



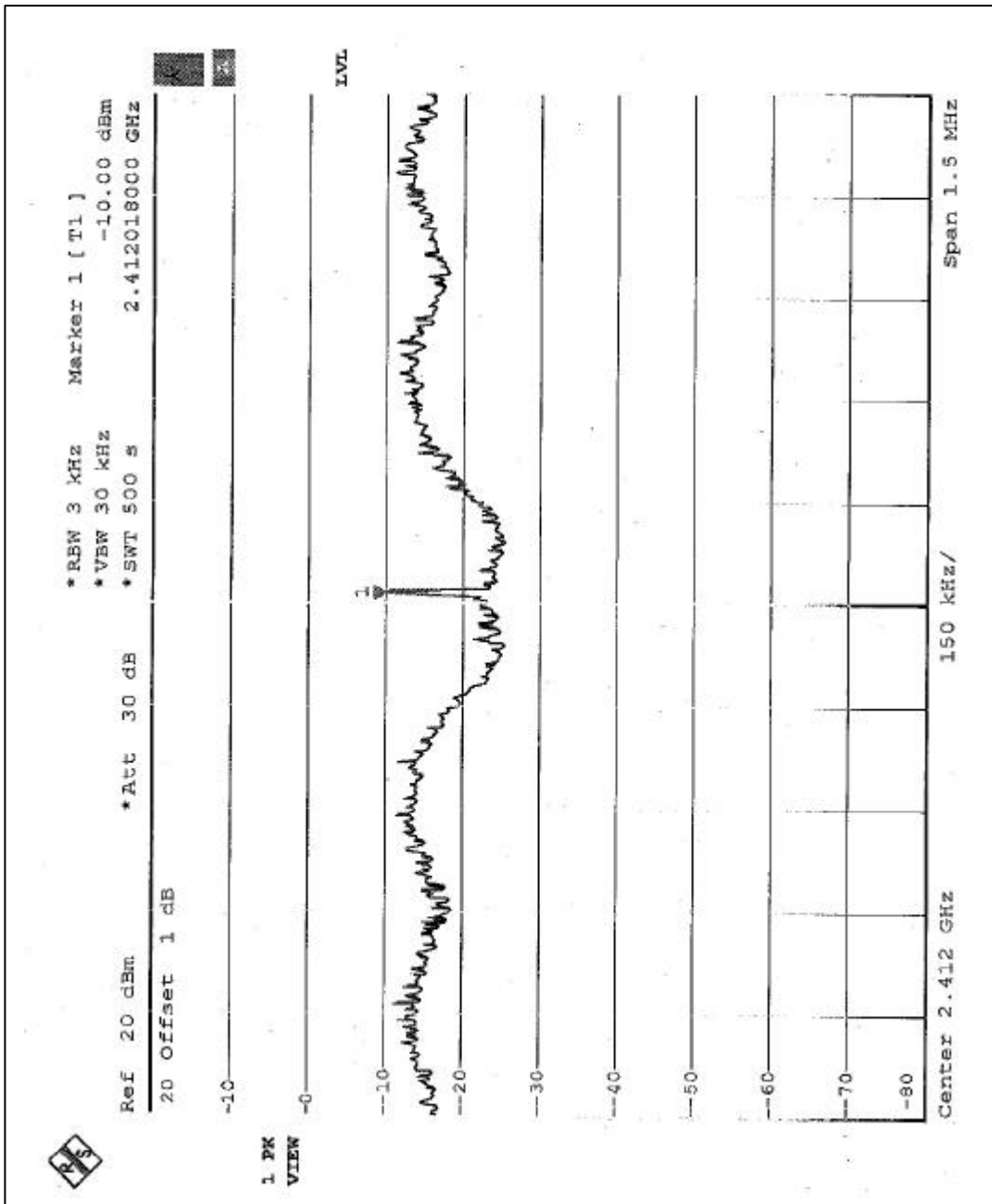
## 4.5.7 TEST RESULTS-OFDM

<b>EUT</b>	802.11b/g Cardbus	<b>MODEL</b>	G11FNF-PC
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>ENVIRONMENTAL CONDITIONS</b>	21 deg. C, 62 %RH, 979 hPa
<b>TEST MODE</b>	Antenna 1&3	<b>TESTED BY</b>	Hank Chung

<b>CHANNEL NUMBER</b>	<b>CHANNEL FREQUENCY (MHz )</b>	<b>RF POWER LEVEL IN 3 KHz BW (dBm)</b>	<b>MAXIMUM LIMIT (dBm)</b>	<b>PASS/FAIL</b>
1	2412	-10.00	8	PASS
6	2437	-10.13	8	PASS
11	2462	-10.58	8	PASS

