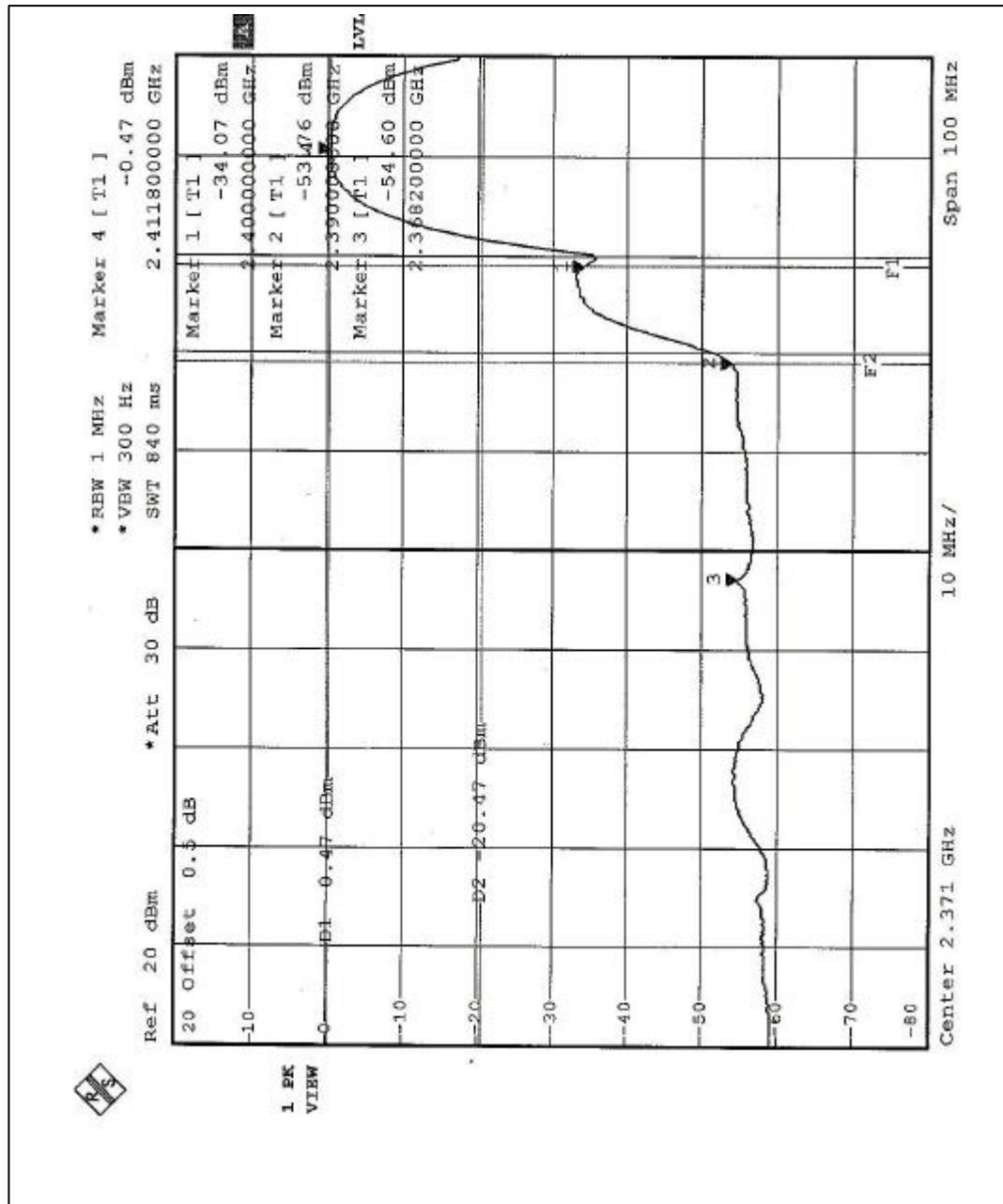
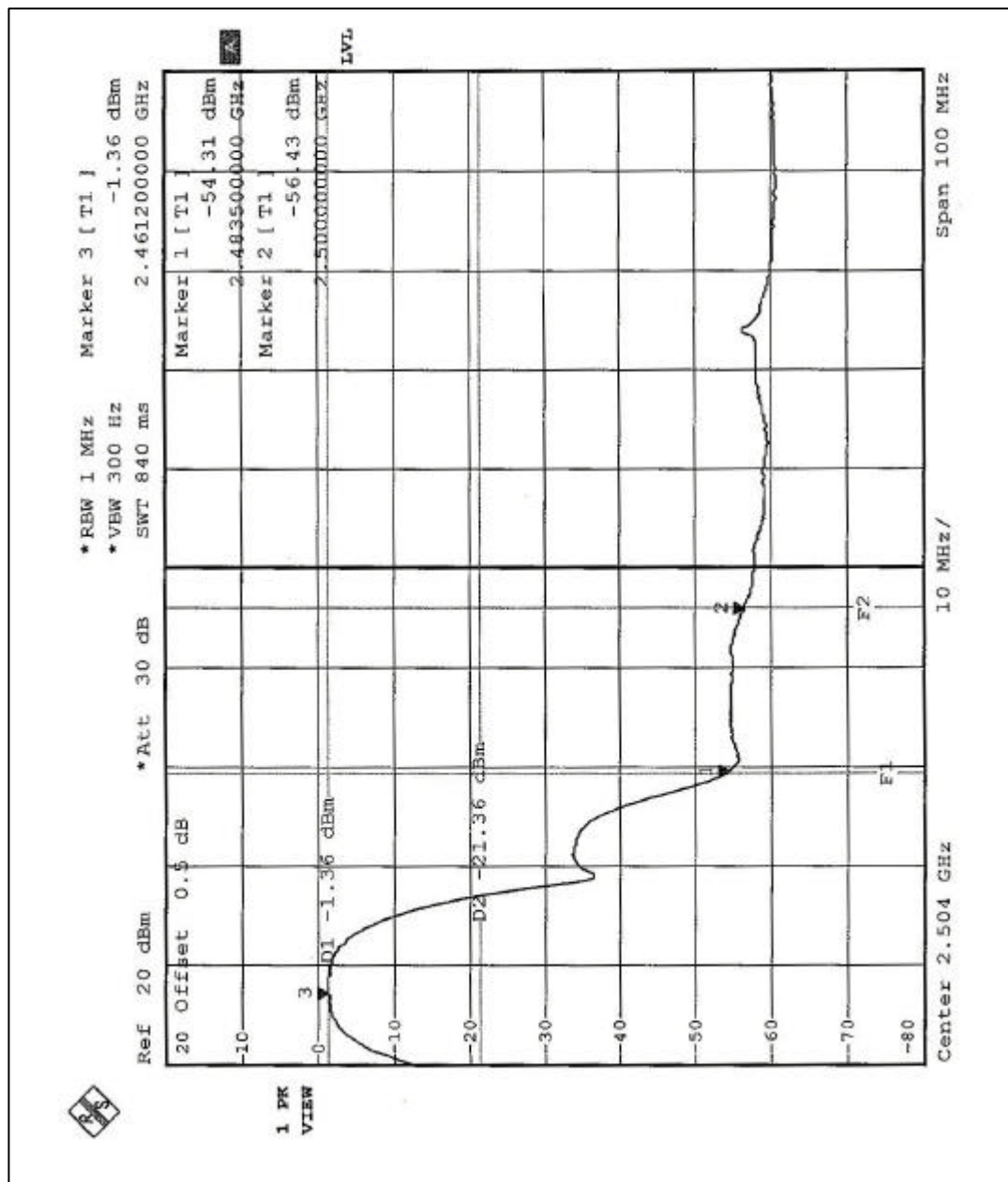






