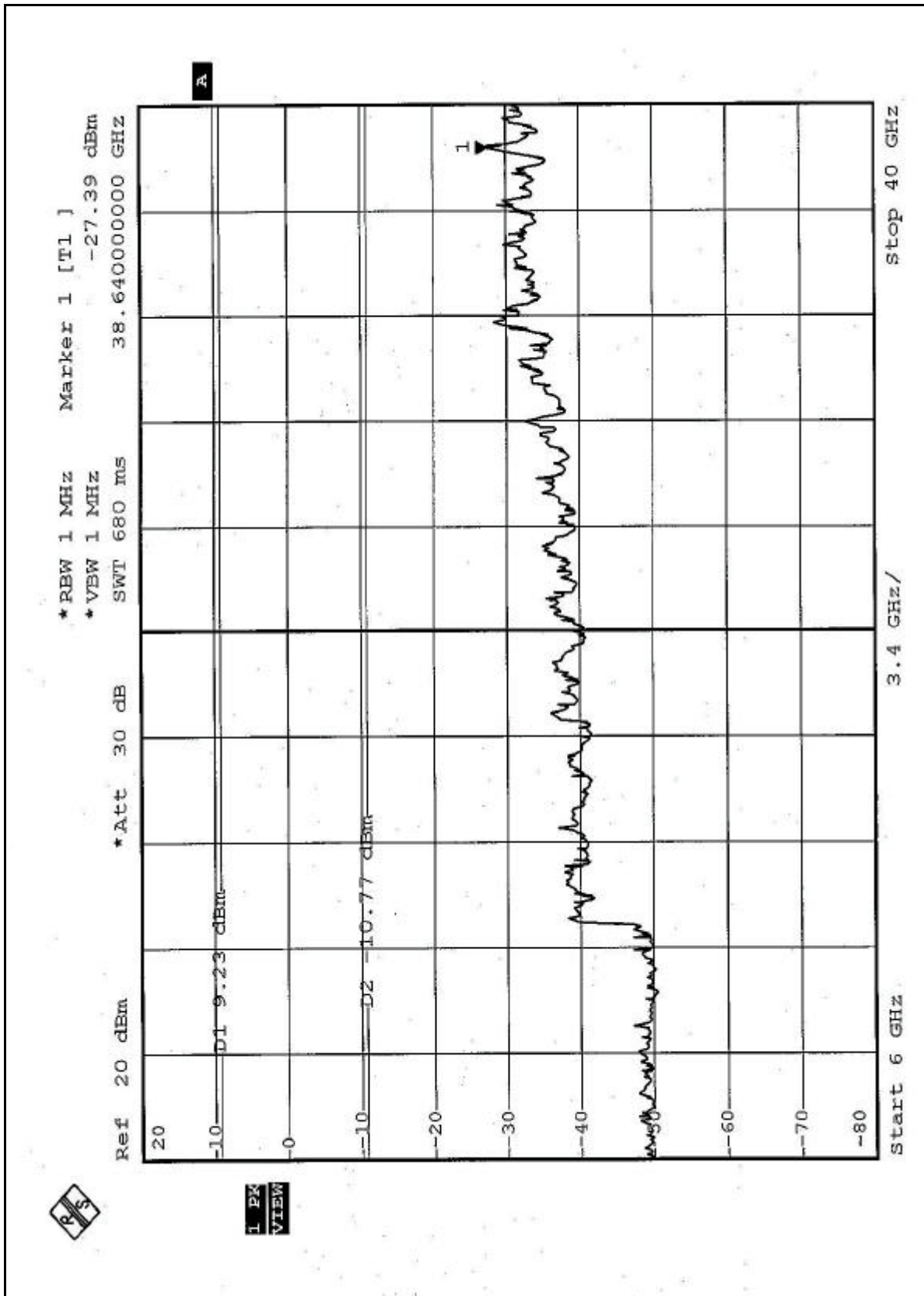


Normal Mode (CH1)