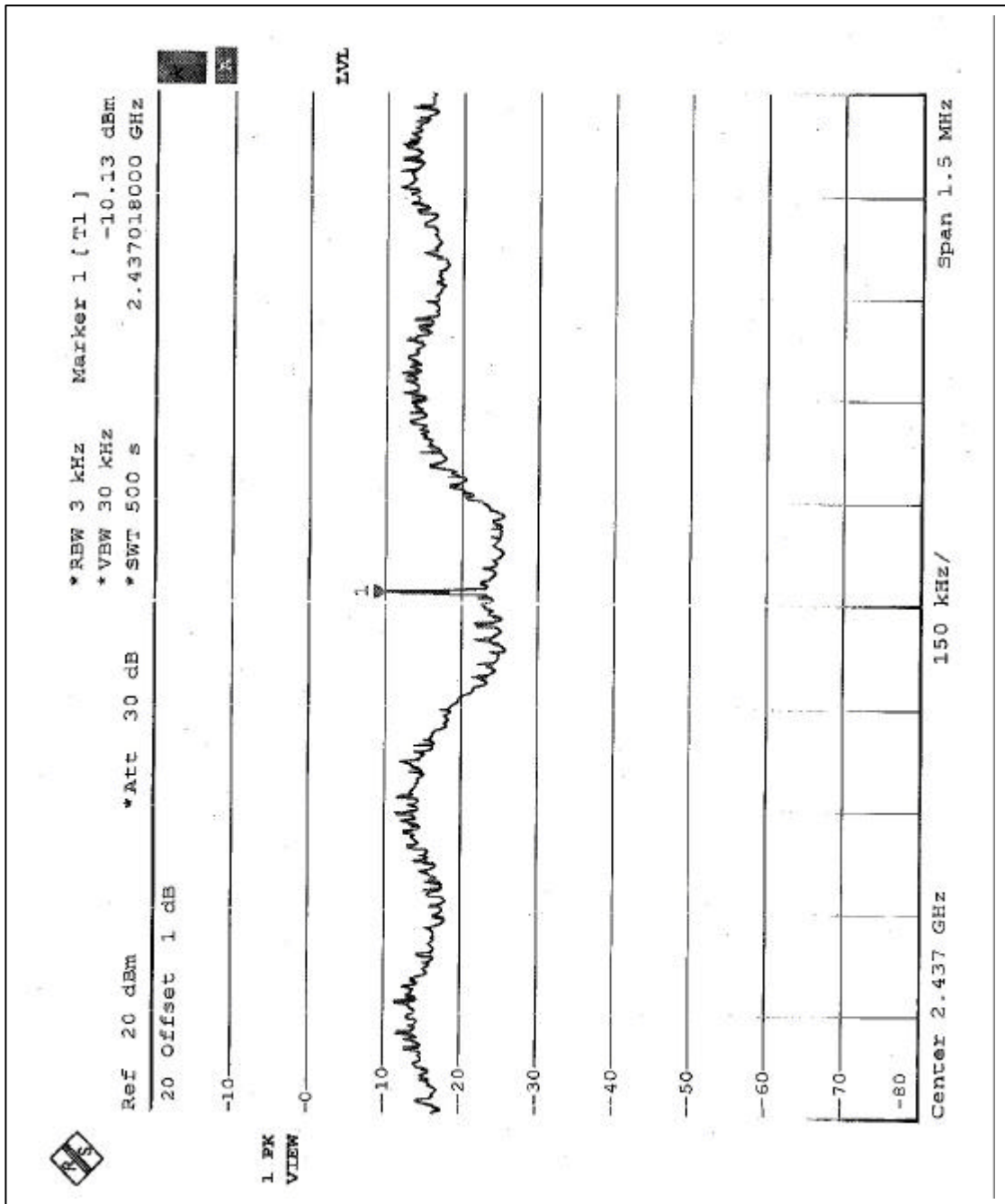


CH1



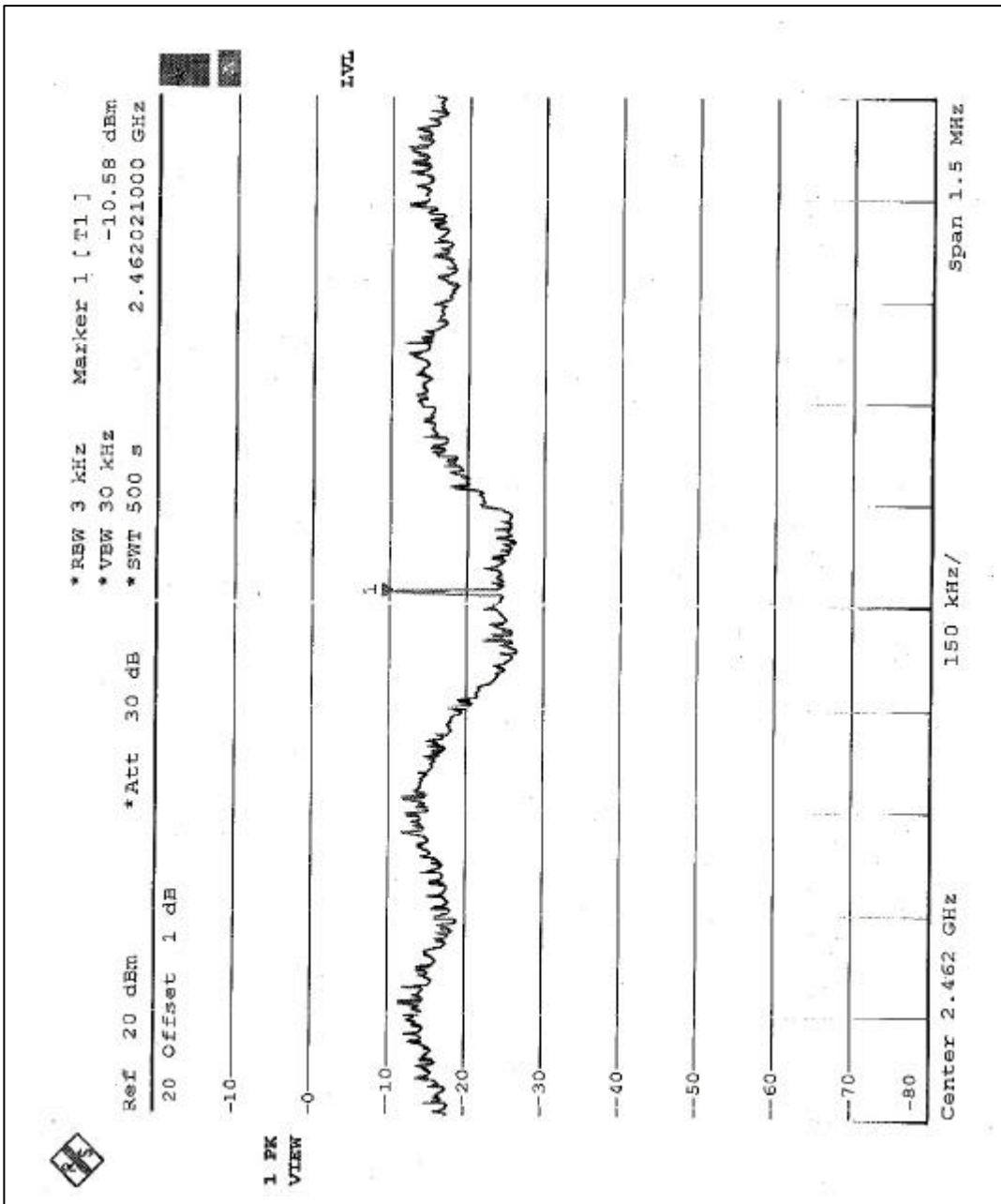


CH6





CH11



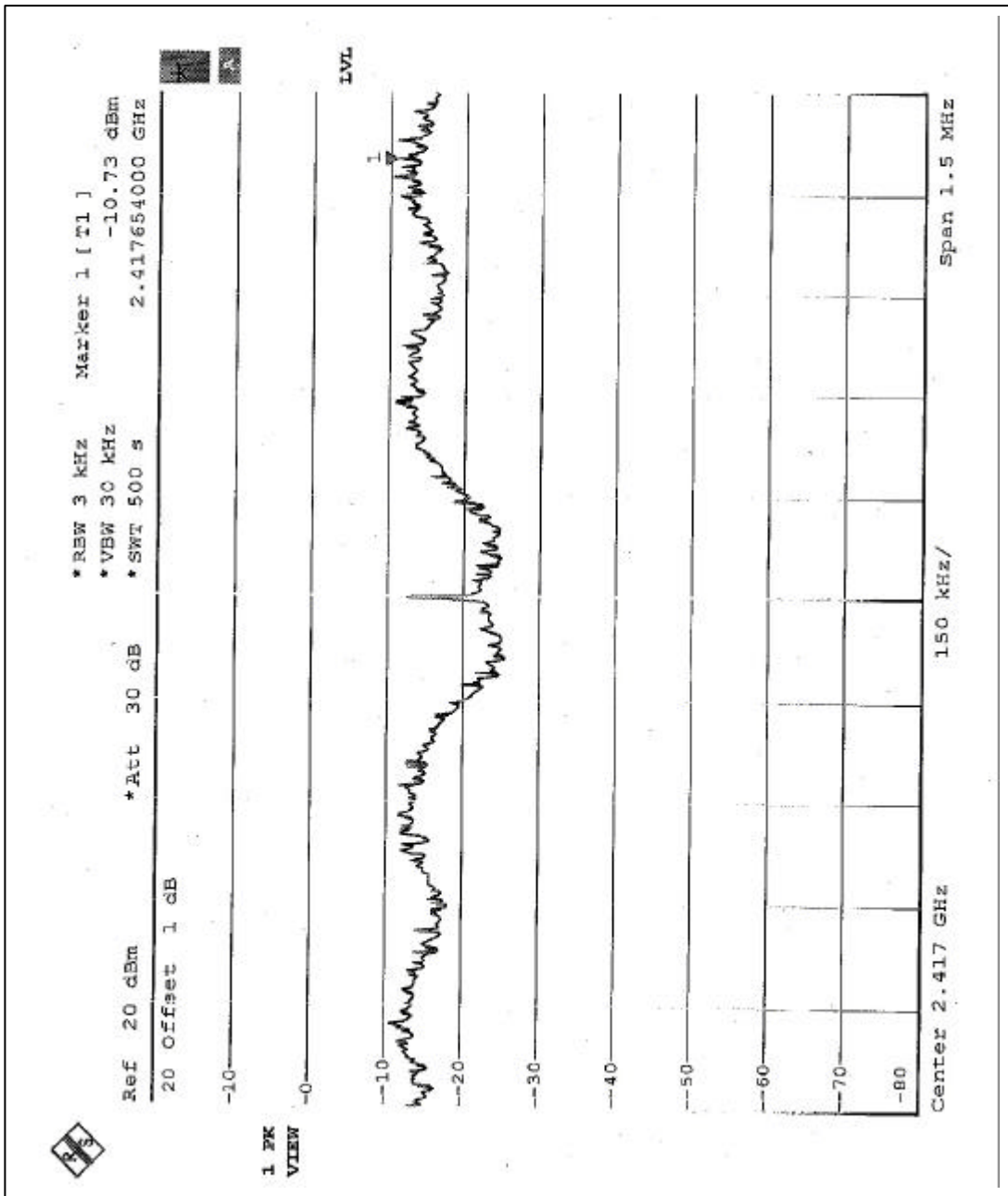


<b>EUT</b>	802.11b/g Cardbus	<b>MODEL</b>	G11FNF-PC
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>ENVIRONMENTAL CONDITIONS</b>	21 deg. C, 62 %RH, 979 hPa
<b>TEST MODE</b>	Antenna 2	<b>TESTED BY</b>	Hank Chung

<b>CHANNEL NUMBER</b>	<b>CHANNEL FREQUENCY (MHz )</b>	<b>RF POWER LEVEL IN 3 KHz BW (dBm)</b>	<b>MAXIMUM LIMIT (dBm)</b>	<b>PASS/FAIL</b>
2	2417	-10.73	8	PASS
6	2437	-10.13	8	PASS
10	2457	-10.83	8	PASS