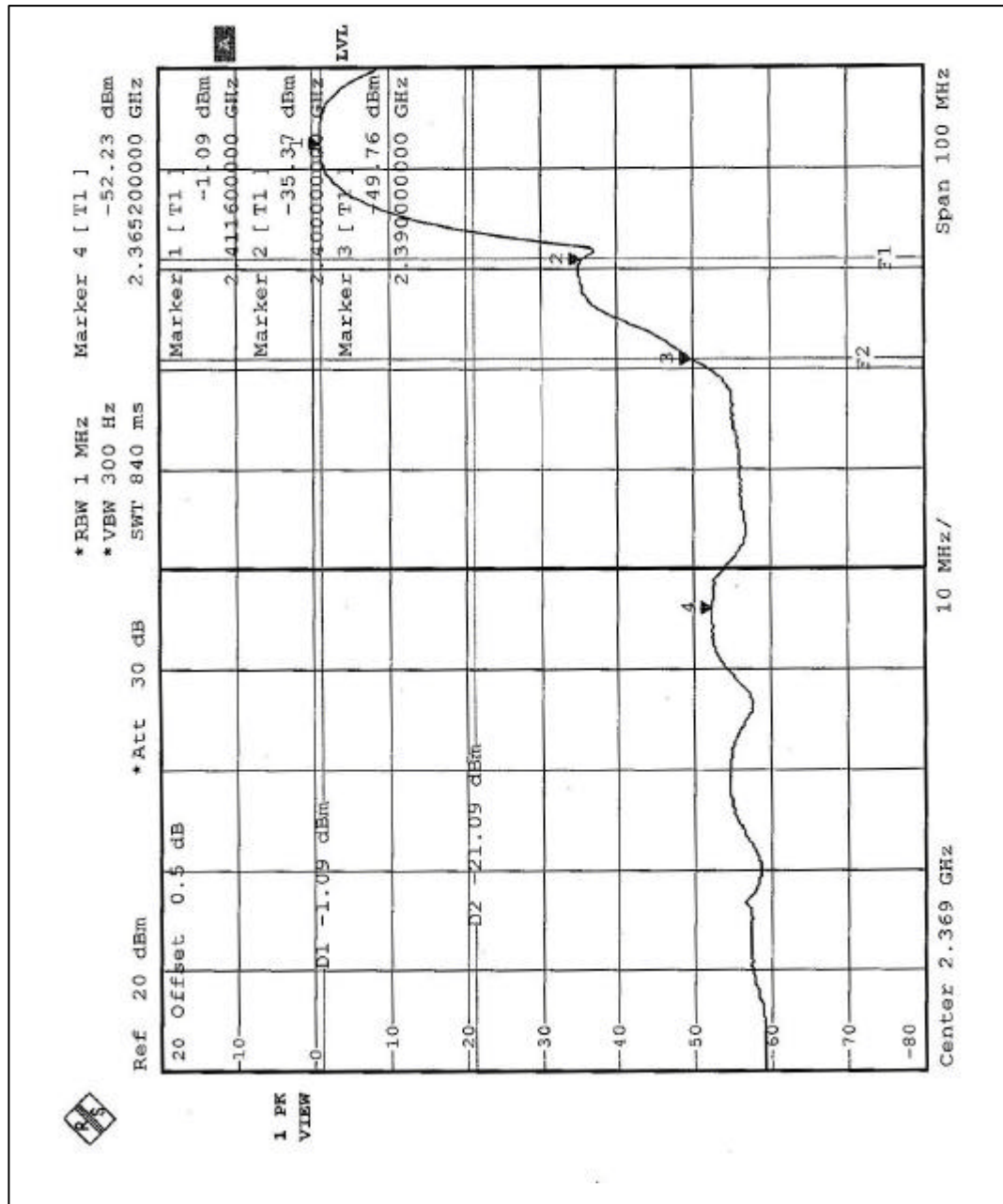


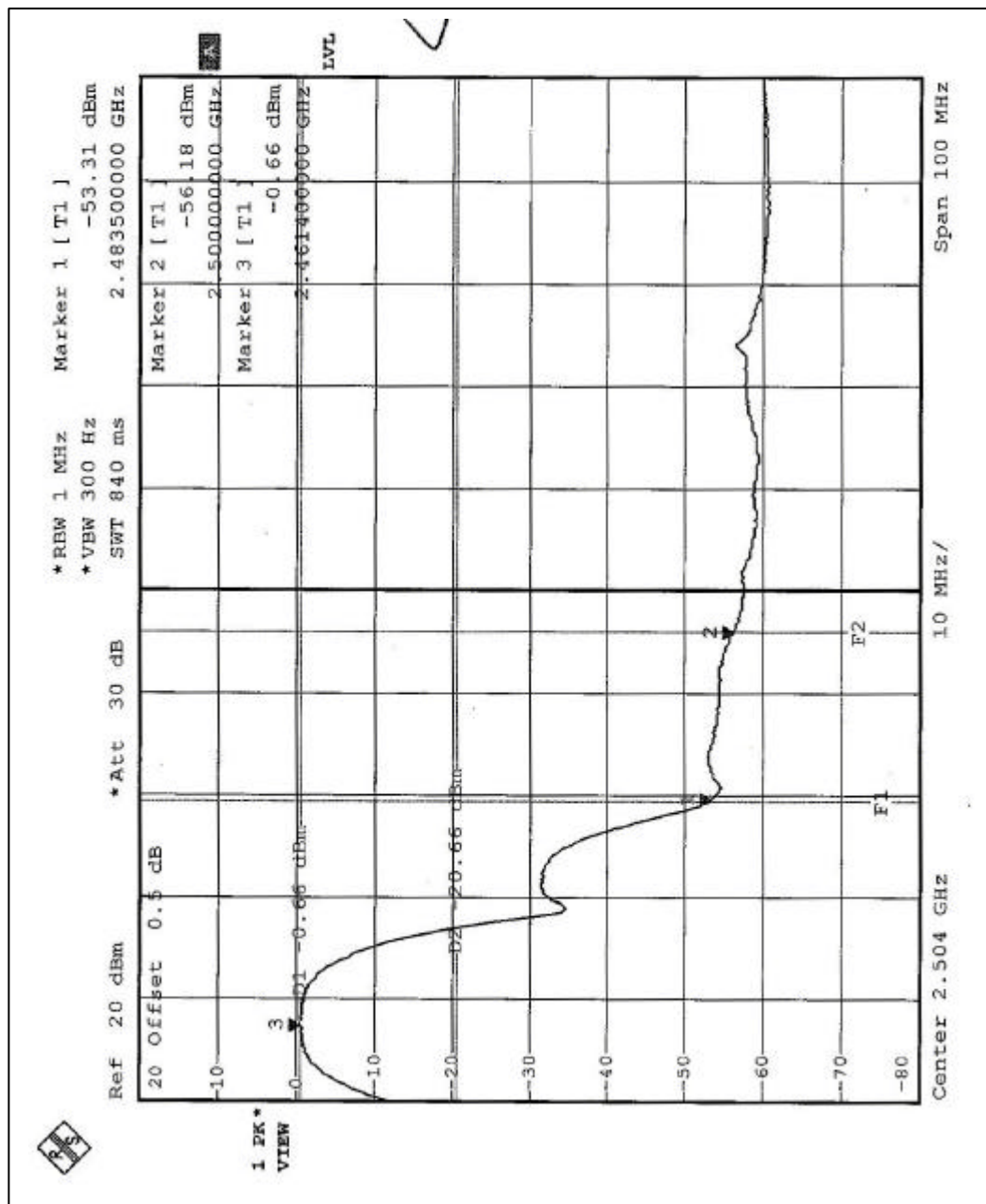
#### 4.6.7 TEST RESULTS – DSSS (Antenna 3)

