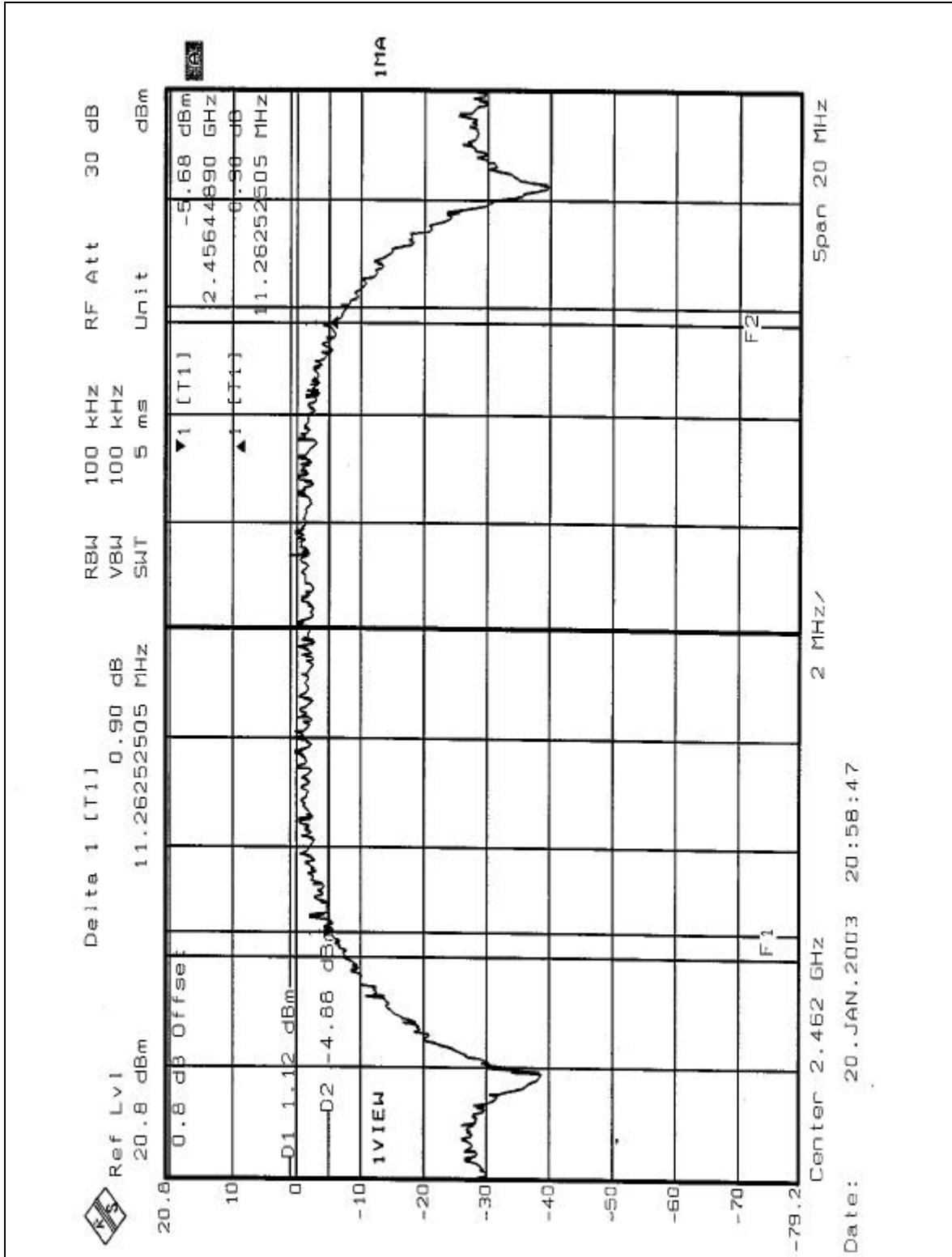




CH11





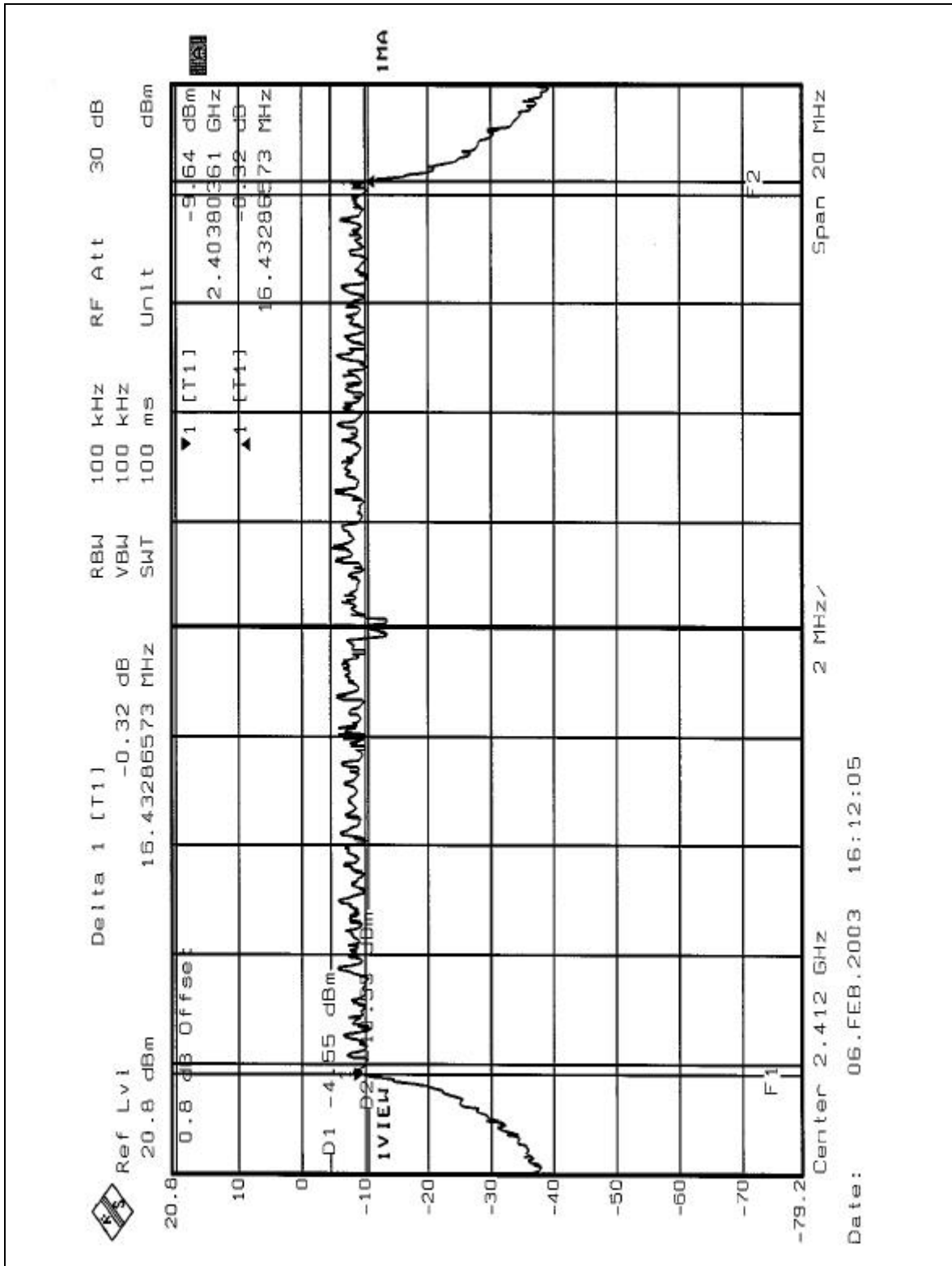
4.3.8 TEST RESULTS (For OFDM)