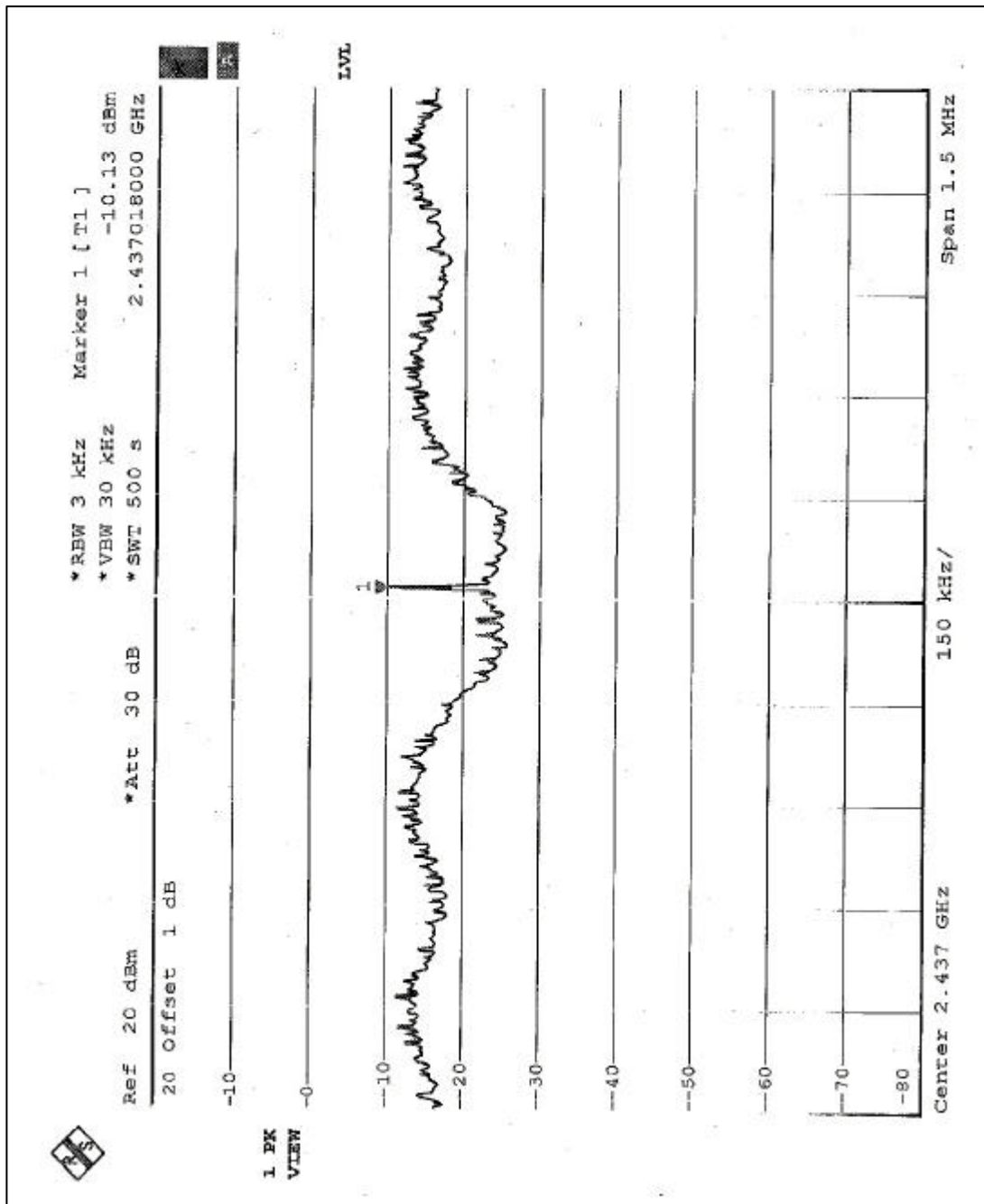


CH2



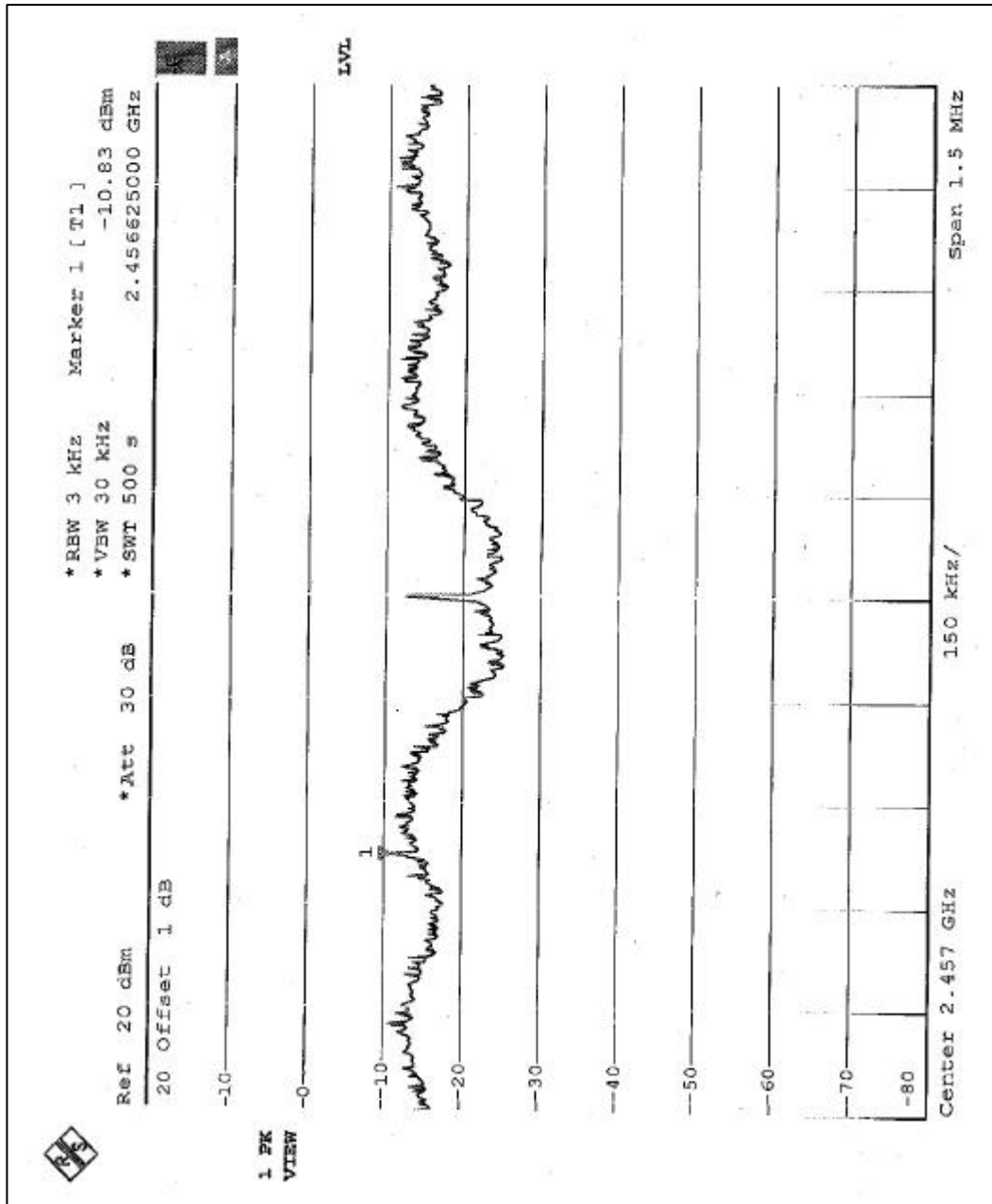


CH6





CH10







## 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
R&S SPECTRUM ANALYZER	FSP	1093.4495.30	Dec. 19, 2003

**NOTE:**

- 1.The measurement uncertainty is less than +/- 2.6dB, which is calculated as per the NAMAS document NIS81.
- 2.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 100 kHz with suitable frequency span including 100 kHz bandwidth from band edge. The band edges was measured and recorded.