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 48.67dB 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 101.4dBuV/m, so the maximum field strength in restrict band is  $101.4 - 48.67 = 52.73$  dBuV/m which is under 54 dBuV/m limit.

**NOTE (2):** The band edge emission plot on the following second page shows 52.65dB 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 104.8dBuV/m, so the maximum field strength in restrict band is  $104.8 - 52.65 = 52.15$  dBuV/m which is under 54 dBuV/m limit.







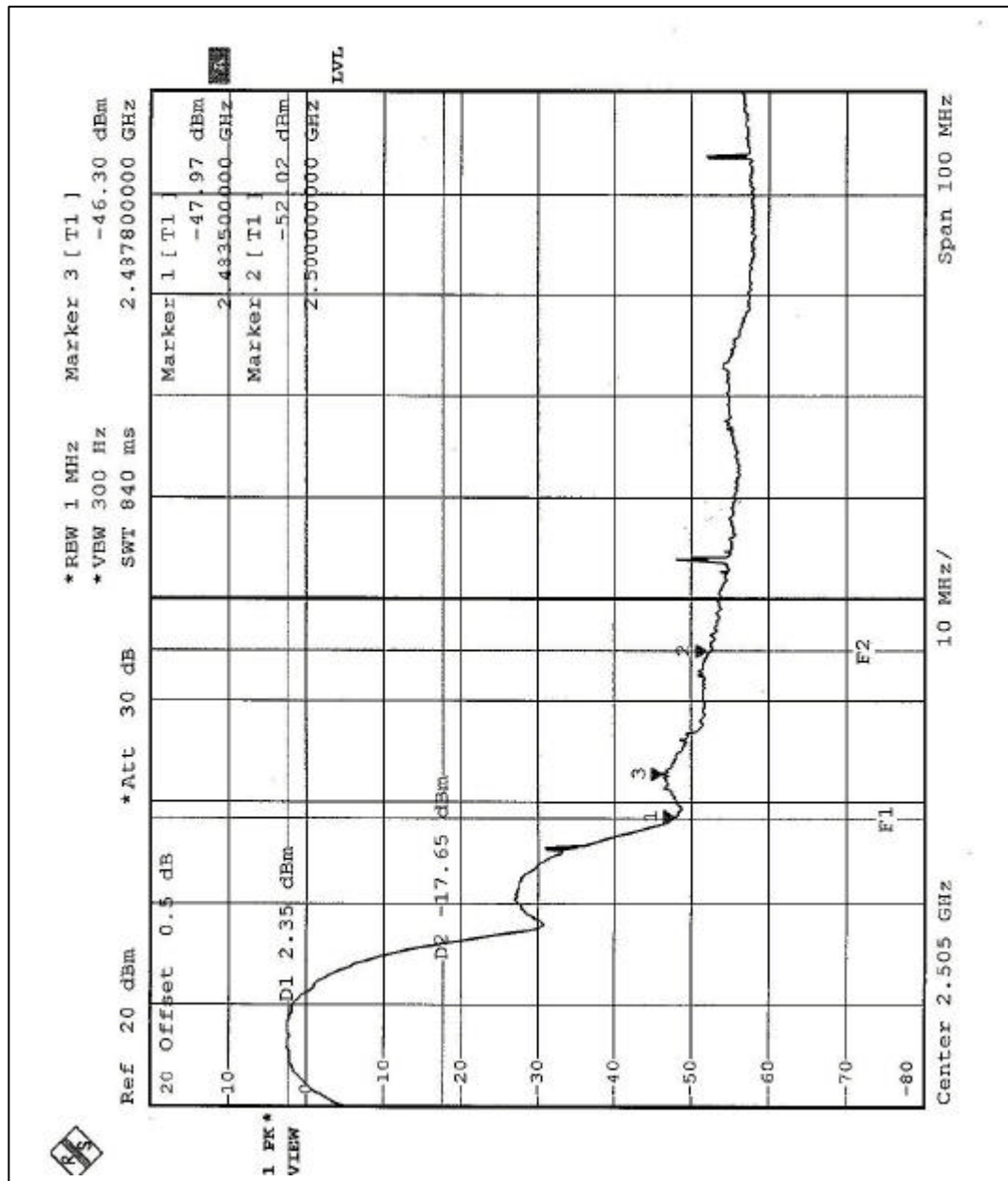
#### 4.6.8 TEST RESULTS – DSSS (Antenna 4)