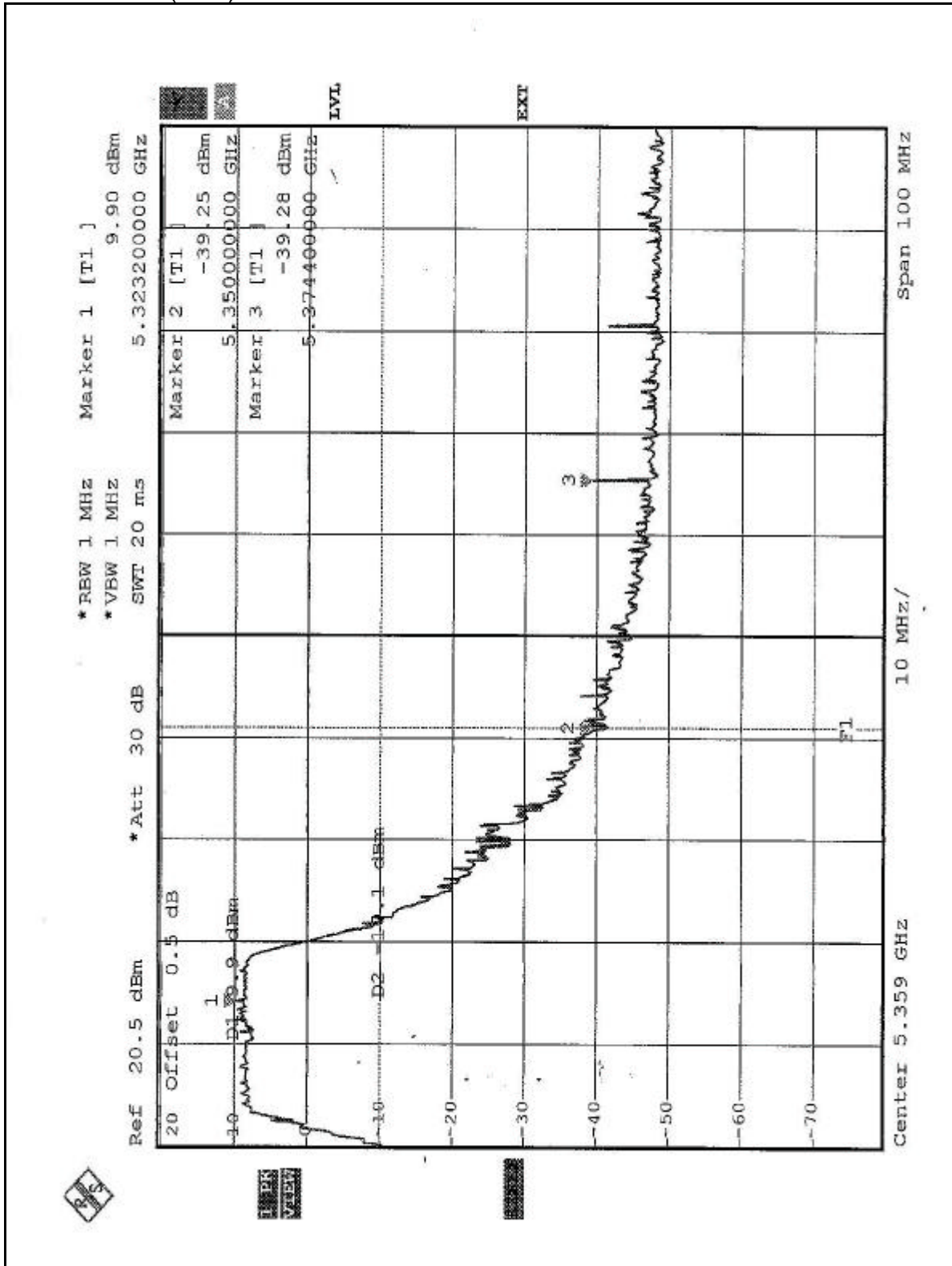


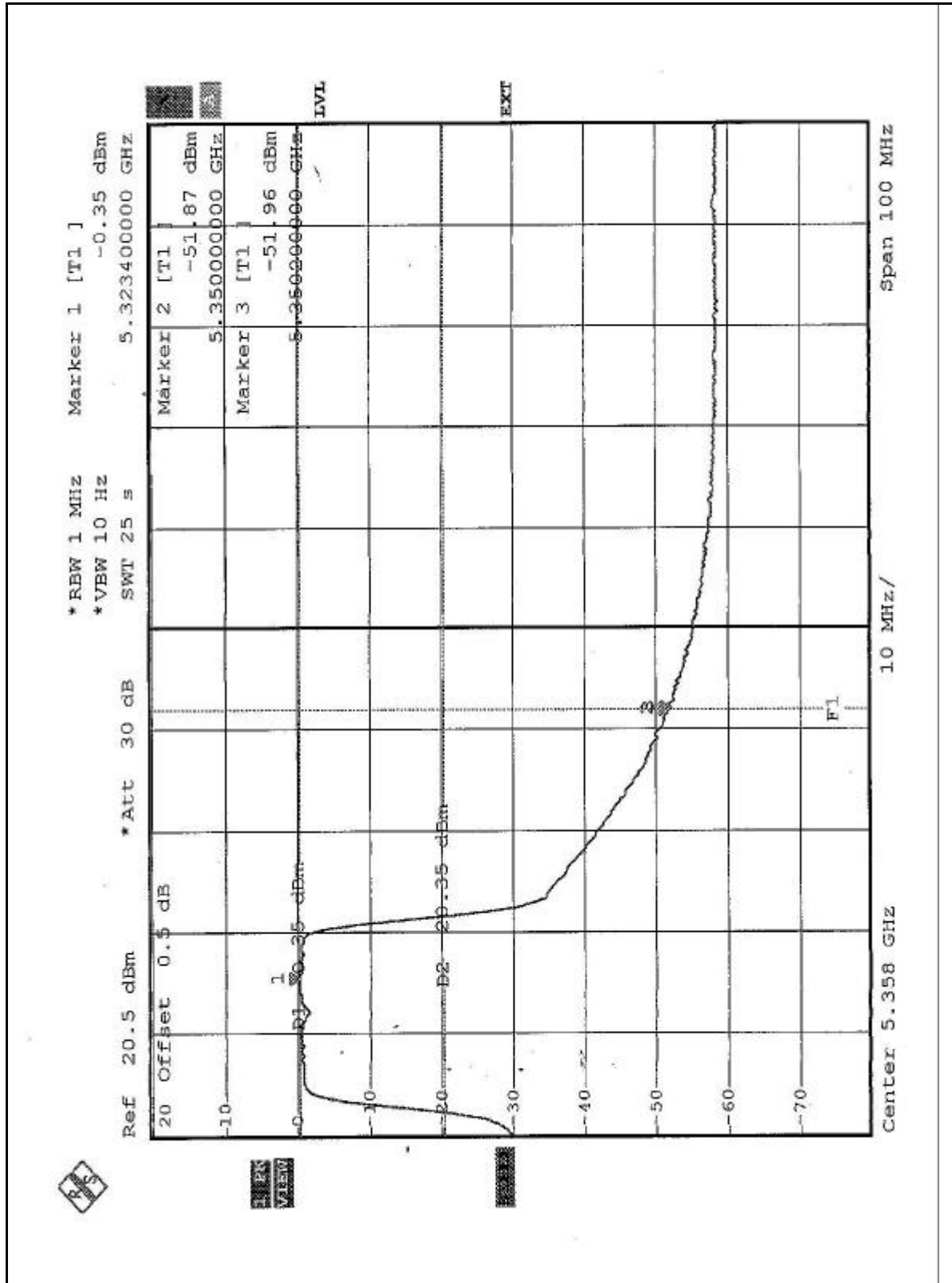


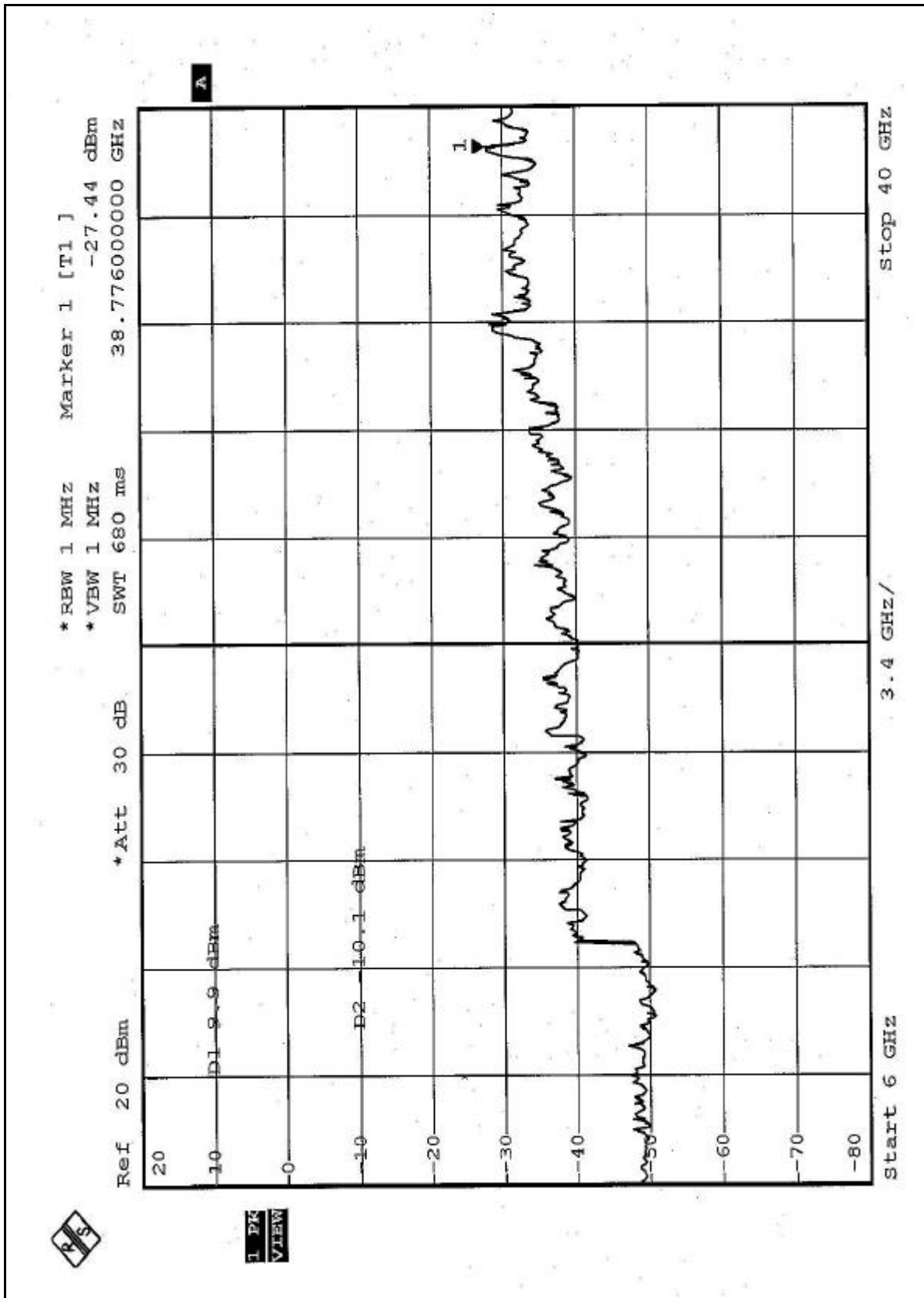




Normal Mode (CH8)