### 4.6.4 EUT OPERATING CONDITION

Same as Item 4.3.5



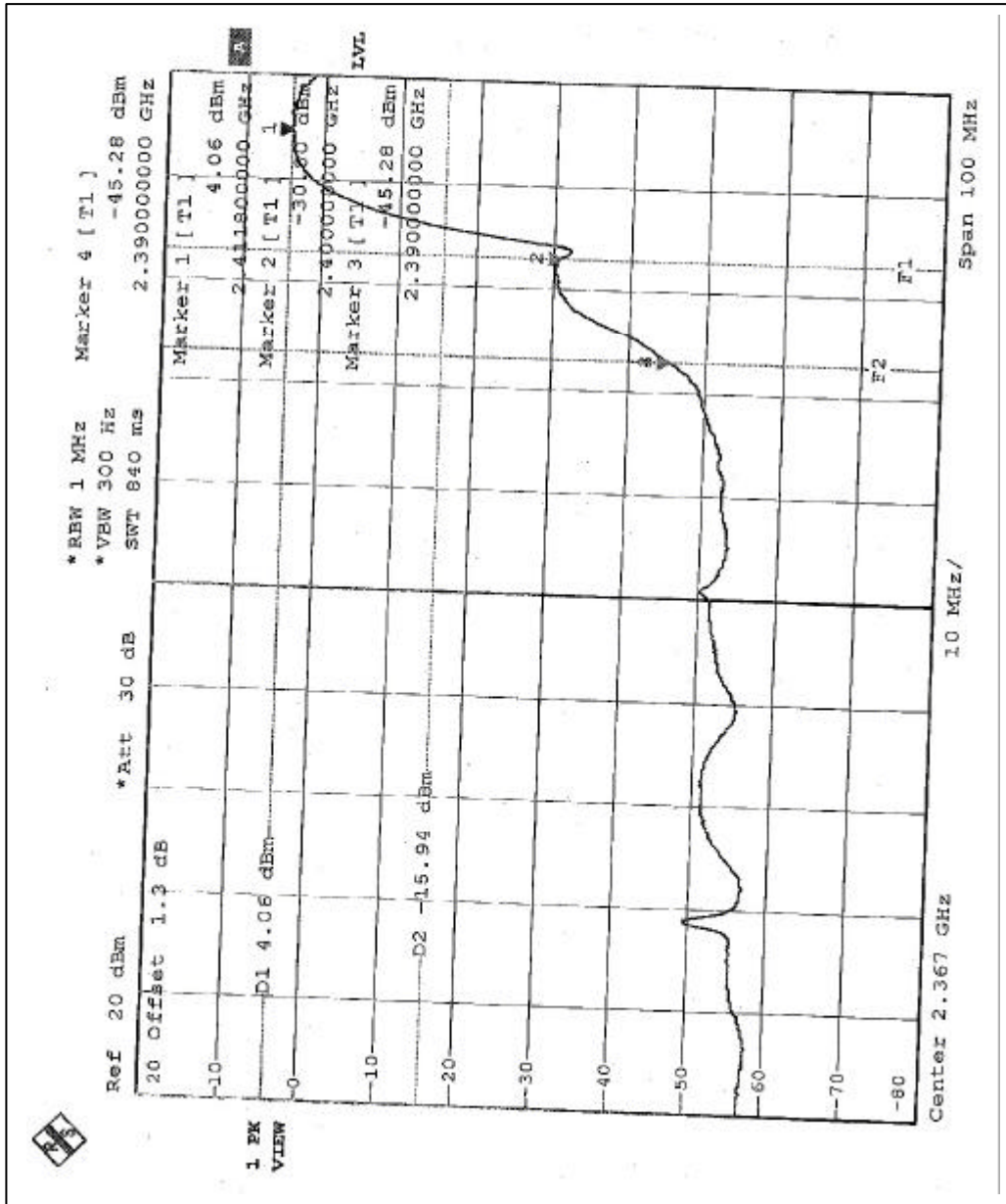
#### 4.6.5 TEST RESULTS - DSSS

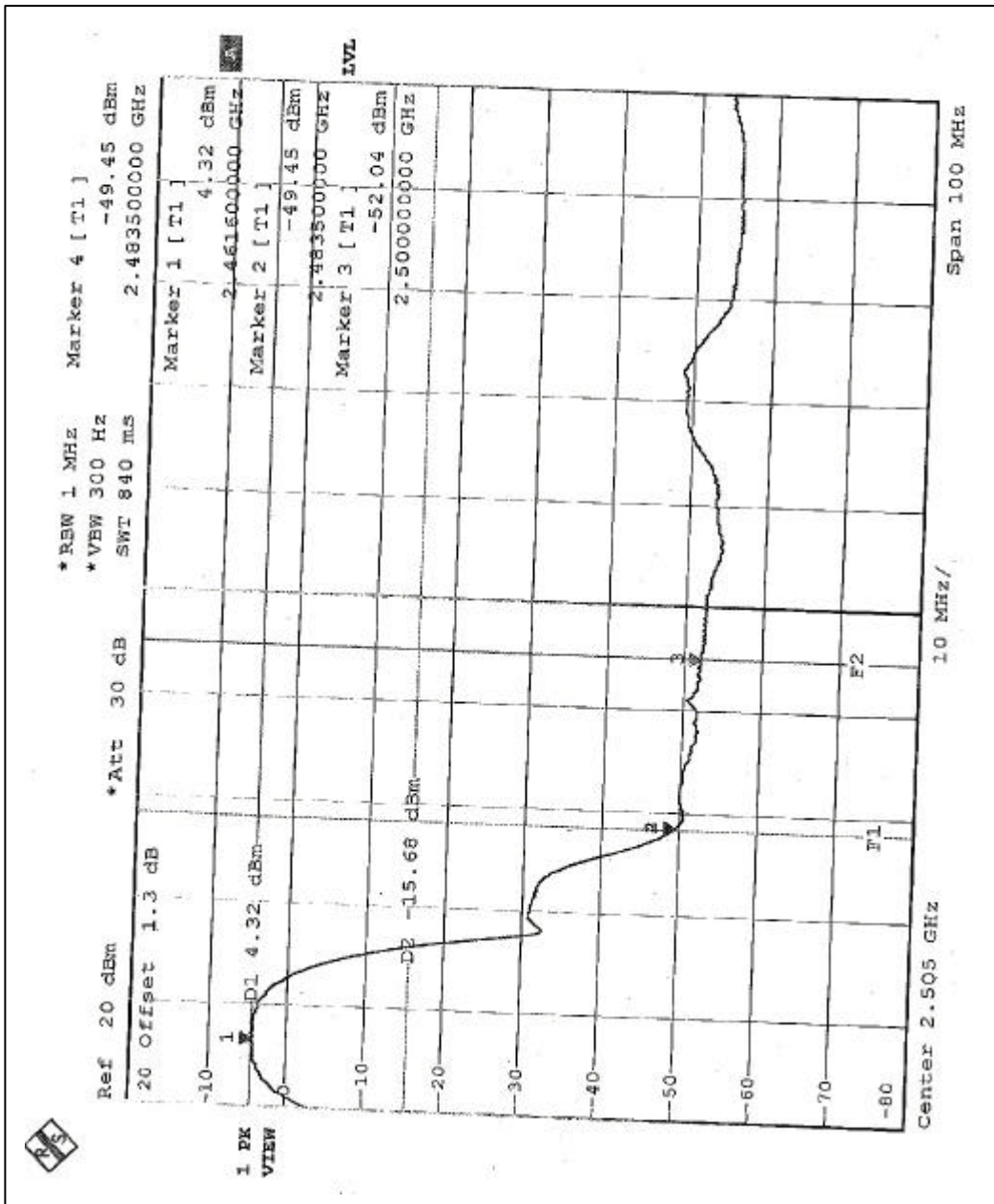
◆ TEST MODE: Antenna 1&3

The spectrum plots are attached on the following 2 pages. D1 line indicates the highest level, D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(C).

**NOTE (1):** The band edge emission plot on the following first page shows 49.34dB delta between carrier maximum power and local maximum emission in restrict band (2.390GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 95.8dBuV/m, so the maximum field strength in restrict band is  $95.8 - 49.34 = 46.46$  dBuV/m which is under 54 dBuV/m limit.

**NOTE (2):** The band edge emission plot on the following second page shows 53.77dB 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 97.0dBuV/m, so the maximum field strength in restrict band is  $97.0 - 53.77 = 43.23$  dBuV/m which is under 54 dBuV/m limit.