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 46.16dB delta between carrier maximum power and local maximum emission in restrict band (2.3874GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 99.5dBuV/m, so the maximum field strength in restrict band is  $99.5 - 46.16 = 53.34$  dBuV/m which is under 54 dBuV/m limit.

**NOTE (2):** The band edge emission plot on the following second page shows 48.65dB delta between carrier maximum power and local maximum emission in restrict band (2.4878GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 100.7dBuV/m, so the maximum field strength in restrict band is  $100.7 - 48.65 = 52.05$  dBuV/m which is under 54 dBuV/m limit.





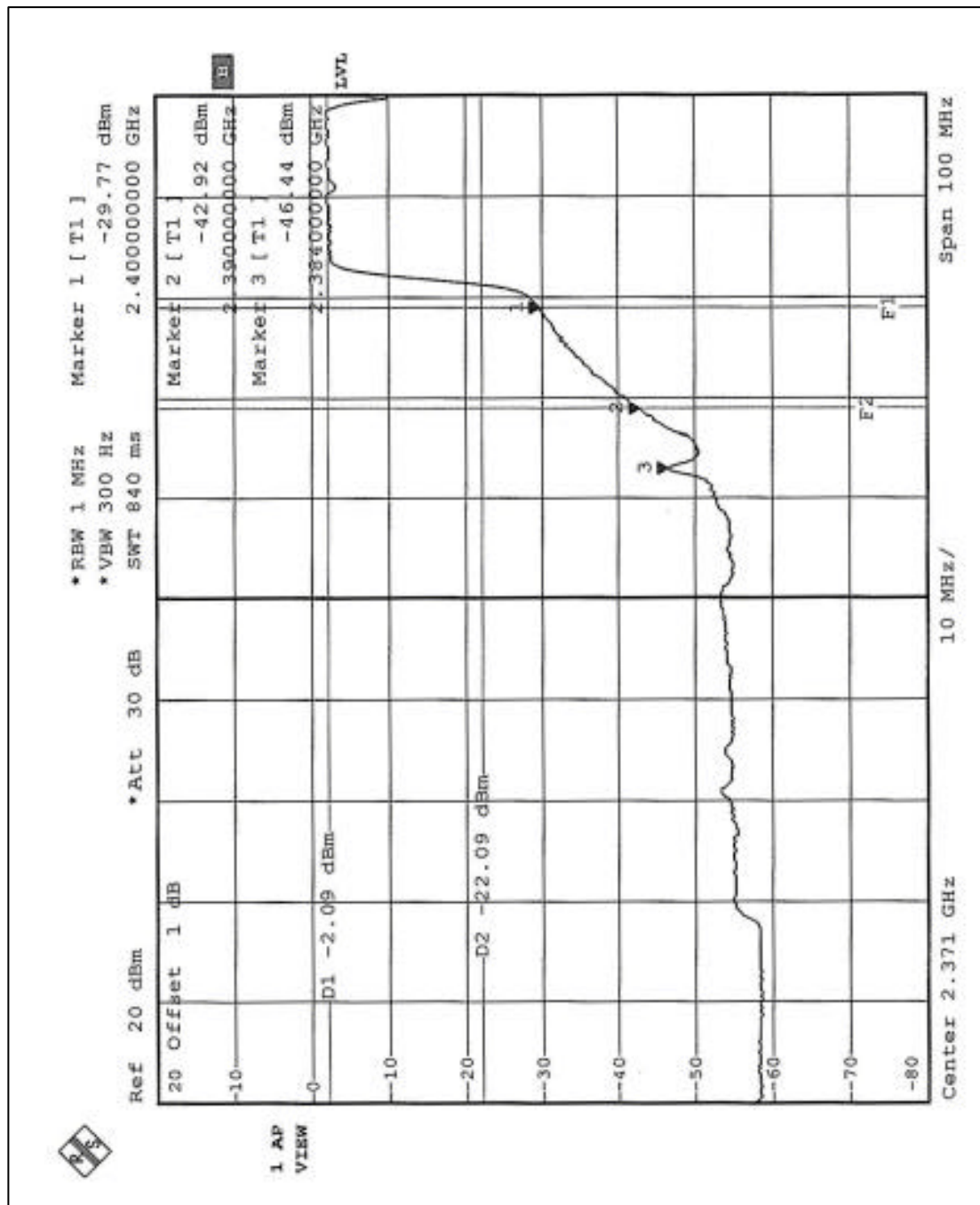


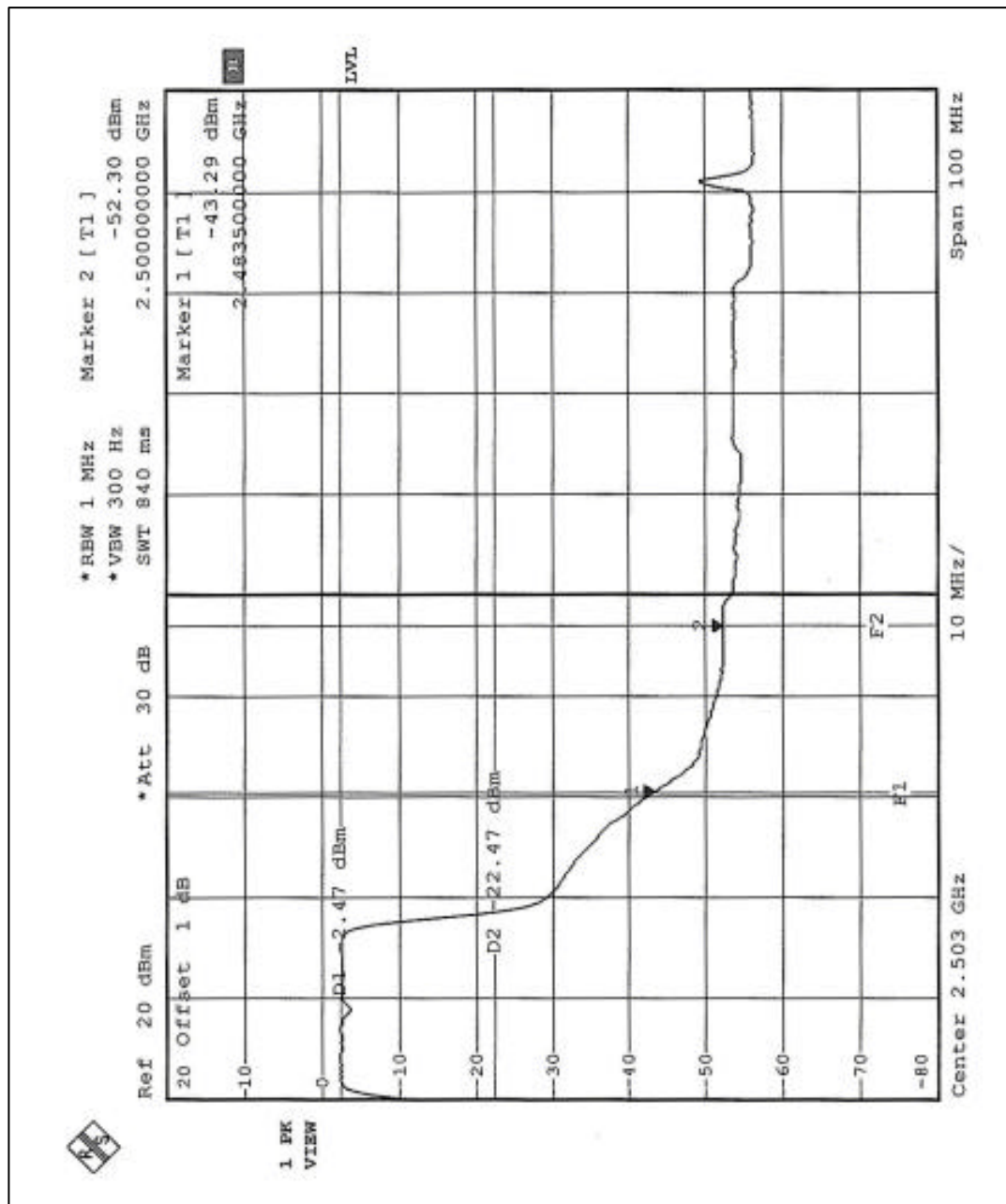
#### 4.6.9 TEST RESULTS-OFDM (Antenna 1)