<b>EUT</b>	Wireless LAN PCMCIA Card	<b>MODEL</b>	WLC3010
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>ENVIRONMENTAL CONDITIONS</b>	23deg. C, 65%RH, 1005 hPa
<b>TESTED BY:</b> Ansen Lei			

<b>CHANNEL</b>	<b>CHANNEL FREQUENCY (MHz)</b>	<b>6dB BANDWIDTH (MHz)</b>	<b>MINIMUM LIMIT (MHz)</b>	<b>PASS/FAIL</b>
1	2412	16.433	0.5	PASS
6	2437	16.433	0.5	PASS
11	2462	16.513	0.5	PASS

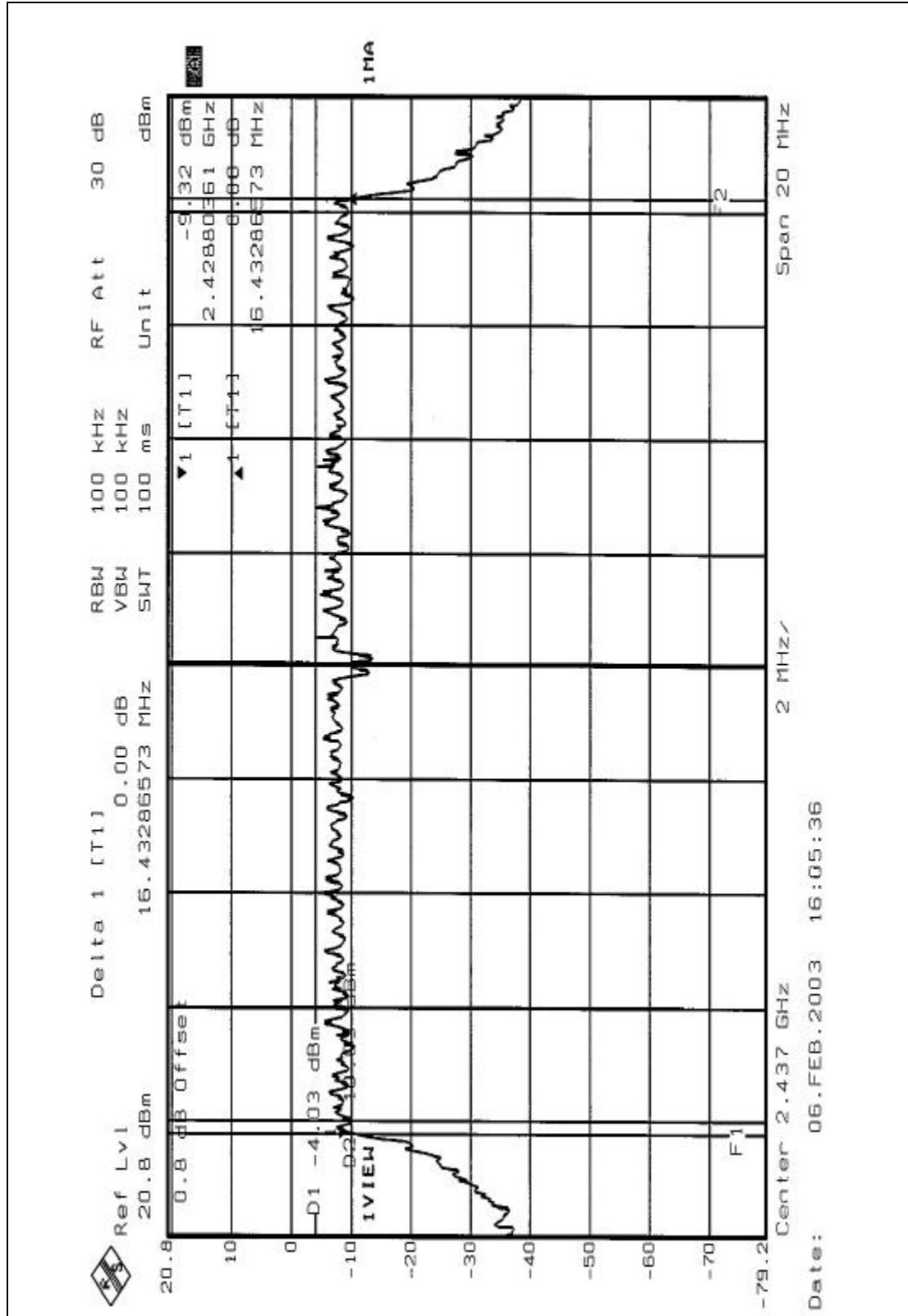


CH1



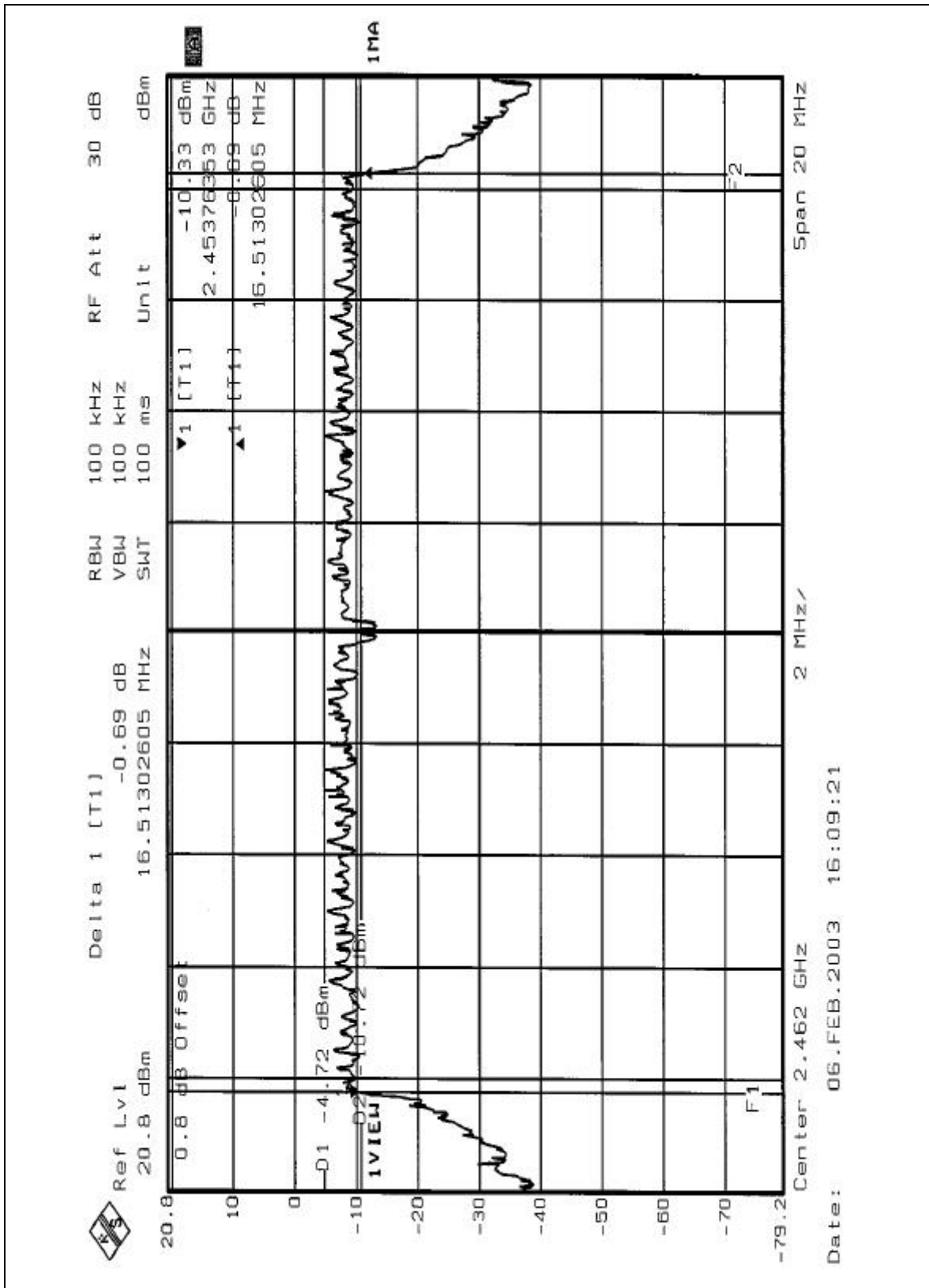


CH6





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
POWER METER	E4416A	GB41291118	July. 30, 2003
PEAK POWER SENSOR	E9327A	US40440722	July. 30, 2003

**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

The transmitter output was connected to the power meter.