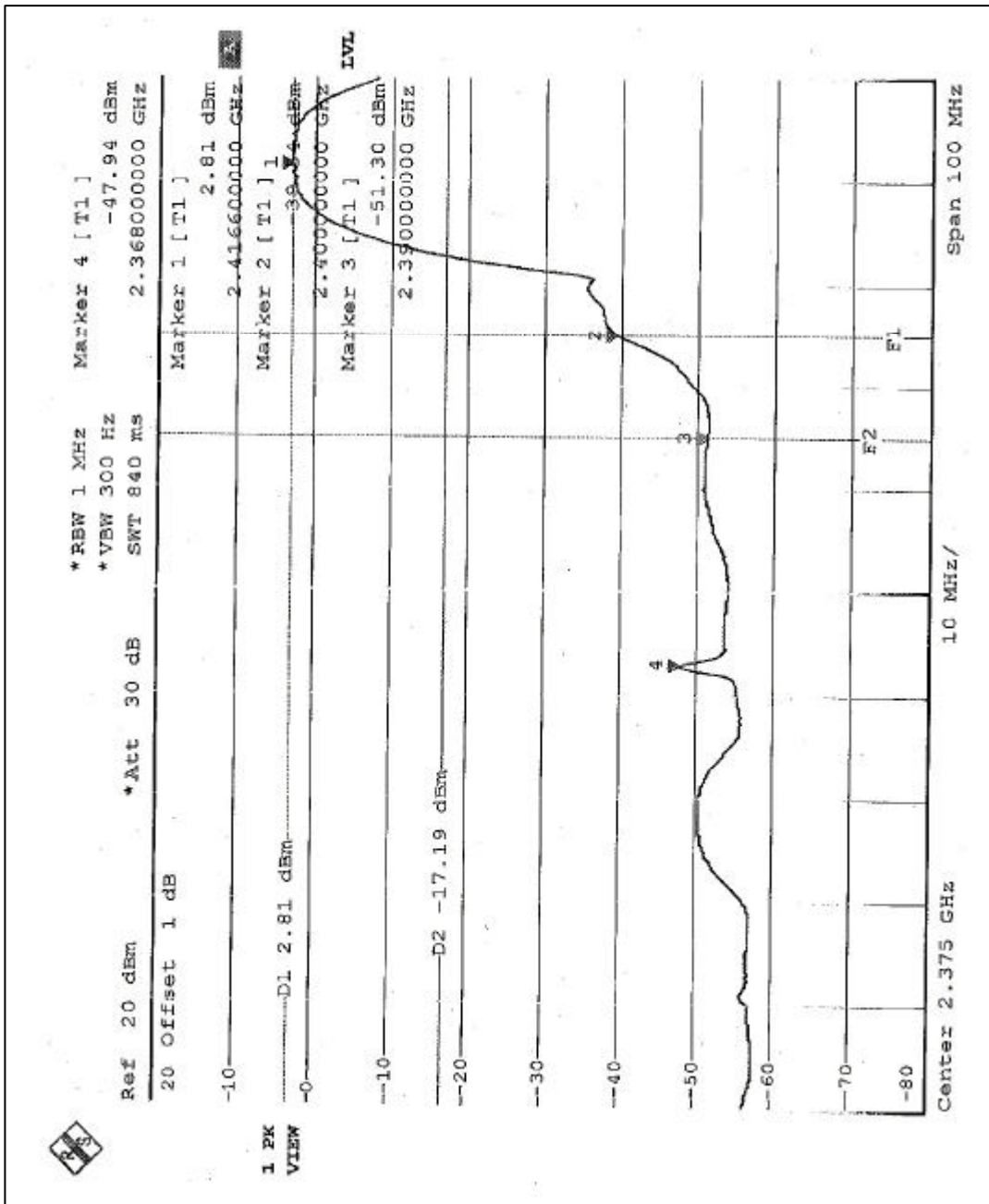


◆ TEST MODE: Antenna 2

The spectrum plots are attached on the following 2 pages. D1 line indicates the highest level, D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(C).

**NOTE (1):** The band edge emission plot on the following first page shows 50.75dB delta between carrier maximum power and local maximum emission in restrict band (2.2.368GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 99.8dBuV/m, so the maximum field strength in restrict band is  $99.8-50.75=49.05$ dBuV/m which is under 54 dBuV/m limit.

**NOTE (2):** The band edge emission plot on the following second page shows 53.40dB delta between carrier maximum power and local maximum emission in restrict band (2.2.4884GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 99.8dBuV/m, so the maximum field strength in restrict band is  $99.8-53.40=46.4$ dBuV/m which is under 54 dBuV/m limit.