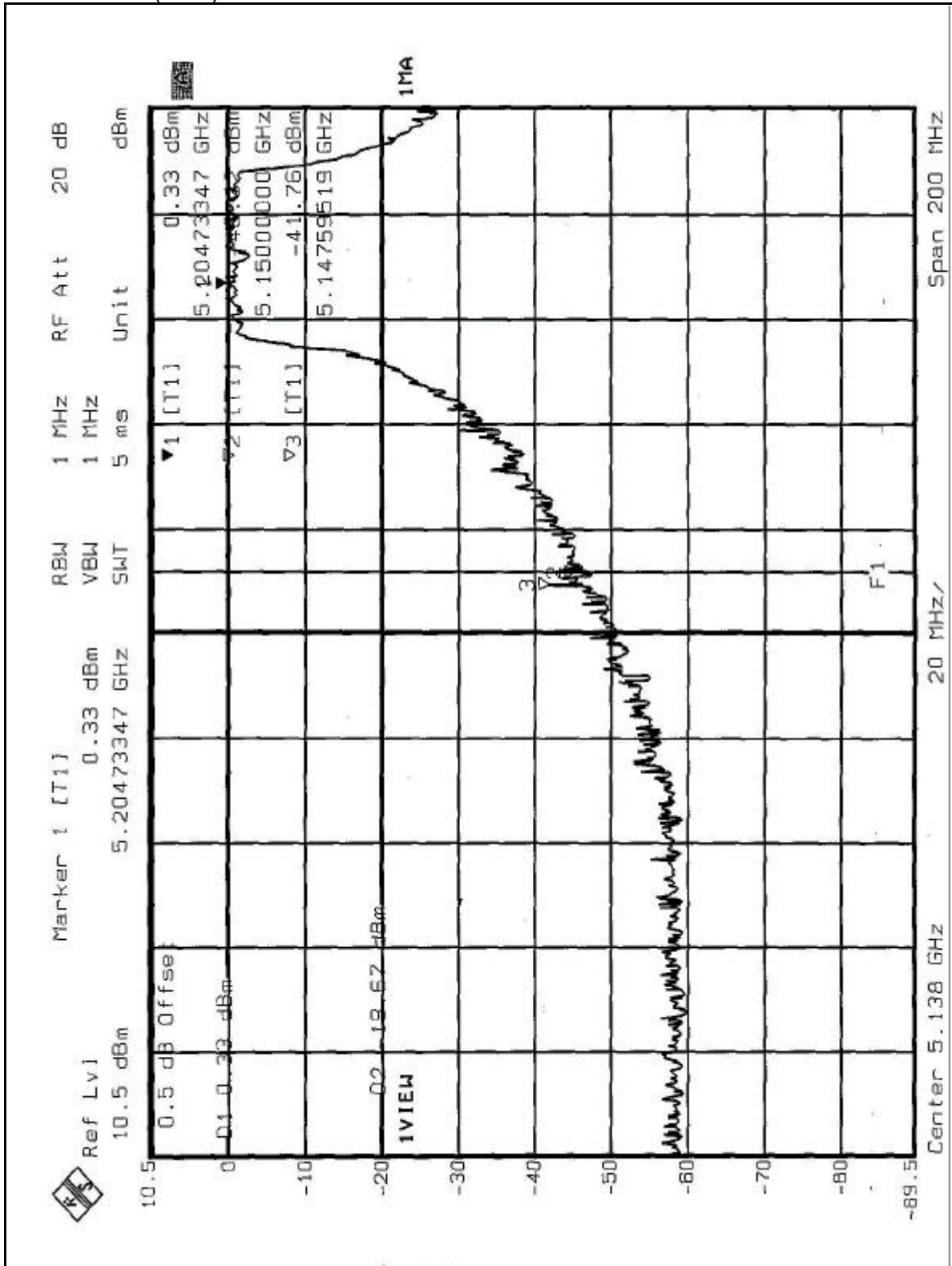


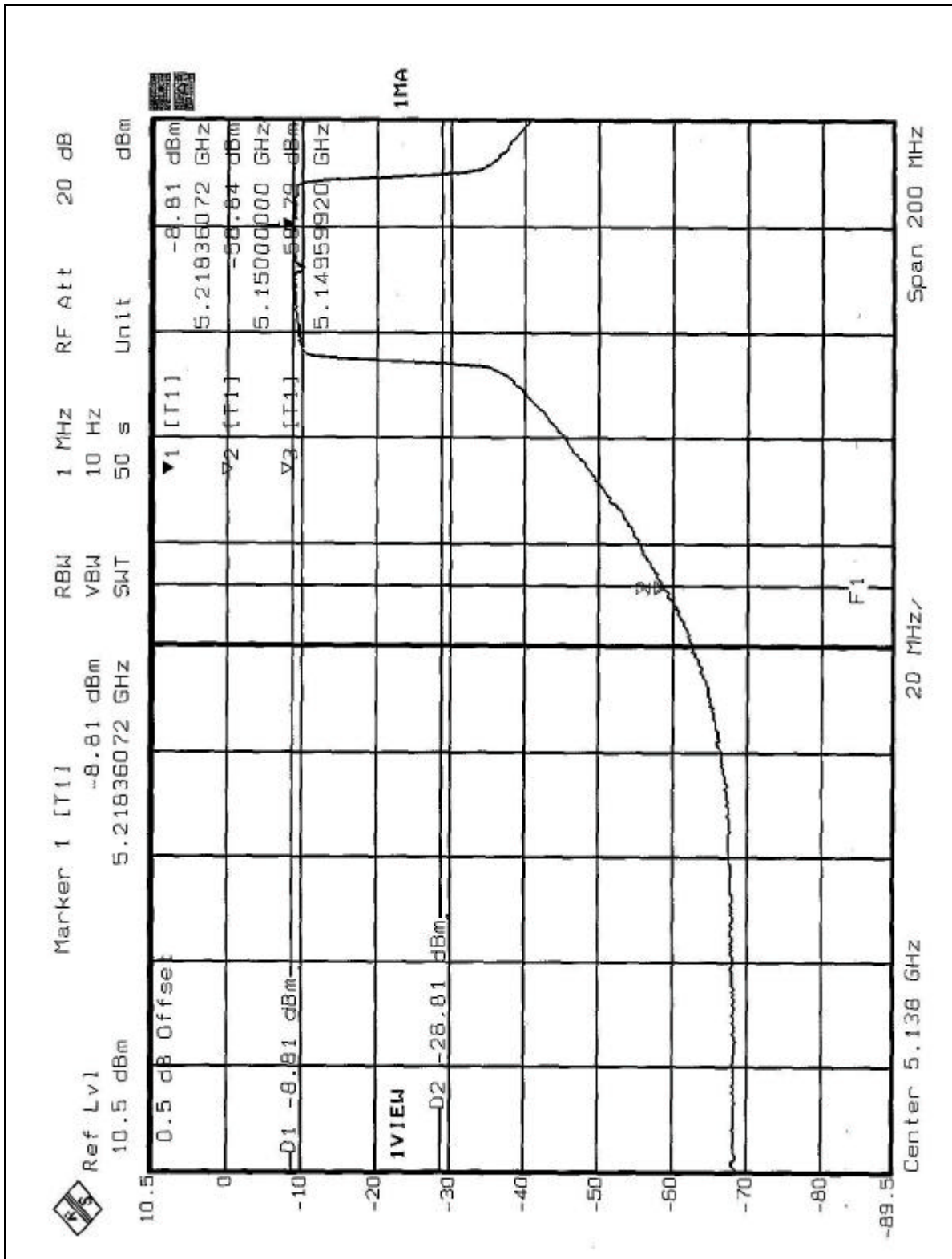


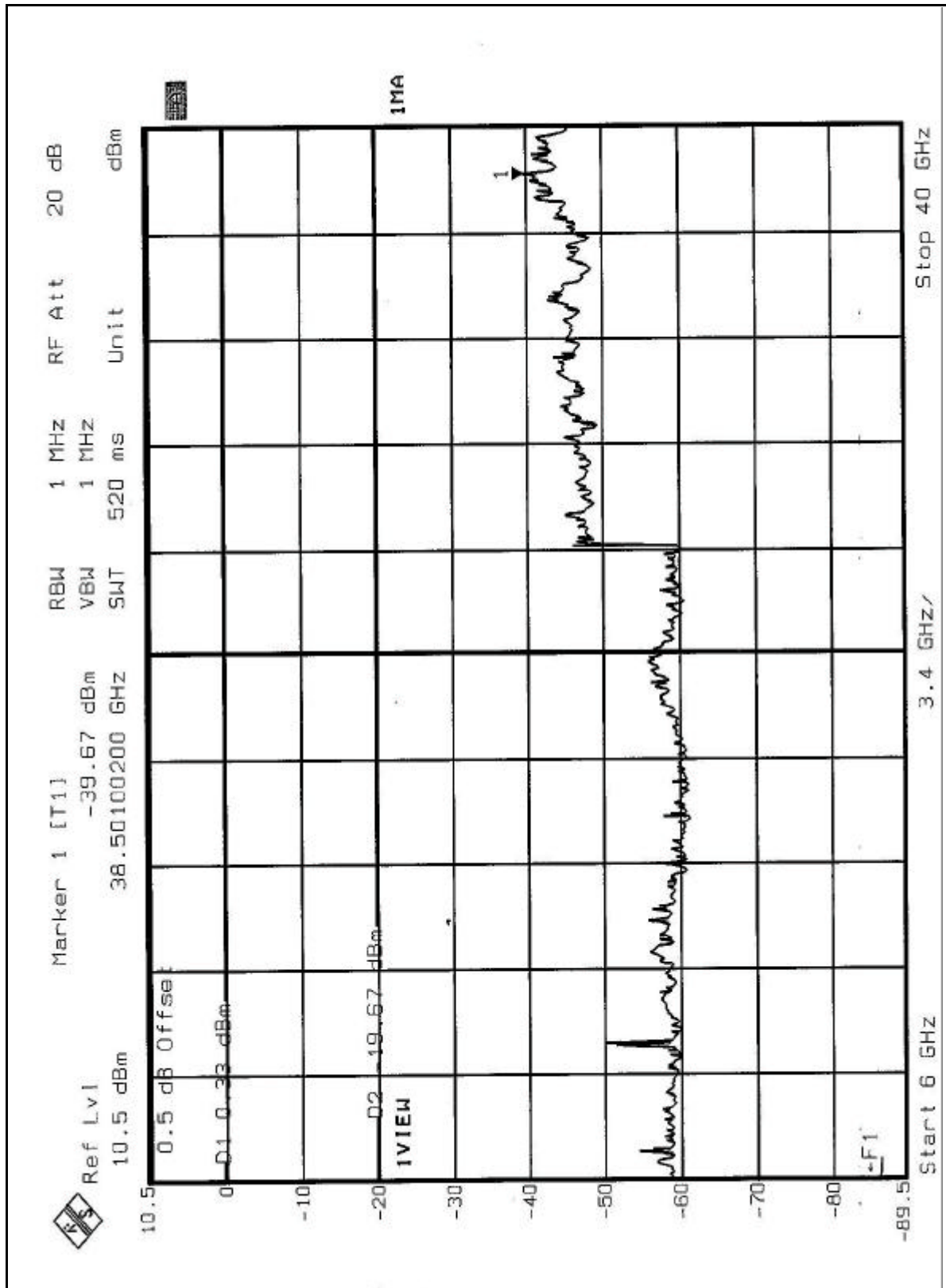




Turbo Mode (CH1)