#### 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)

<b>EUT</b>	Wireless LAN PCMCIA Card	<b>MODEL</b>	WLC3010
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>ENVIRONMENTAL CONDITIONS</b>	19deg. C, 60%RH, 1005 hPa
<b>TESTED BY:</b> Steven Lu			

<b>CHANNEL</b>	<b>CHANNEL FREQUENCY (MHz)</b>	<b>PEAK POWER OUTPUT (dBm)</b>	<b>PEAK POWER LIMIT (dBm)</b>	<b>PASS/FAIL</b>
1	2412	15.23	30	PASS
6	2437	14.82	30	PASS
11	2462	15.11	30	PASS





4.4.8 TEST RESULTS (For OFDM)

<b>EUT</b>	Wireless LAN PCMCIA Card	<b>MODEL</b>	WLC3010
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>ENVIRONMENTAL CONDITIONS</b>	19deg. C, 60%RH, 1005 hPa
<b>TESTED BY:</b> Ansen Lei			

<b>CHANNEL</b>	<b>CHANNEL FREQUENCY (MHz)</b>	<b>PEAK POWER OUTPUT (dBm)</b>	<b>PEAK POWER LIMIT (dBm)</b>	<b>PASS/FAIL</b>
1	2412	14.97	30	PASS
6	2437	14.89	30	PASS
11	2462	14.75	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
R&S SPECTRUM ANALYZER	FSEK30	100049	July 24, 2003

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

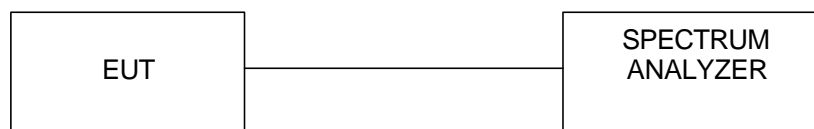
#### 4.5.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer through an attenuator, the bandwidth of the fundamental frequency was measured with the spectrum analyzer using 3 kHz RBW and 30 kHz VBW, set sweep time=span/3kHz. The power spectral density was measured and recorded. The sweep time is allowed to be longer than span/3KHz for a full response of the mixer in the spectrum analyzer.

#### 4.5.4 DEVIATION FROM TEST STANDARD

No deviation

#### 4.5.5 TEST SETUP



#### 4.5.6 EUT OPERATING CONDITIONS

Same as 4.3.6.



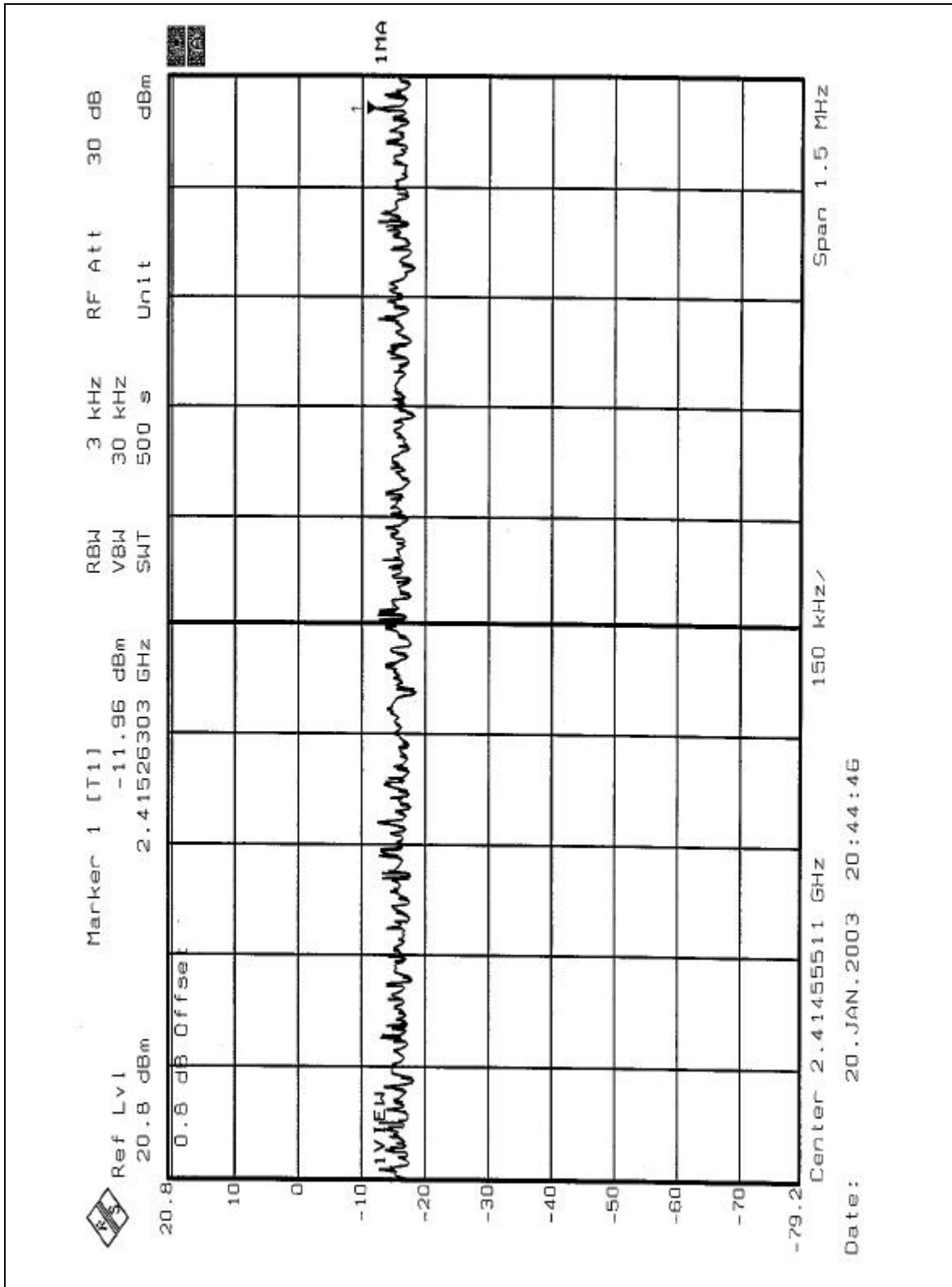
## 4.5.7 TEST RESULTS (For CCK)

<b>EUT</b>	Wireless LAN PCMCIA Card	<b>MODEL</b>	WLC3010
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>ENVIRONMENTAL CONDITIONS</b>	19deg. C, 54%RH, 1005 hPa
<b>TESTED BY:</b> Steven Lu			