#### 4.6.6 TEST RESULTS-OFDM

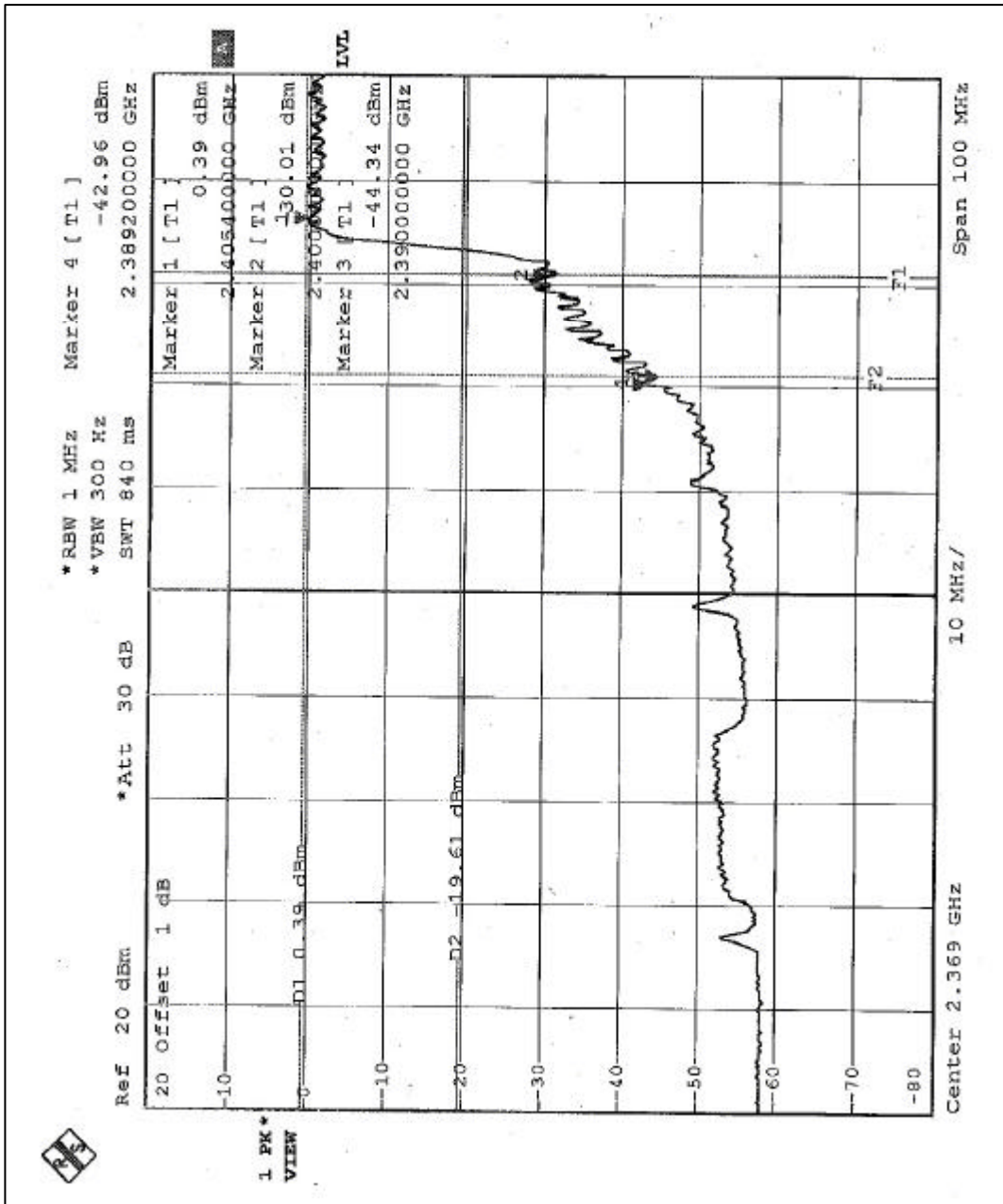
◆ TEST MODE: Antenna 1&3

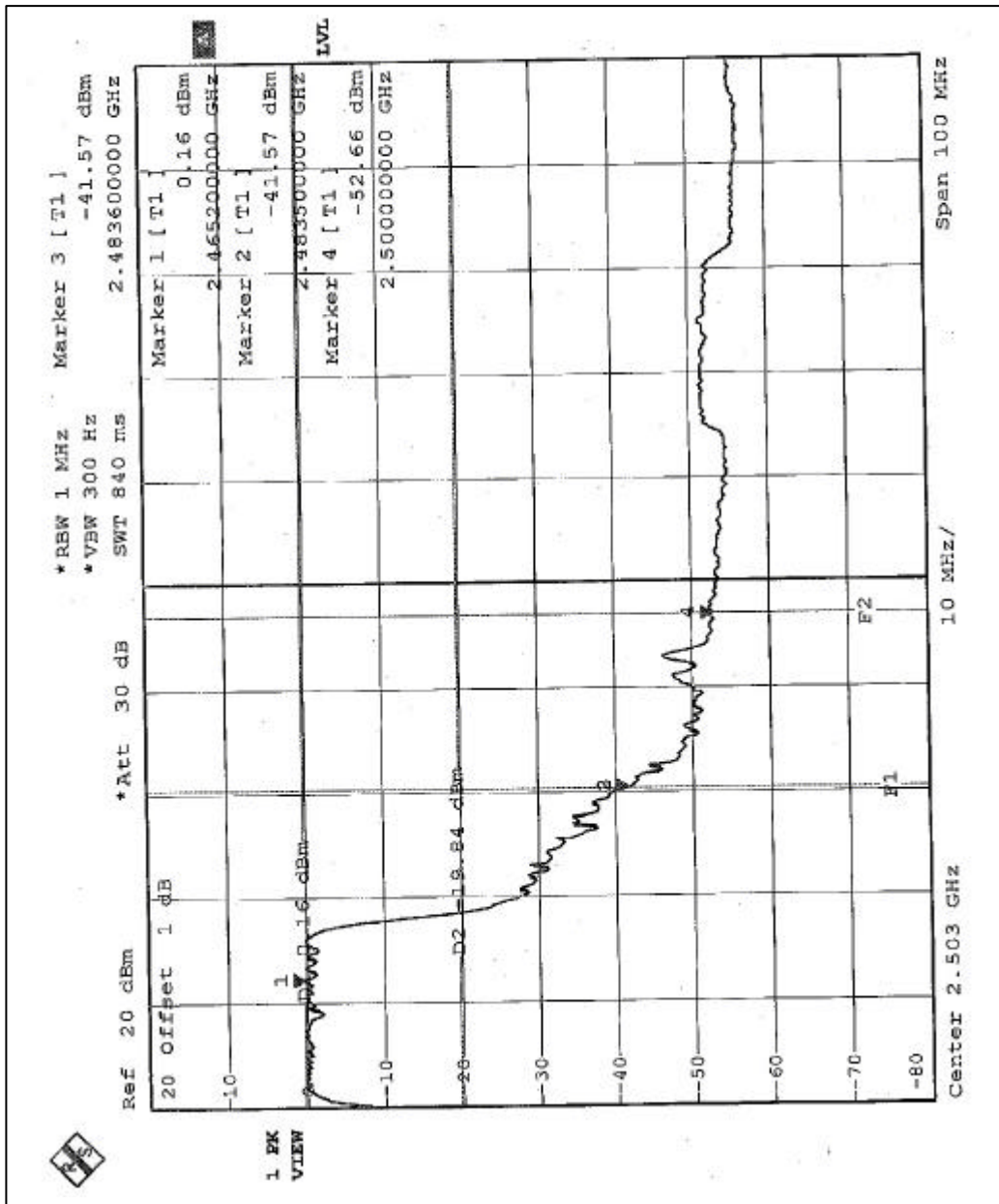
The spectrum plots are attached on the following 2 pages. D1 line indicates the highest level, D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(C).

**NOTE (1):** The band edge emission plot on the following first page shows 43.35dB delta between carrier maximum power and local maximum emission in restrict band (2.3892GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.8 is 93.8dBuV/m, so the maximum field strength in restrict band is  $93.8-43.35=50.45$ dBuV/m which is under 54 dBuV/m limit.

**NOTE (2):** The band edge emission plot on the following second page shows 41.73dB delta between carrier maximum power and local maximum emission in restrict band (2.4836GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.8 is 93.3dBuV/m, so the maximum field strength in restrict band is  $93.3-41.73=51.57$ dBuV/m which is under 54 dBuV/m limit.