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 40.83dB 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 92.6dBuV/m, so the maximum field strength in restrict band is  $92.6 - 40.83 = 51.77$  dBuV/m which is under 54 dBuV/m limit.

**NOTE (2):** The band edge emission plot on the following second page shows 40.82dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.8 is 92.6dBuV/m, so the maximum field strength in restrict band is  $92.6 - 40.82 = 51.78$  dBuV/m which is under 54 dBuV/m limit.





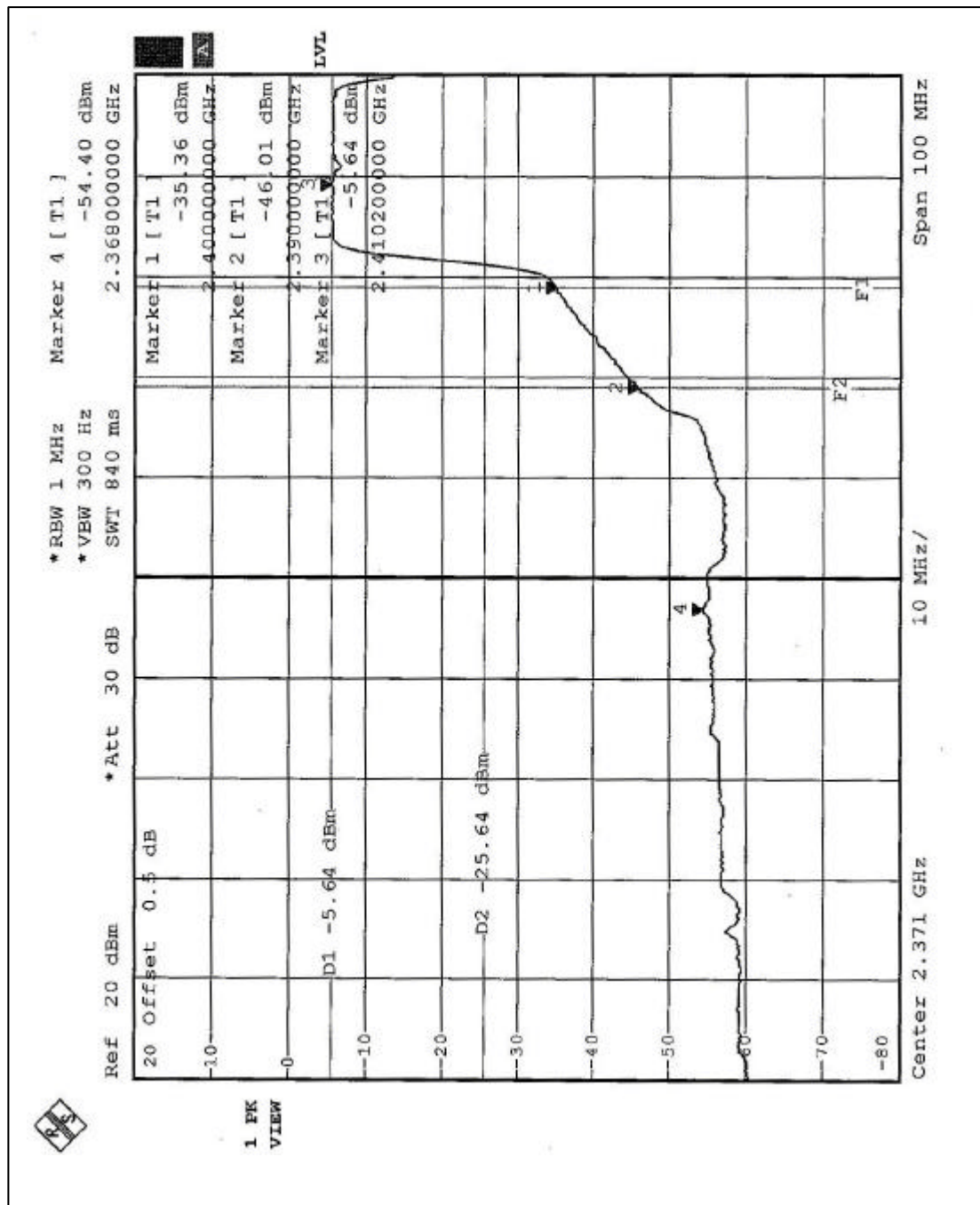