<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	-11.96	8	PASS
6	2437	-12.38	8	PASS
11	2462	-13.08	8	PASS

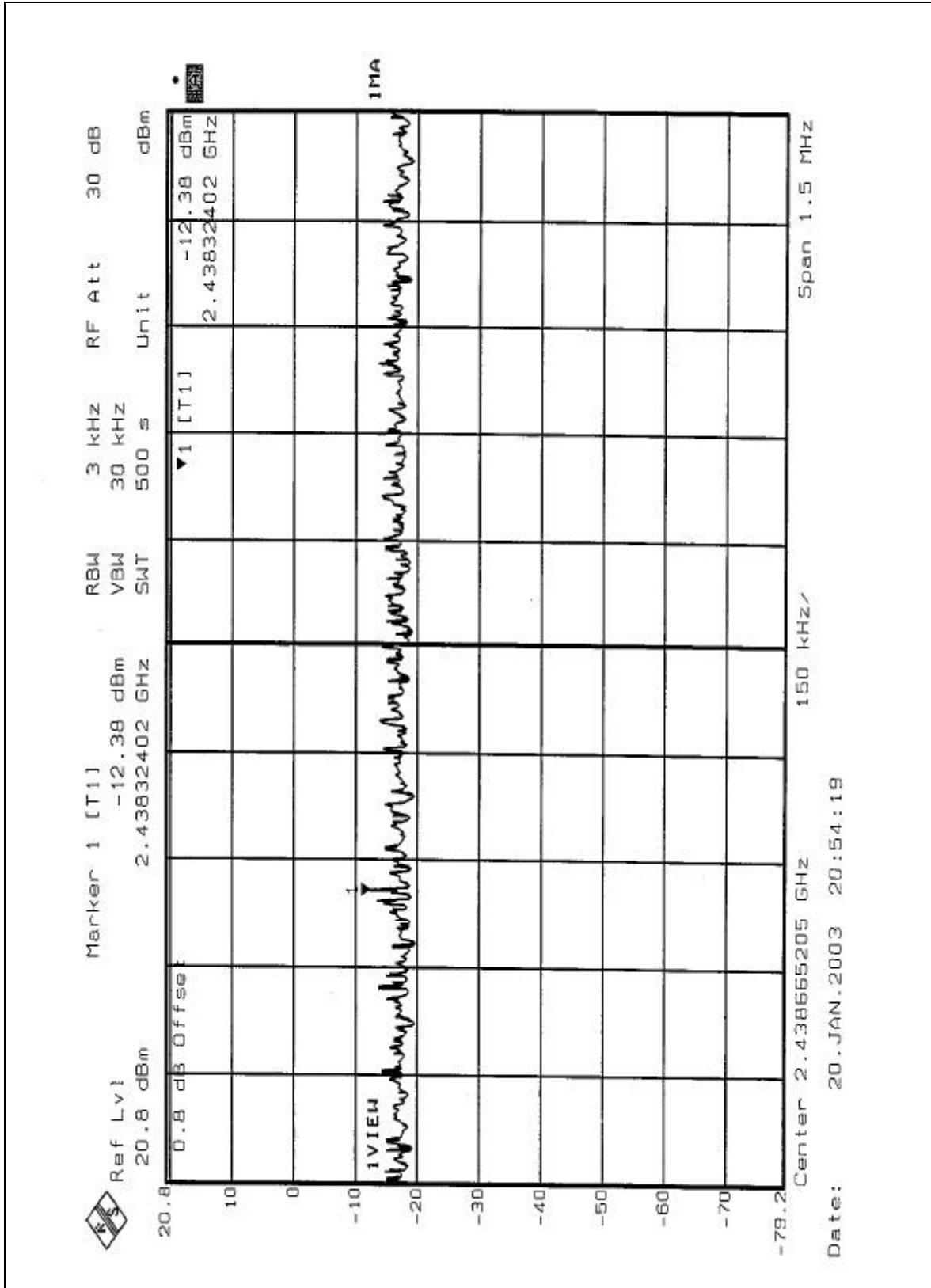


CH1



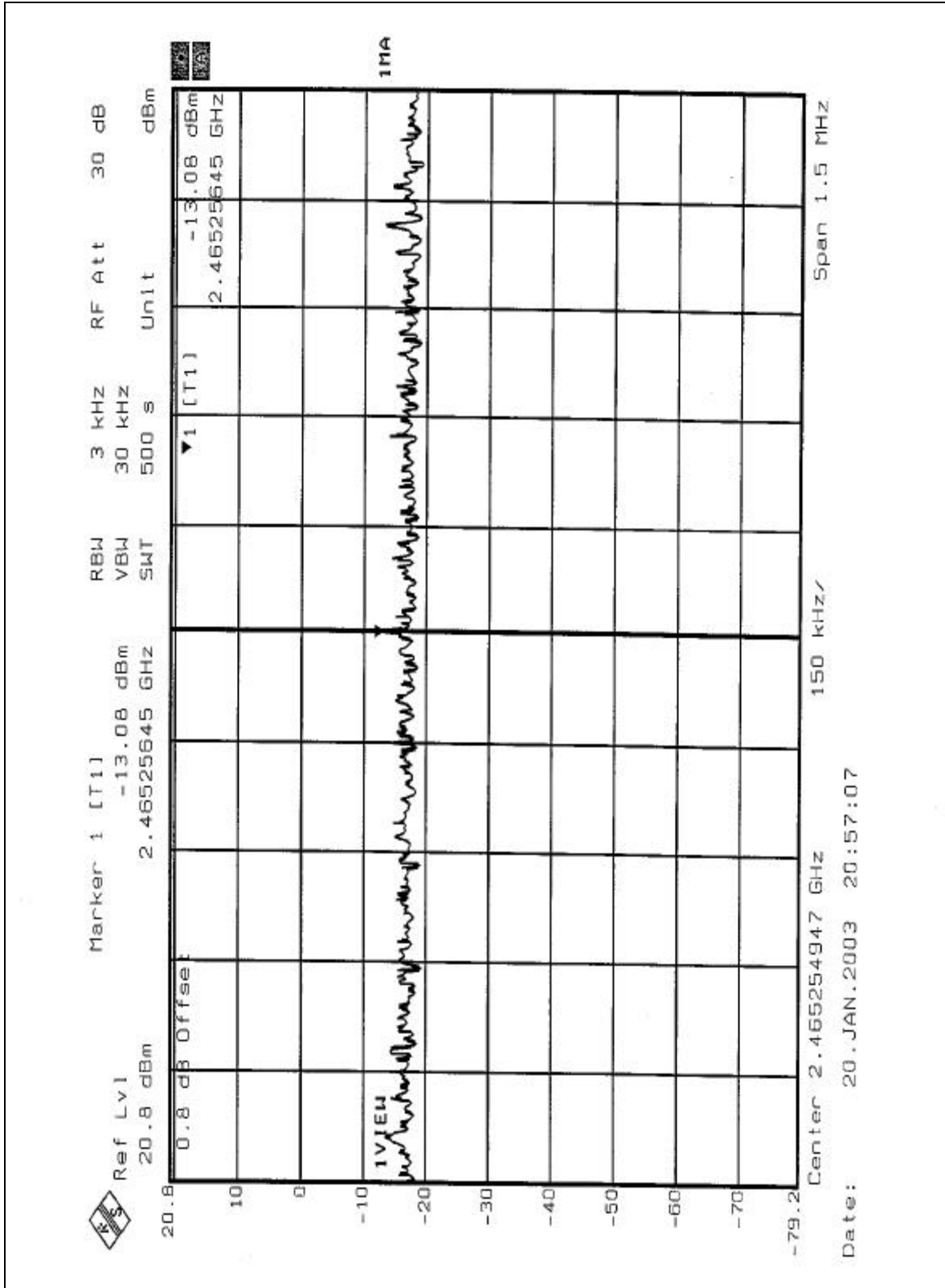


CH6





CH11





## 4.5.8 TEST RESULTS (For OFDM)

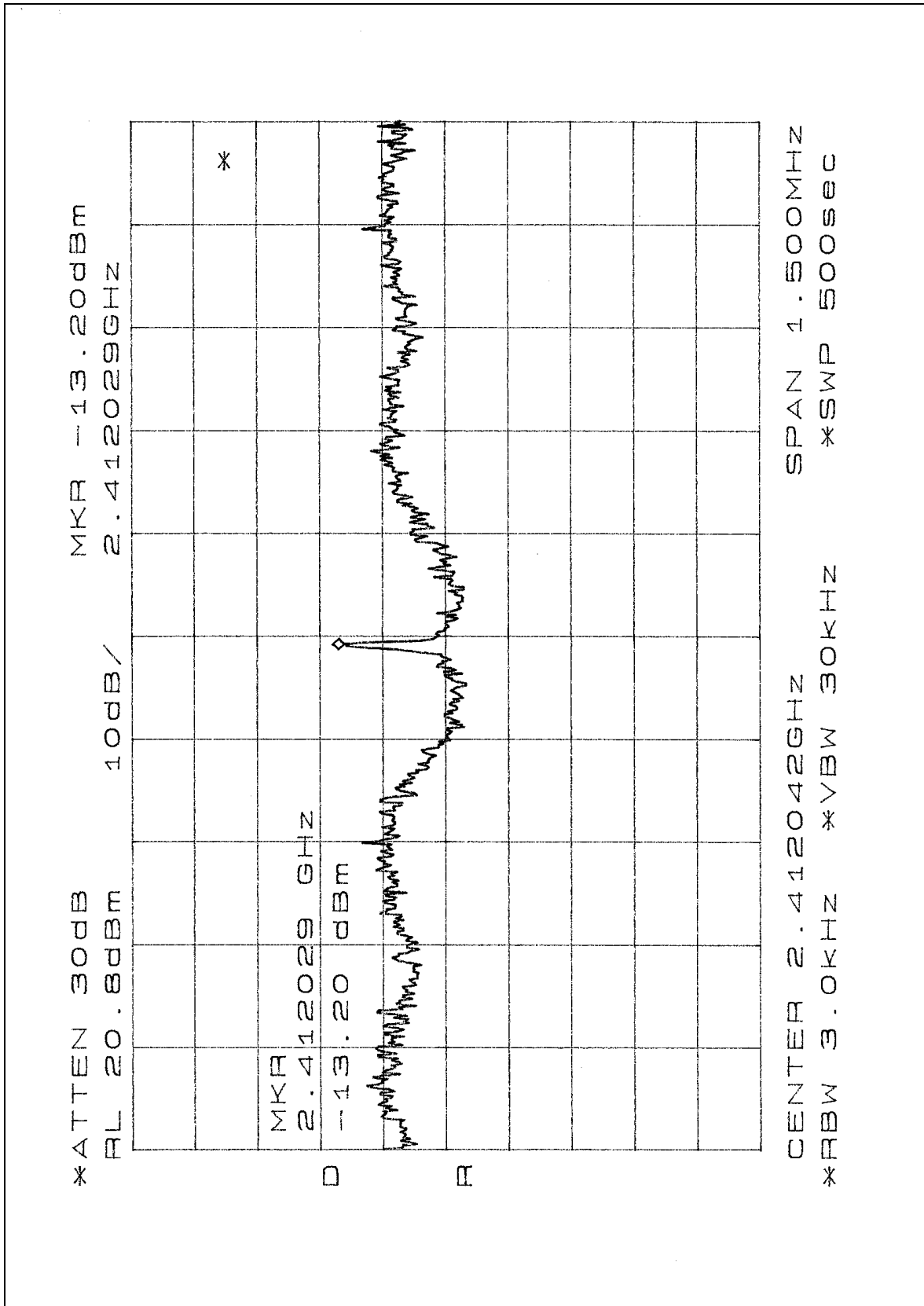
<b>EUT</b>	Wireless LAN PCMCIA Card	<b>MODEL</b>	WLC3010
<b>INPUT POWER (SYSTEM)</b>	120Vac, 60 Hz	<b>ENVIRONMENTAL CONDITIONS</b>	23deg. C, 65%RH, 1005 hPa
<b>TESTED BY:</b> Ansen Lei			

<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	-13.20	8	PASS
6	2437	-12.53	8	PASS
11	2462	-13.03	8	PASS