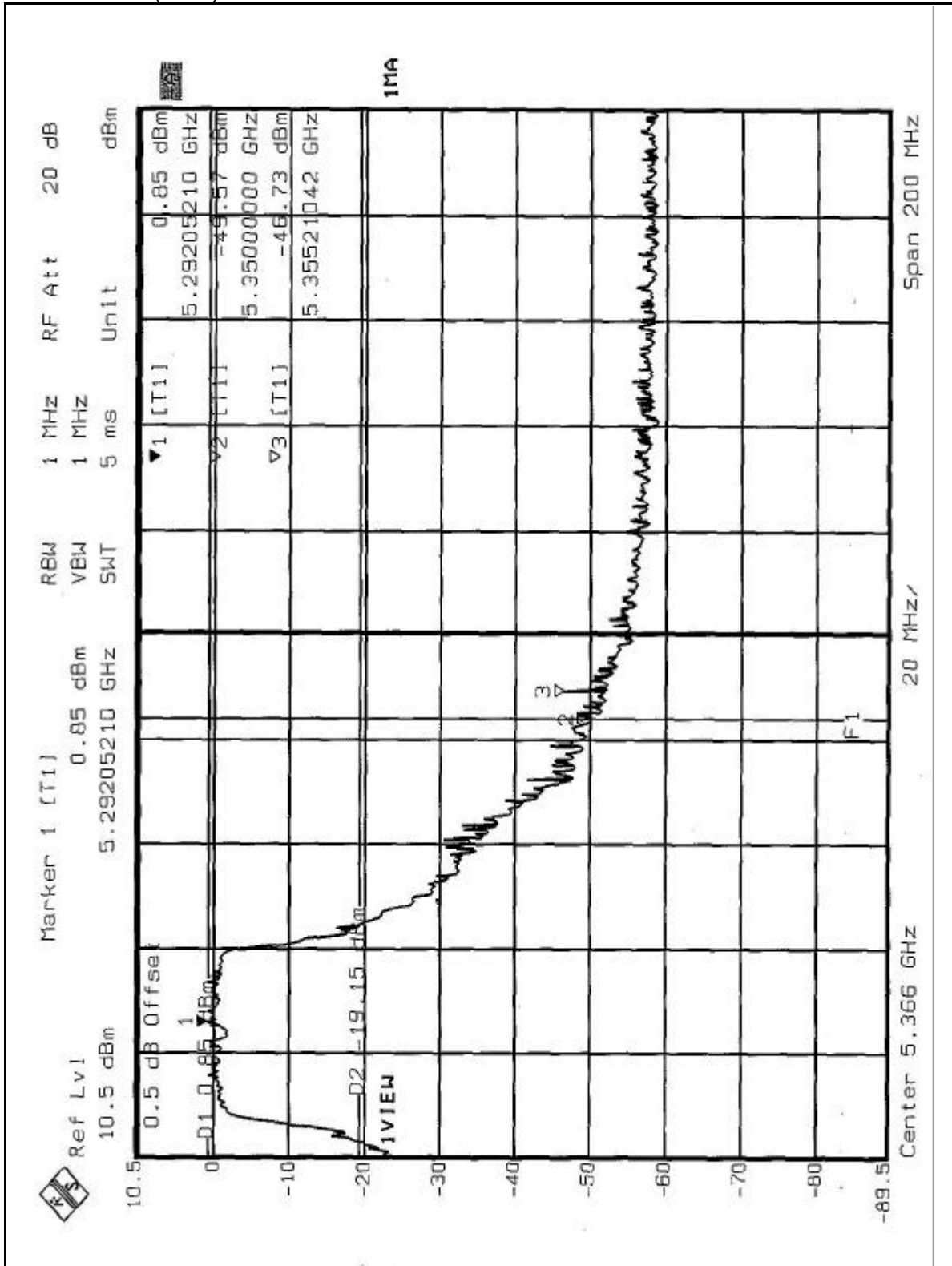




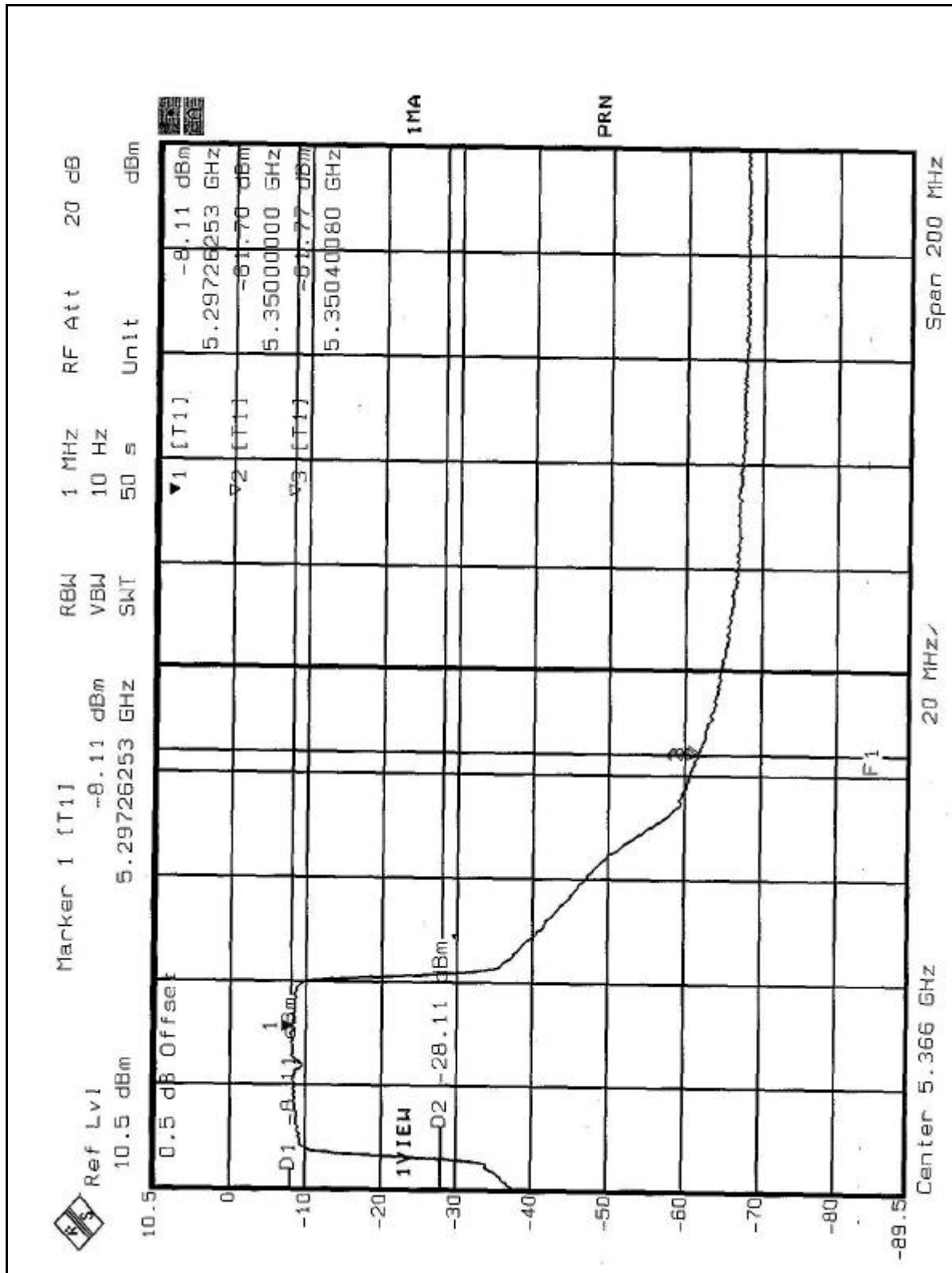


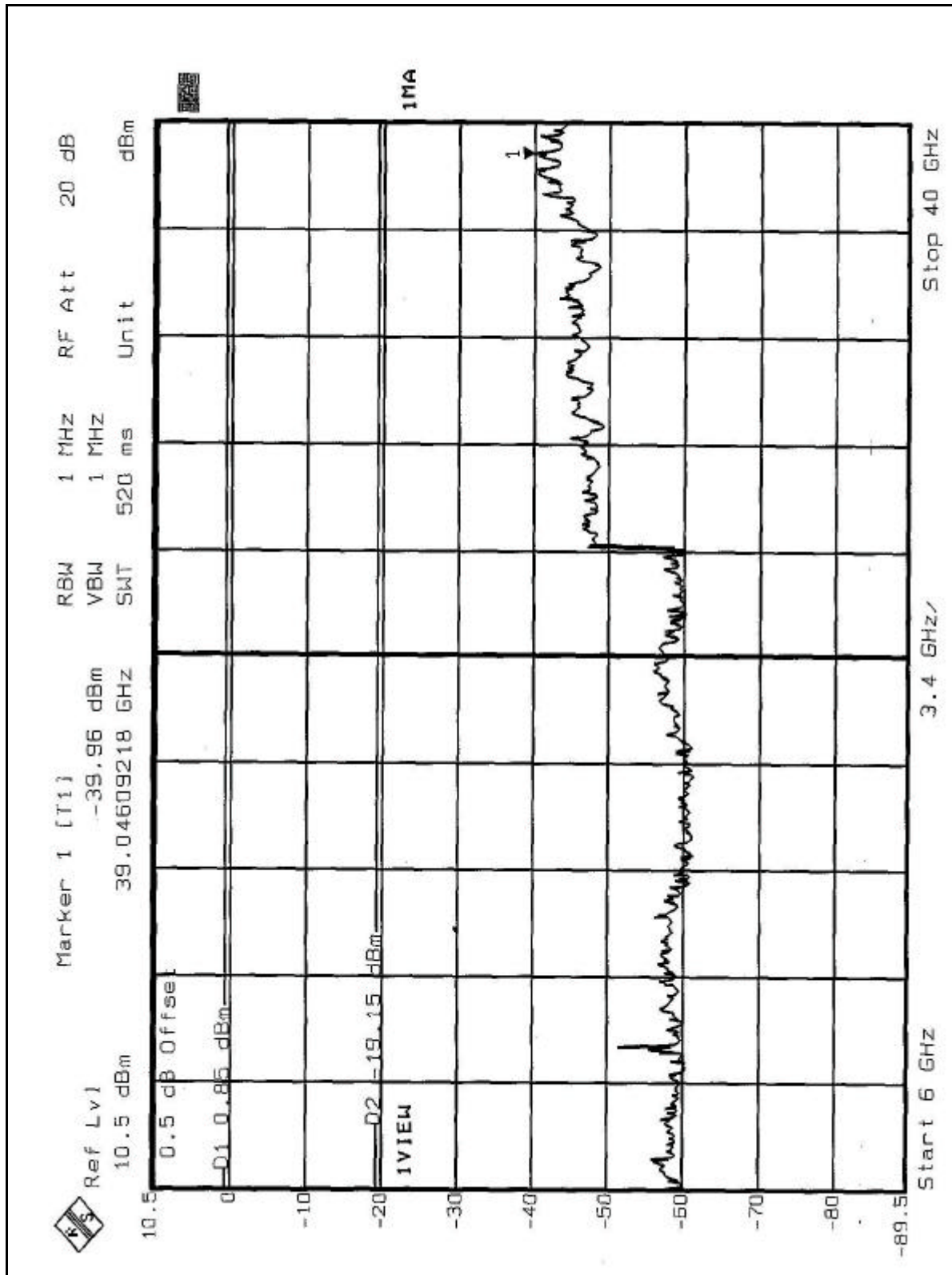


Turbo Mode (CH3)











## **5.8 ANTENNA REQUIREMENT**

### **5.8.1 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 15.407(a), 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.

### **5.8.2 ANTENNA CONNECTED CONSTRUCTION**

The antenna used in this product is Chip & Dipole antenna without antenna connector. The maximum Gain of the antenna is 3.4dBi.



## FOR FREQUENCY 5.725~5.850GHz

### 5.9 CONDUCTED EMISSION MEASUREMENT

#### 5.9.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dB $\mu$ 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.

#### 5.9.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
Test Receiver ROHDE & SCHWARZ	ESCS30	100291	Nov. 16, 2005
RF signal cable Woken	5D-FB	Cable-HYC01-01	Mar. 02, 2005
LISN ROHDE & SCHWARZ	ESH3-Z5	100312	Mar. 03, 2005
LISN ROHDE & SCHWARZ	ESH2-Z5	100104	Mar. 02, 2005
Software ADT	ADT_Cond_V3	NA	NA

- NOTE:**
1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
  2. The test was performed in HwaYa Shielded Room 1.
  3. The VCCI Site Registration No. is C-2040.