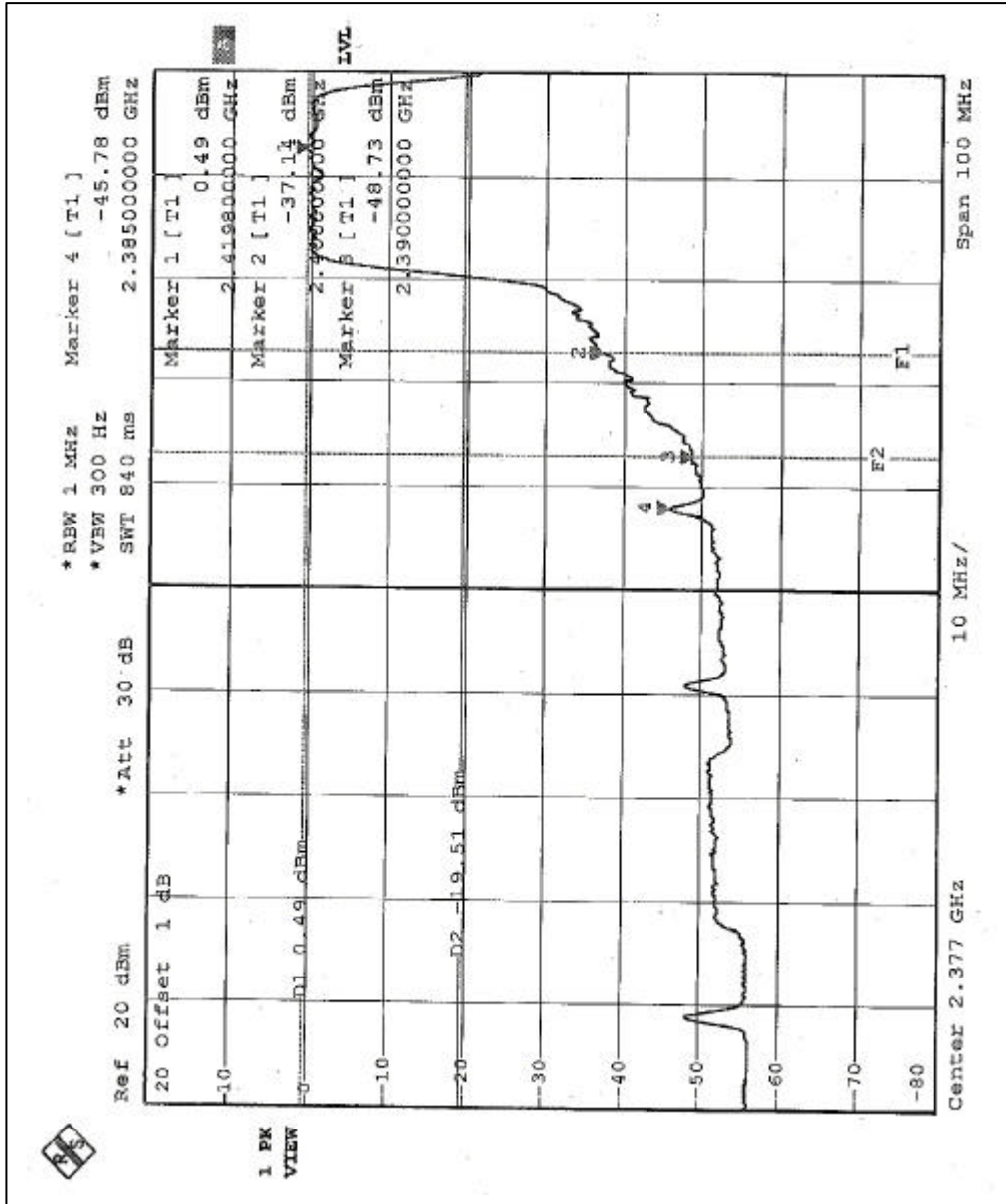


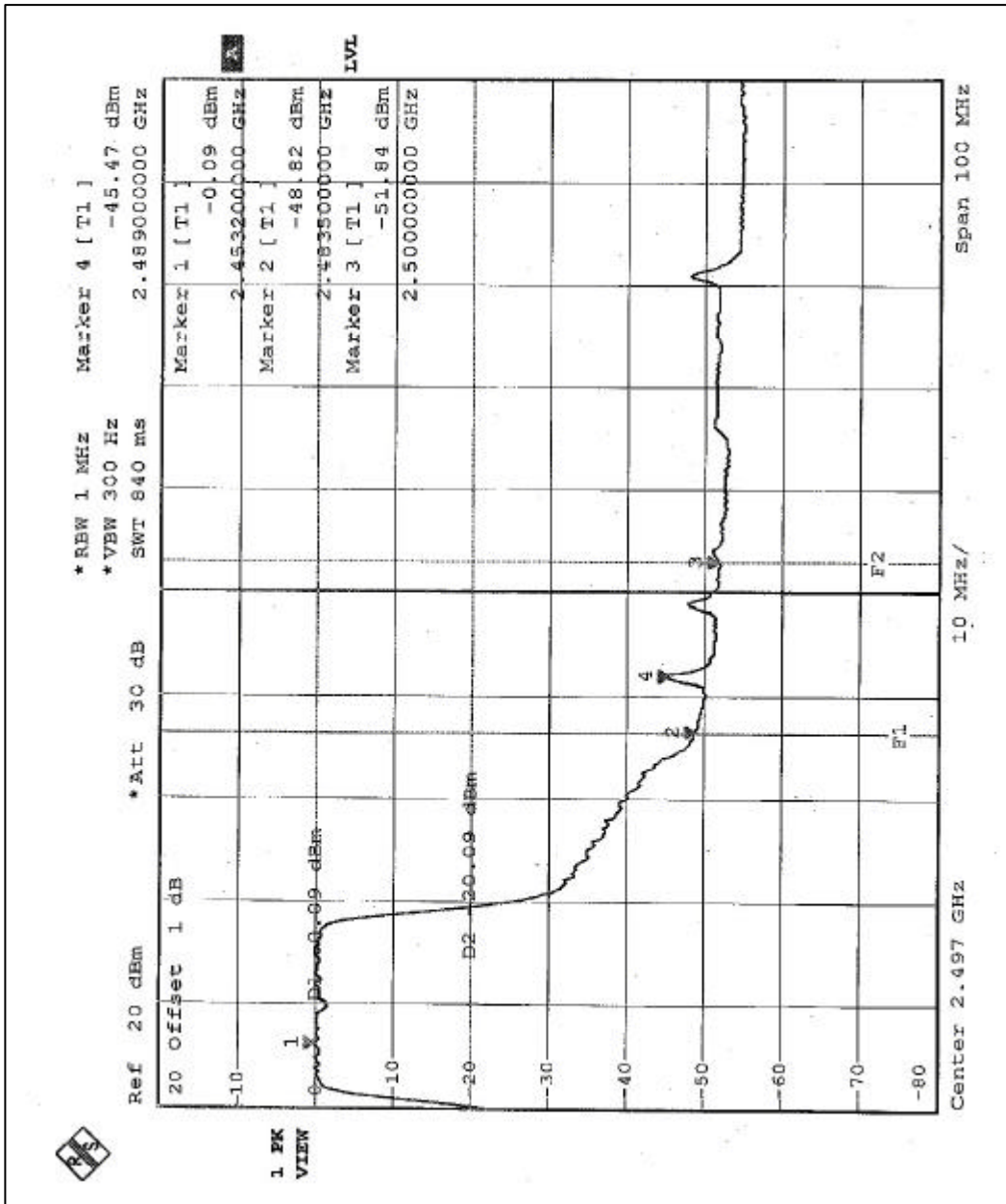
◆ TEST MODE: Antenna 2

The spectrum plots are attached on the following 2 pages. D1 line indicates the highest level, D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(C).

**NOTE (1):** The band edge emission plot on the following first page shows 46.27dB delta between carrier maximum power and local maximum emission in restrict band (2.385GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.8 is 95.8dBuV/m, so the maximum field strength in restrict band is  $95.8 - 46.27 = 49.53$ dBuV/m which is under 54 dBuV/m limit.

**NOTE (2):** The band edge emission plot on the following second page shows 45.38dB delta between carrier maximum power and local maximum emission in restrict band (2.489GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.8 is 96.9dBuV/m, so the maximum field strength in restrict band is  $96.9 - 45.38 = 51.52$ 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.

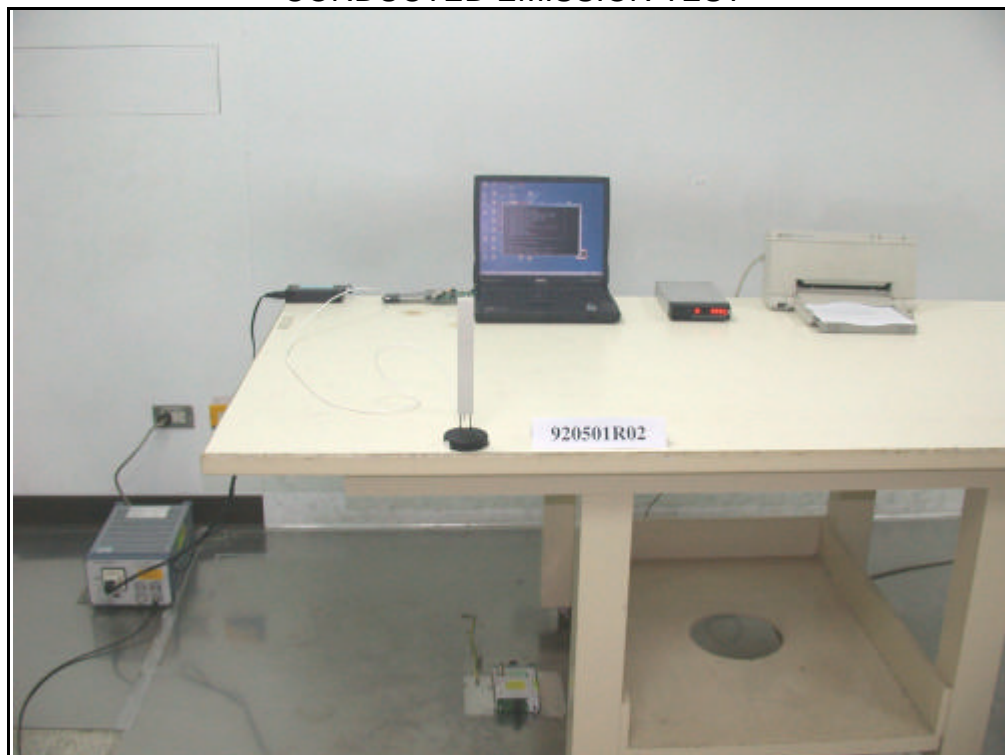
And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

### 4.7.2 ANTENNA CONNECTED CONSTRUCTION

The antenna types used in this product are Integral antenna, Omni directional (mono-pole) Antenna and Omni directional (dipole) Antenna with MMCX connector. And the maximum Gain of this antenna is only 5dBi.



## 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 and Safety consultation. Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025, Guide 25 or EN 45001:

<b>USA</b>	FCC, NVLAP, UL
<b>Germany</b>	TUV Rheinland
<b>Japan</b>	VCCI
<b>New Zealand</b>	MoC
<b>Norway</b>	NEMKO
<b>Canada</b>	INDUSTRY CANADA
<b>R.O.C.</b>	CNLA, BSMI

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](http://www.adt.com.tw/index.5/phtml).

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Fax: 886-35-935342

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