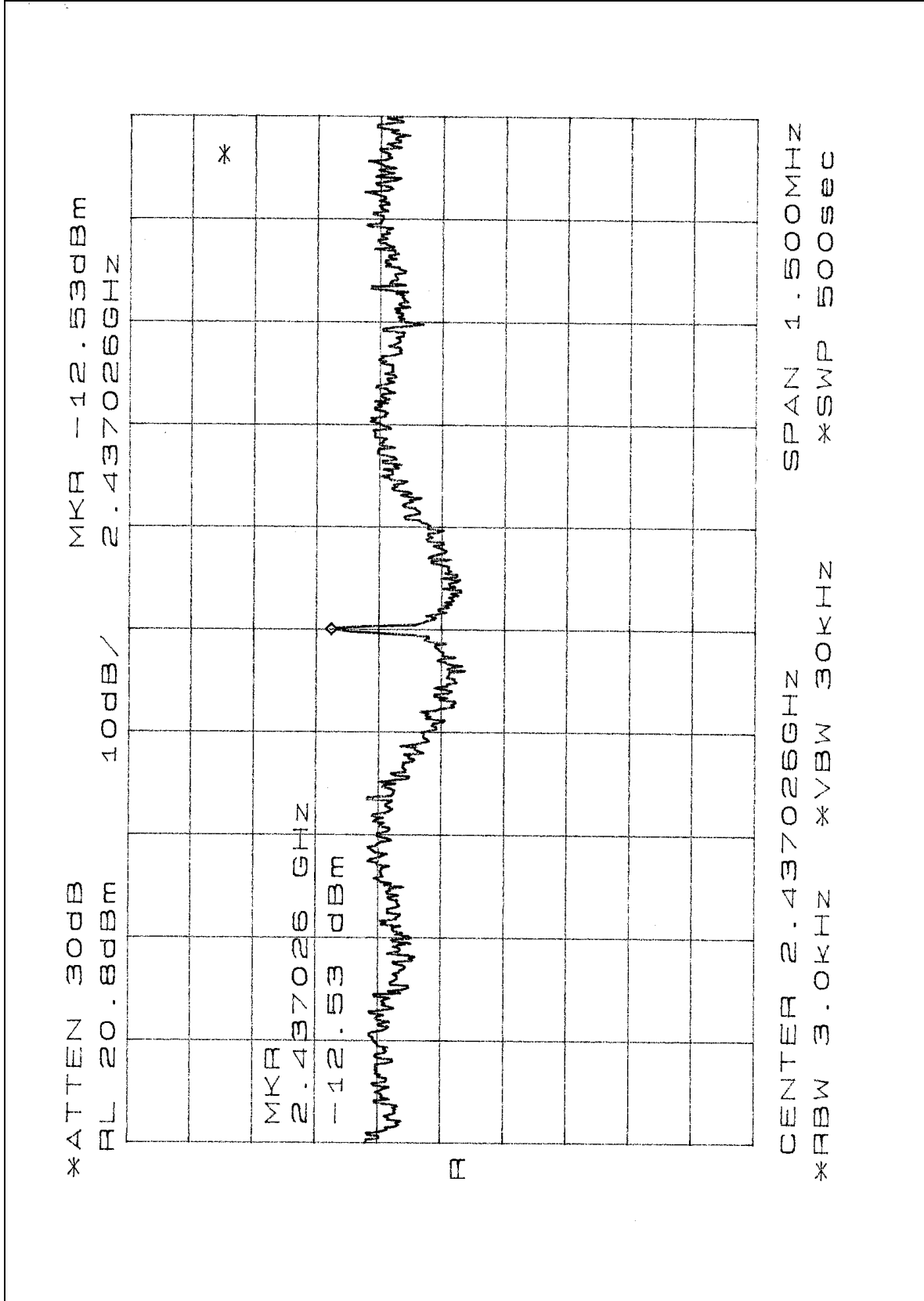


CH1



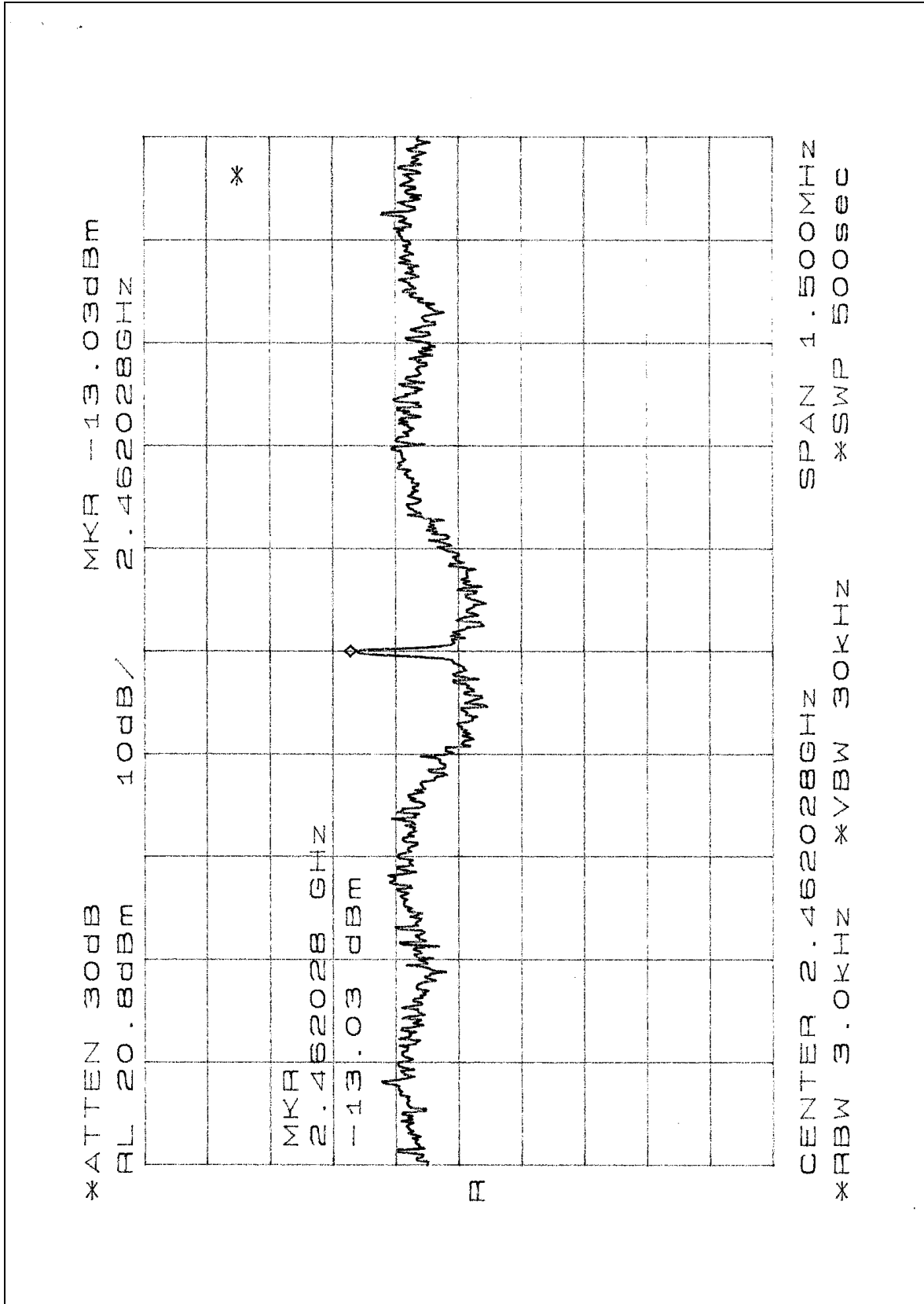


CH6





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
R&S SPECTRUM ANALYZER	FSEK30	100049	July 24, 2003

**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 100 kHz with suitable frequency span including 100 kHz bandwidth from band edge. The band edges was measured and recorded.

### 4.6.4 DEVIATION FROM TEST STANDARD

No deviation



#### 4.6.5 EUT OPERATING CONDITION

Same as Item 4.3.6.

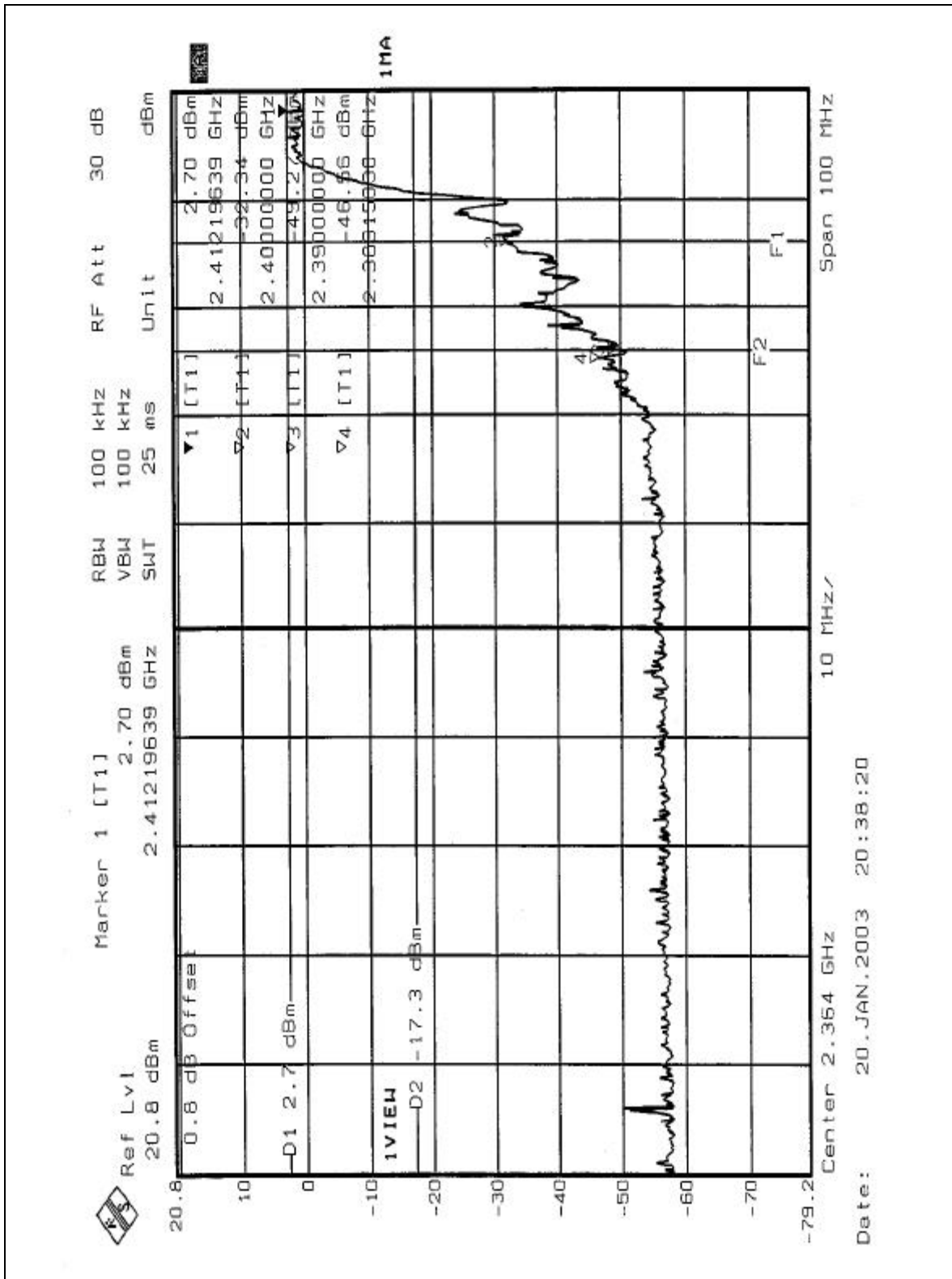
#### 4.6.6 TEST RESULTS (For CCK)