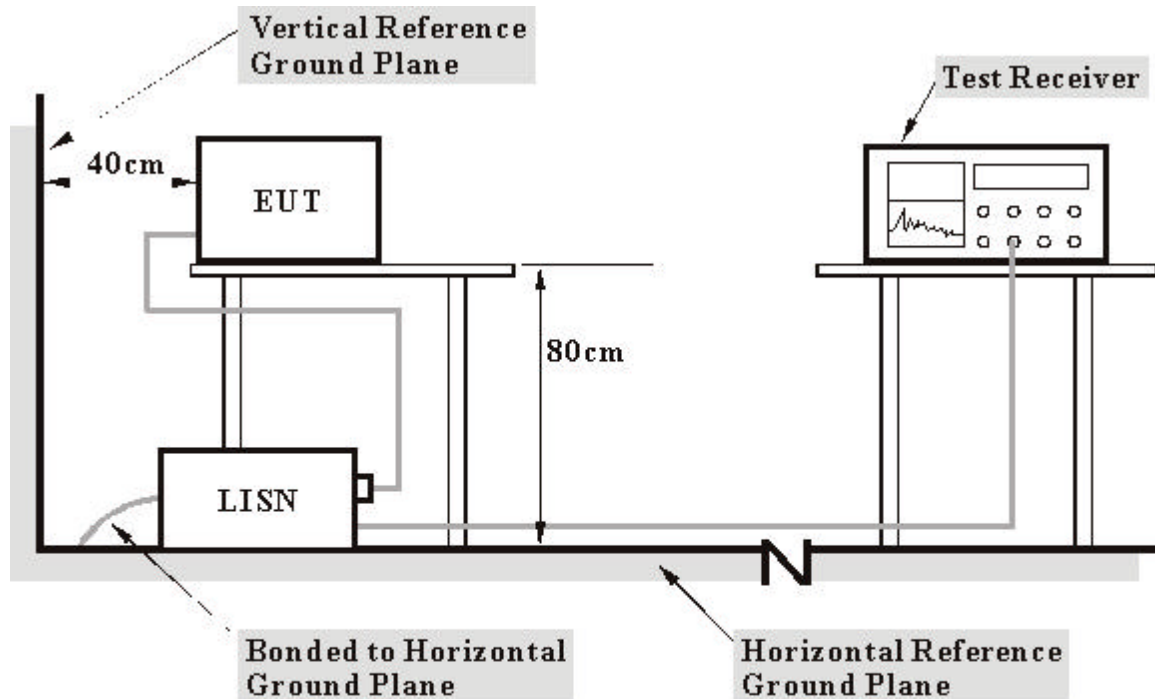
### 5.9.3 TEST PROCEDURES

- d. 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.
- e. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- f. The frequency range from 150kHz to 30MHz was searched. Emission levels under ( Limit - 20dB) was not recorded.

### 5.9.4 DEVIATION FROM TEST STANDARD

No deviation

### 5.9.5 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.

### 5.9.6 EUT OPERATING CONDITIONS

Same as 4.1.6

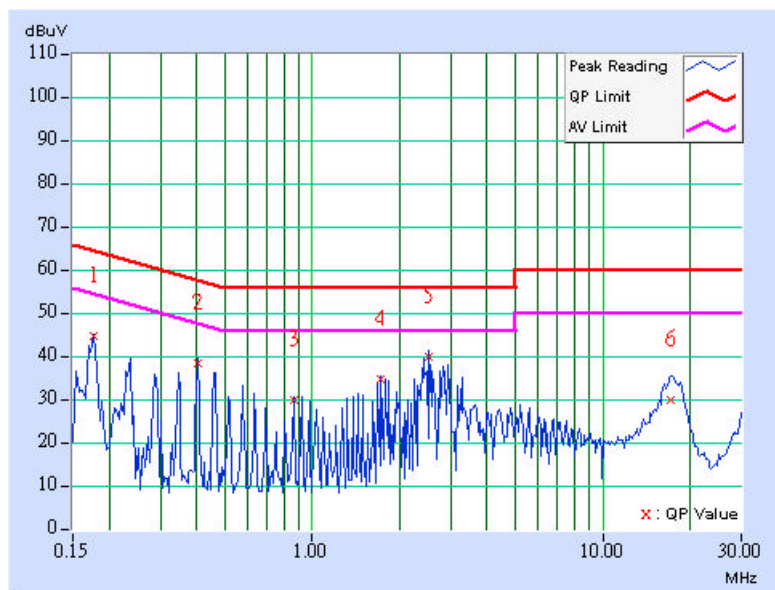


5.9.7 TEST RESULTS

<b>EUT</b>	Wireless AG Gaming Adapter	<b>MODEL</b>	DGL-3420
		<b>6dB BANDWIDTH</b>	9 kHz
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>PHASE</b>	Line (L)
<b>ENVIRONMENTAL CONDITIONS</b>	24deg. C, 64%RH, 991hPa	<b>TESTED BY:</b> Leo Hung	

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
	1	0.177	0.11	44.04	-	44.15	-	64.61	54.61	-20.46
2	0.404	0.13	37.51	-	37.64	-	57.77	47.77	-20.14	-
3	0.865	0.14	29.21	-	29.35	-	56.00	46.00	-26.65	-
4	1.727	0.16	33.99	-	34.15	-	56.00	46.00	-21.85	-
5	2.531	0.17	39.01	-	39.18	-	56.00	46.00	-16.82	-
6	17.049	0.88	29.01	-	29.89	-	60.00	50.00	-30.11	-

- 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.

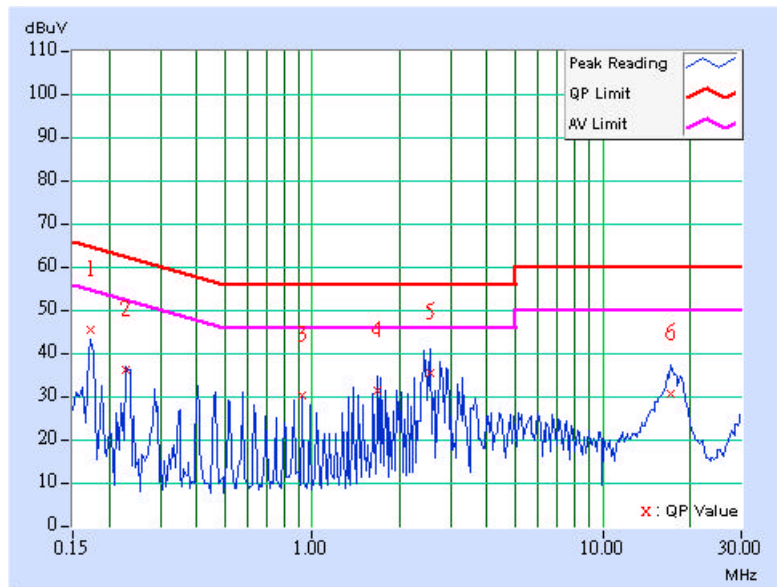




<b>EUT</b>	Wireless AG Gaming Adapter	<b>MODEL</b>	DGL-3420
		<b>6dB BANDWIDTH</b>	9 kHz
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>PHASE</b>	Neutral (N)
<b>ENVIRONMENTAL CONDITIONS</b>	24deg. C, 64%RH, 991hPa	<b>TESTED BY:</b> Leo Hung	

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
			1	0.173	0.10	44.74	-	44.84	-	64.79
2	0.228	0.11	35.71	-	35.82	-	62.52	52.52	-26.70	-
3	0.923	0.14	29.65	-	29.79	-	56.00	46.00	-26.21	-
4	1.672	0.16	30.74	-	30.90	-	56.00	46.00	-25.10	-
5	2.535	0.17	34.95	-	35.12	-	56.00	46.00	-20.88	-
6	17.086	0.67	30.09	-	30.76	-	60.00	50.00	-29.24	-

- 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.







## 5.10 RADIATED EMISSION MEASUREMENT

### 5.10.1 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:

4. The lower limit shall apply at the transition frequencies.
5. Emission level (dBuV/m) = 20 log Emission level (uV/m).
6. 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.