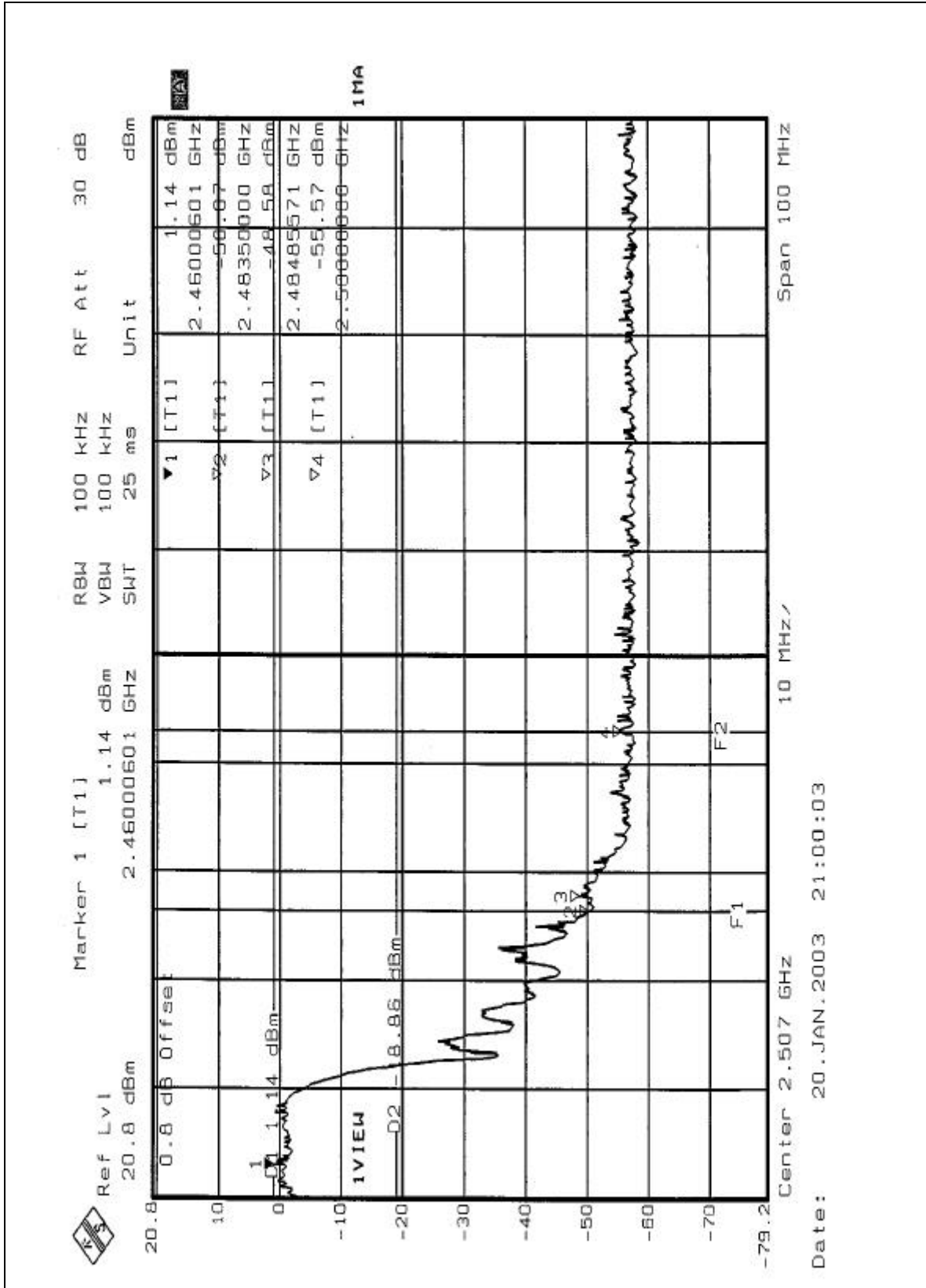
The spectrum plots are attached on the following 2 pages. D2 line indicates the highest level, D1 line indicates the 20dB offset below D2. It shows compliance with the requirement in part 15.247(C).

**NOTE:**

The band edge emission plot on the following first pages shows 49.26dB 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 4.2.7 is 102.6dBuV/m, so the maximum field strength in restrict band is  $102.6-49.26=53.34$ dBuV/m which is under 54 dBuV/m limit.

The band edge emission plot on the following second pages shows 49.72dB delta between carrier maximum power and local maximum emission in restrict band (2.4849GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 99.2dBuV/m, so the maximum field strength in restrict band is  $99.2-49.72=49.48$ dBuV/m which is under 54 dBuV/m limit.