## 5.10.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
Test Receiver ROHDE & SCHWARZ	ESIB7	100188	Jan. 13, 2005
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100039	Nov. 21, 2005
BILOG Antenna SCHWARZBECK	VULB9168	9168-157	Feb. 03, 2005
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-407	Feb. 03, 2005
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA 9170241	Feb. 23, 2005
Preamplifier Agilent	8449B	3008A01961	Nov. 09, 2005
Preamplifier Agilent	8447D	2944A10629	Nov. 09, 2005
RF signal cable HUBER+SUHNER	SUCOFLEX 104	218182/4	Mar. 04, 2005
RF signal cable HUBER+SUHNER	SUCOFLEX 104	218194/4	Mar. 04, 2005
Software ADT.	ADT_Radiated_V5.14	NA	NA
Antenna Tower ADT.	AT100	AT93021702	NA
Turn Table ADT.	TT100.	TT93021702	NA
Controller ADT.	SC100.	SC93021702	NA

- NOTE:**
1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
  2. The test was performed in HwaYa Chamber 1.
  3. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
  4. The IC Site Registration No. is IC4924-2.



### 5.10.3 TEST PROCEDURES

- g. 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.
- h. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- i. 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.
- j. 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.
- k. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- l. If the emission level of the EUT in peak mode was 10dB 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 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

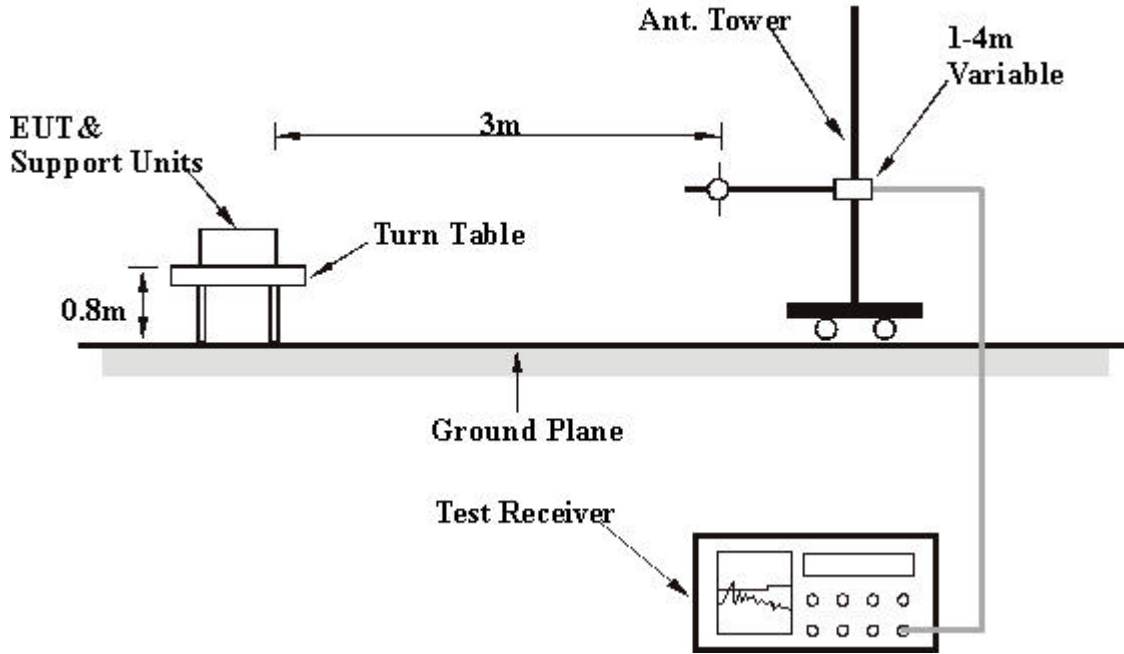
**NOTE:**

4. 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.
5. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz for Peak detection at frequency above 1GHz.
6. 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.

### 5.10.4 DEVIATION FROM TEST STANDARD

No deviation

### 5.10.5 TEST SETUP



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

### 5.10.6 EUT OPERATING CONDITIONS

Same as 4.1.6



## 5.10.7 TEST RESULTS

<b>EUT</b>	Wireless AG Gaming Adapter	<b>MODEL</b>	DGL-3420
<b>CHANNEL</b>	Channel 5	<b>FREQUENCY RANGE</b>	Below 1000MHz
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>DETECTOR FUNCTION</b>	Quasi-Peak
<b>ENVIRONMENTAL CONDITIONS</b>	26deg. C, 62%RH, 991hPa	<b>TESTED BY:</b> 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	45.55	29.95 QP	40.00	-10.05	2.00 H	205	14.71	15.23
2	86.37	31.46 QP	40.00	-8.54	2.00 H	133	21.34	10.12
3	146.63	35.83 QP	43.50	-7.67	2.00 H	43	21.25	14.58
4	249.66	35.68 QP	46.00	-10.32	1.00 H	46	22.46	13.22
5	360.46	30.86 QP	46.00	-15.14	1.00 H	295	14.98	15.88
6	449.88	35.15 QP	46.00	-10.85	2.00 H	10	17.08	18.07
7	500.42	35.55 QP	46.00	-10.45	1.50 H	301	16.82	18.74
8	539.30	37.73 QP	46.00	-8.27	1.50 H	25	18.25	19.48
9	630.66	38.64 QP	46.00	-7.36	1.50 H	205	17.21	21.42
10	720.08	38.95 QP	46.00	-7.05	1.00 H	310	16.16	22.79
11	751.18	42.12 QP	46.00	-3.88	1.00 H	295	18.58	23.54
12	875.59	41.32 QP	46.00	-4.68	1.00 H	298	16.66	24.66

**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	<b>46.07</b>	<b>38.24 QP</b>	<b>40.00</b>	<b>-1.76</b>	<b>1.00 V</b>	<b>190</b>	<b>23.07</b>	<b>15.17</b>
2	85.54	37.25 QP	40.00	-2.75	1.51 V	29	27.15	10.10
3	127.19	35.10 QP	43.50	-8.40	1.00 V	343	21.57	13.53
4	146.63	33.24 QP	43.50	-10.26	1.00 V	139	18.67	14.58
5	249.66	30.86 QP	46.00	-15.14	1.50 V	355	17.65	13.22
6	449.88	35.60 QP	46.00	-10.40	1.00 V	91	17.53	18.07
7	500.42	36.39 QP	46.00	-9.61	1.00 V	325	17.65	18.74
8	539.30	35.05 QP	46.00	-10.95	1.00 V	268	15.57	19.48
9	624.83	37.96 QP	46.00	-8.04	1.50 V	331	16.61	21.34
10	720.08	38.38 QP	46.00	-7.62	1.50 V	70	15.59	22.79
11	751.18	41.09 QP	46.00	-4.91	2.00 V	352	17.55	23.54
12	875.59	41.32 QP	46.00	-4.68	1.00 V	322	16.66	24.66

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



<b>EUT</b>	Wireless AG Gaming Adapter	<b>MODEL</b>	DGL-3420
<b>MODE</b>	Normal Mode	<b>CHANNEL</b>	9
<b>FREQUENCY RANGE</b>	1 ~ 40 GHz	<b>DETECTOR FUNCTION</b>	Peak(PK) Average (AV)
<b>ENVIRONMENTAL CONDITIONS</b>	26deg. C, 62%RH, 991hPa	<b>INPUT POWER (SYSTEM)</b>	120Vac, 60Hz
<b>TESTED BY</b>	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	#3830.00	49.71 PK	74.00	-24.29	1.00 H	324	13.37	36.34
1	#3830.00	39.07 AV	54.00	-14.93	1.00 H	324	2.73	36.34
2	*5745.00	101.72 PK			1.26 H	53	60.82	40.90
2	*5745.00	92.21 AV			1.26 H	53	51.31	40.90
3	#11490.00	58.06 PK	74.00	-15.94	1.00 H	161	10.68	47.38
3	#11490.00	45.17 AV	54.00	-8.83	1.00 H	161	-2.21	47.38

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	#3830.00	48.89 PK	74.00	-25.11	1.07 V	298	12.55	36.34
1	#3830.00	38.90 AV	54.00	-15.10	1.07 V	298	2.56	36.34
2	*5745.00	112.46 PK			1.08 V	1	71.56	40.90
2	*5745.00	102.92 AV			1.08 V	1	62.02	40.90
3	#11490.00	60.29 PK	74.00	-13.71	1.03 V	354	12.91	47.38
3	#11490.00	47.91 AV	54.00	-6.09	1.03 V	354	0.53	47.38

**NOTE:**

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



<b>EUT</b>	Wireless AG Gaming Adapter	<b>MODEL</b>	DGL-3420
<b>MODE</b>	Normal Mode	<b>CHANNEL</b>	11
<b>FREQUENCY RANGE</b>	1 ~ 40 GHz	<b>DETECTOR FUNCTION</b>	Peak(PK) Average (AV)
<b>ENVIRONMENTAL CONDITIONS</b>	26deg. C, 62%RH, 991hPa	<b>INPUT POWER (SYSTEM)</b>	120Vac, 60Hz
<b>TESTED BY</b>	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	#3856.00	49.73 PK	74.00	-24.27	1.27 H	318	13.30	36.43
1	#3856.00	37.65 AV	54.00	-16.35	1.27 H	318	1.22	34.43
2	*5785.00	102.92 PK			1.35 H	54	61.87	41.05
2	*5785.00	92.68 AV			1.35 H	54	51.63	41.05
3	#11570.00	59.02 PK	74.00	-14.98	1.25 H	244	11.55	47.47
3	#11570.00	46.50 AV	54.00	-7.50	1.25 H	244	-0.97	47.47

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	#3856.00	50.47 PK	74.00	-23.53	1.11 V	298	14.04	36.43
1	#3856.00	41.72 AV	54.00	-12.28	1.11 V	298	5.29	36.43
2	*5785.00	113.07 PK			1.08 V	357	72.02	41.05
2	*5785.00	103.28 AV			1.08 V	357	62.23	41.05
3	#11570.00	61.16 PK	74.00	-12.84	1.02 V	1	13.69	47.47
3	#11570.00	48.04 AV	54.00	-5.96	1.02 V	1	0.57	47.47

**NOTE:**

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



<b>EUT</b>	Wireless AG Gaming Adapter	<b>MODEL</b>	DGL-3420
<b>MODE</b>	Normal Mode	<b>CHANNEL</b>	13
<b>FREQUENCY RANGE</b>	1 ~ 40 GHz	<b>DETECTOR FUNCTION</b>	Peak(PK) Average (AV)
<b>ENVIRONMENTAL CONDITIONS</b>	26deg. C, 62%RH, 991hPa	<b>INPUT POWER (SYSTEM)</b>	120Vac, 60Hz
<b>TESTED BY</b>	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	#3883.00	49.69 PK	74.00	-24.31	1.30 H	199	13.17	36.52
1	#3883.00	38.52 AV	54.00	-15.48	1.30 H	199	2.00	36.52
2	*5825.00	100.31 PK			1.19 H	172	59.36	40.95
2	*5825.00	90.58 AV			1.19 H	172	49.63	40.95
3	#11650.00	61.56 PK	74.00	-12.44	1.26 H	309	13.84	47.72
3	#11650.00	47.63 AV	54.00	-6.37	1.26 H	309	-0.09	47.72

**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	#3883.00	52.07 PK	74.00	-21.93	1.10 V	298	15.55	36.52
1	#3883.00	42.88 AV	54.00	-11.12	1.10 V	298	6.36	36.52
2	*5825.00	111.35 PK			1.16 V	125	70.40	40.95
2	*5825.00	101.45 AV			1.16 V	125	60.50	40.95
3	#11650.00	62.18 PK	74.00	-11.82	1.14 V	345	14.46	47.72
3	#11650.00	48.91 AV	54.00	-5.09	1.14 V	345	1.19	47.72

**NOTE:**

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





<b>EUT</b>	Wireless AG Gaming Adapter	<b>MODEL</b>	DGL-3420
<b>MODE</b>	Turbo Mode	<b>CHANNEL</b>	4
<b>FREQUENCY RANGE</b>	1 ~ 40 GHz	<b>DETECTOR FUNCTION</b>	Peak(PK) Average (AV)
<b>ENVIRONMENTAL CONDITIONS</b>	25deg. C, 60%RH, 991hPa	<b>INPUT POWER (SYSTEM)</b>	120Vac, 60Hz
<b>TESTED BY</b>	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	#3840.00	45.40 PK	74.00	-28.60	1.16 H	188	9.03	36.38
1	#3840.00	35.36 AV	54.00	-18.64	1.16 H	188	-1.01	36.38
2	*5760.00	99.61 PK			1.30 H	43	58.65	40.96
2	*5760.00	90.77 AV			1.30 H	43	49.81	40.96
3	#11520.00	55.65 PK	74.00	-18.35	1.15 H	1	8.23	47.41
3	#11520.00	43.76 AV	54.00	-10.24	1.15 H	1	-3.66	47.41

#### 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	#3840.00	47.74 PK	74.00	-26.26	1.17 V	251	11.37	36.38
1	#3840.00	39.23 AV	54.00	-14.77	1.17 V	251	2.86	36.38
2	*5760.00	110.38 PK			1.07 V	116	69.42	40.96
2	*5760.00	100.96 AV			1.07 V	116	60.00	40.96
3	#5760.00	54.94 PK	74.00	-19.06	1.52 V	38	13.99	40.96
3	#5760.00	42.06 AV	54.00	-11.94	1.52 V	38	1.11	40.96
4	#7680.00	52.87 PK	74.00	-21.13	1.24 V	84	9.53	43.34
4	#7680.00	42.92 AV	54.00	-11.08	1.24 V	84	-0.42	43.34

#### NOTE:

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.
6. “#” The radiated frequency falling in the restricted band.
7. The limit value is defined as per 15.247



<b>EUT</b>	Wireless AG Gaming Adapter	<b>MODEL</b>	DGL-3420
<b>MODE</b>	Turbo Mode	<b>CHANNEL</b>	5
<b>FREQUENCY RANGE</b>	1 ~ 40 GHz	<b>DETECTOR FUNCTION</b>	Peak(PK) Average (AV)
<b>ENVIRONMENTAL CONDITIONS</b>	25deg. C, 60%RH, 991hPa	<b>INPUT POWER (SYSTEM)</b>	120Vac, 60Hz
<b>TESTED BY</b>	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	#3866.00	46.15 PK	74.00	-27.85	1.14 H	210	9.69	36.46
1	#3866.00	36.10 AV	54.00	-17.90	1.14 H	210	-0.36	36.46
2	*5800.00	100.21 PK			1.10 H	326	59.10	41.11
2	*5800.00	91.01 AV			1.10 H	326	49.90	41.11
3	#11600.00	56.21 PK	74.00	-17.79	1.15 H	300	8.71	47.50
3	#11600.00	44.10 AV	54.00	-9.90	1.15 H	300	-3.40	47.50

#### ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#3866.00	47.79 PK	74.00	-26.21	1.15 V	294	11.32	36.46
1	#3866.00	40.41 AV	54.00	-13.59	1.15 V	294	3.94	36.46
2	*5800.00	111.06 PK			1.18 V	118	69.95	41.11
2	*5800.00	101.62 AV			1.18 V	118	60.51	41.11
3	#7733.00	52.19 PK	74.00	-21.81	1.14 V	52	8.79	43.40
3	#7733.00	40.21 AV	54.00	-13.79	1.14 V	52	-3.19	43.40
4	#11600.00	61.22 PK	74.00	-12.78	1.21 V	32	13.72	47.50
4	#11600.00	48.37 AV	54.00	-5.63	1.21 V	32	0.87	47.50

#### NOTE:

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.
6. “#” The radiated frequency falling in the restricted band.
7. The limit value is defined as per 15.247