#### 4.6.7 TEST RESULTS (For OFDM)

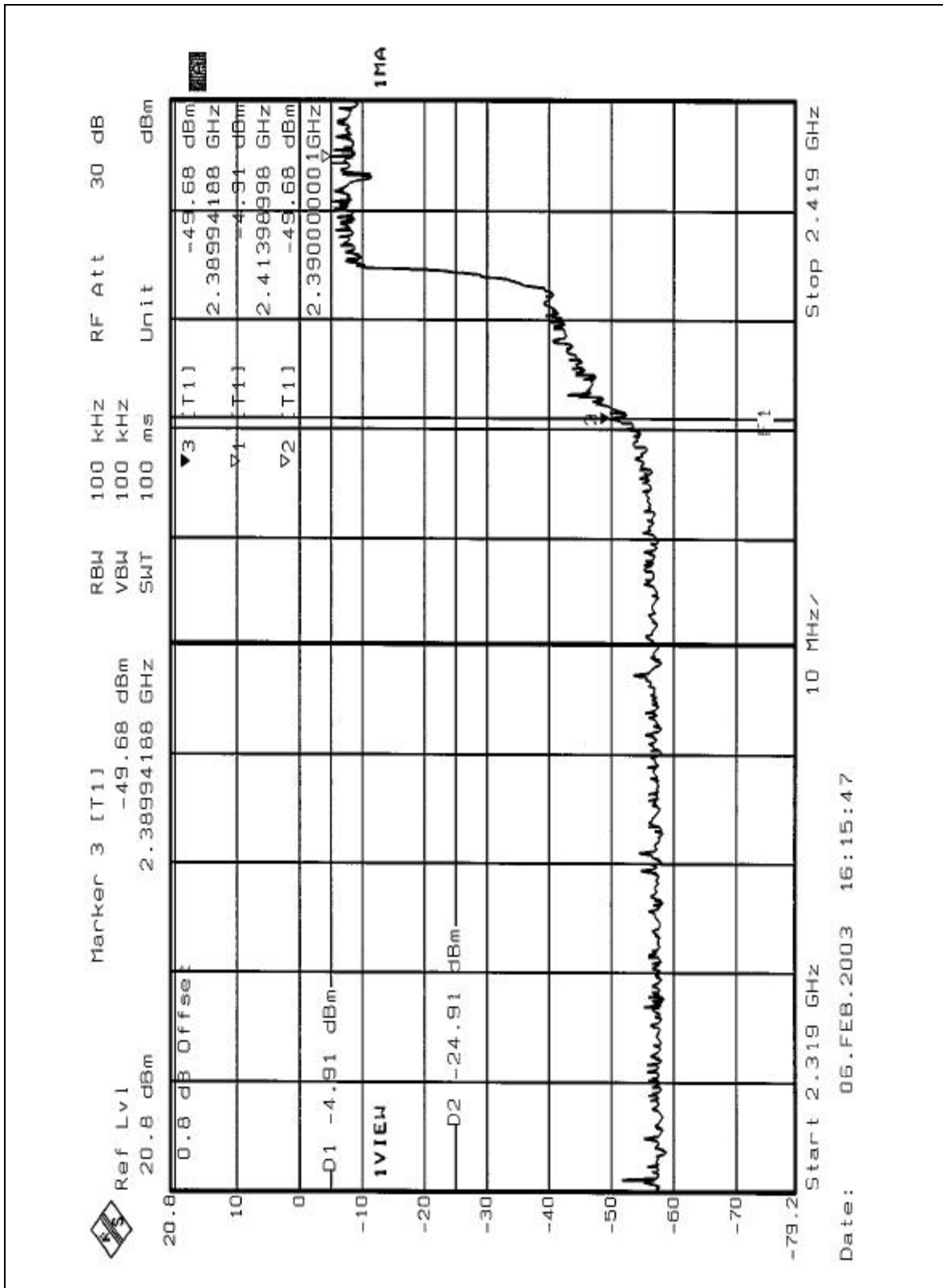
The spectrum plots are attached on the following 2 pages. D2 line indicates the highest level, D1 line indicates the 20dB offset below D2. It shows compliance with the requirement in part 15.247(C).

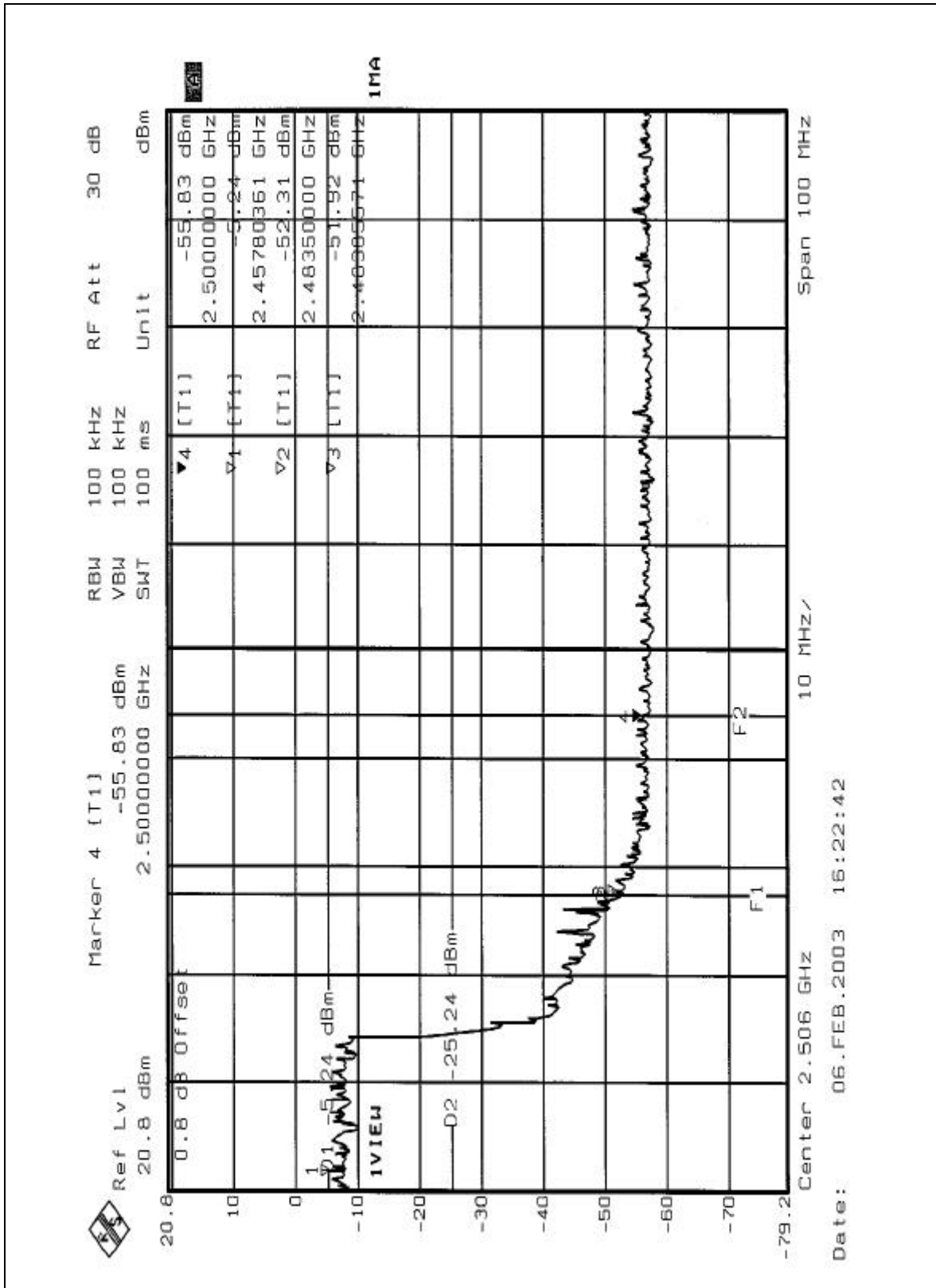
**NOTE:**

The band edge emission plot on the following first pages shows 44.77dB delta between carrier maximum power and local maximum emission in restrict band (2.3899GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.8 is 85.0dBuV/m, so the maximum field strength in restrict band is  $85.0 - 44.77 = 40.23$  dBuV/m which is under 54 dBuV/m limit.

The band edge emission plot on the following second pages shows 46.68dB delta between carrier maximum power and local maximum emission in restrict band (2.4837GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.8 is 83.7dBuV/m, so the maximum field strength in restrict band is  $83.7 - 46.68 = 37.02$  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 maximum Gain antenna used in this product is Chip antenna without antenna connector. And the maximum Gain of the antenna is 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 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
<b>Germany</b>	TUV Rheinland
<b>Japan</b>	VCCI
<b>New Zealand</b>	MoC
<b>Norway</b>	NEMKO
<b>R.O.C.</b>	BSMI, DGT, CNLA

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).

If you have any comments, please feel free to contact us at the following:

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**Web Site:** [www.adt.com.tw](http://www.adt.com.tw)

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