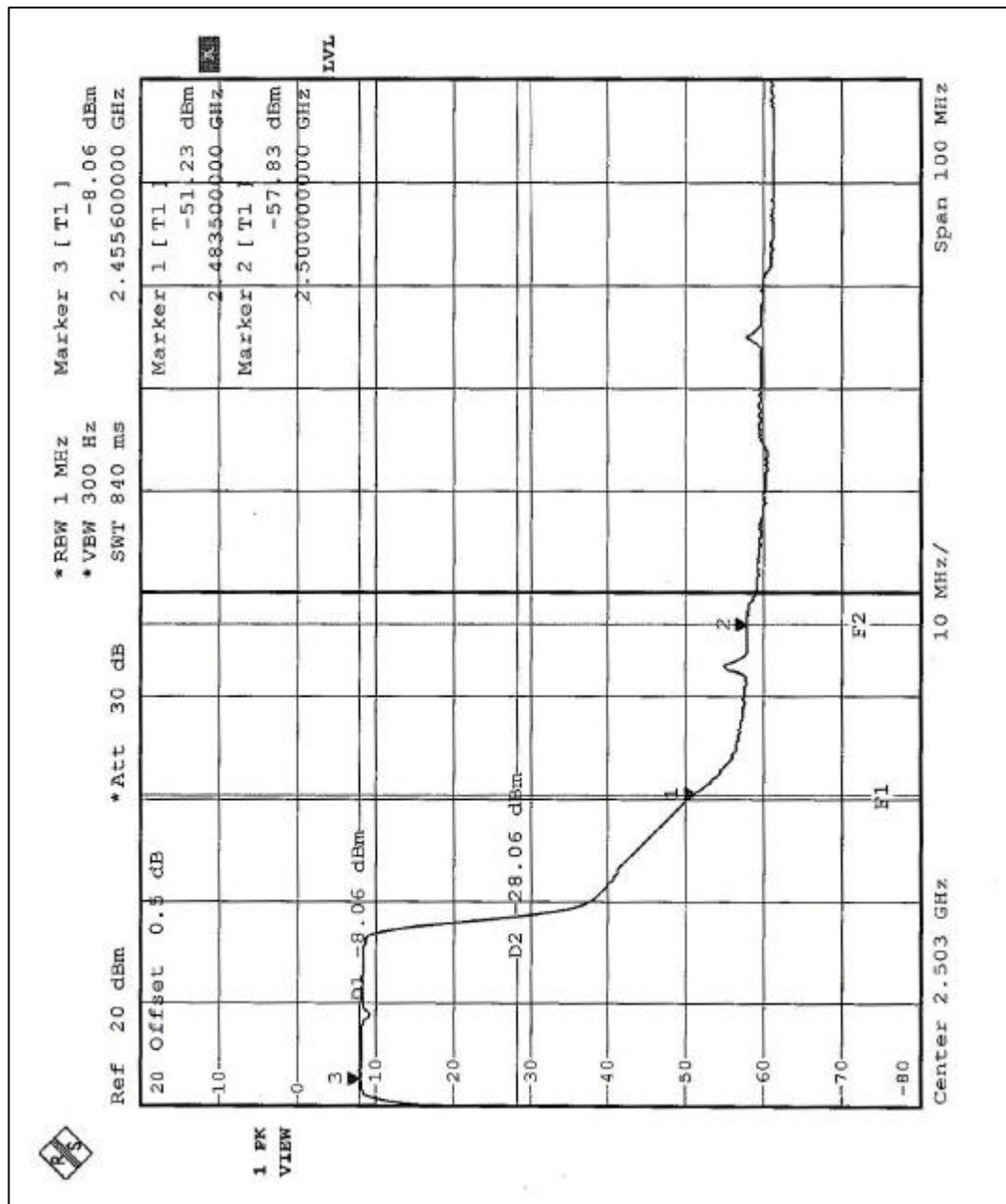
#### 4.6.10 TEST RESULTS-OFDM (Antenna 2)

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 40.37dB 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 93.8dBuV/m, so the maximum field strength in restrict band is  $93.8 - 40.37 = 53.43$  dBuV/m which is under 54 dBuV/m limit.

**NOTE (2):** The band edge emission plot on the following second page shows 43.17dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.8 is 96.6dBuV/m, so the maximum field strength in restrict band is  $96.6 - 43.17 = 53.43$  dBuV/m which is under 54 dBuV/m limit.





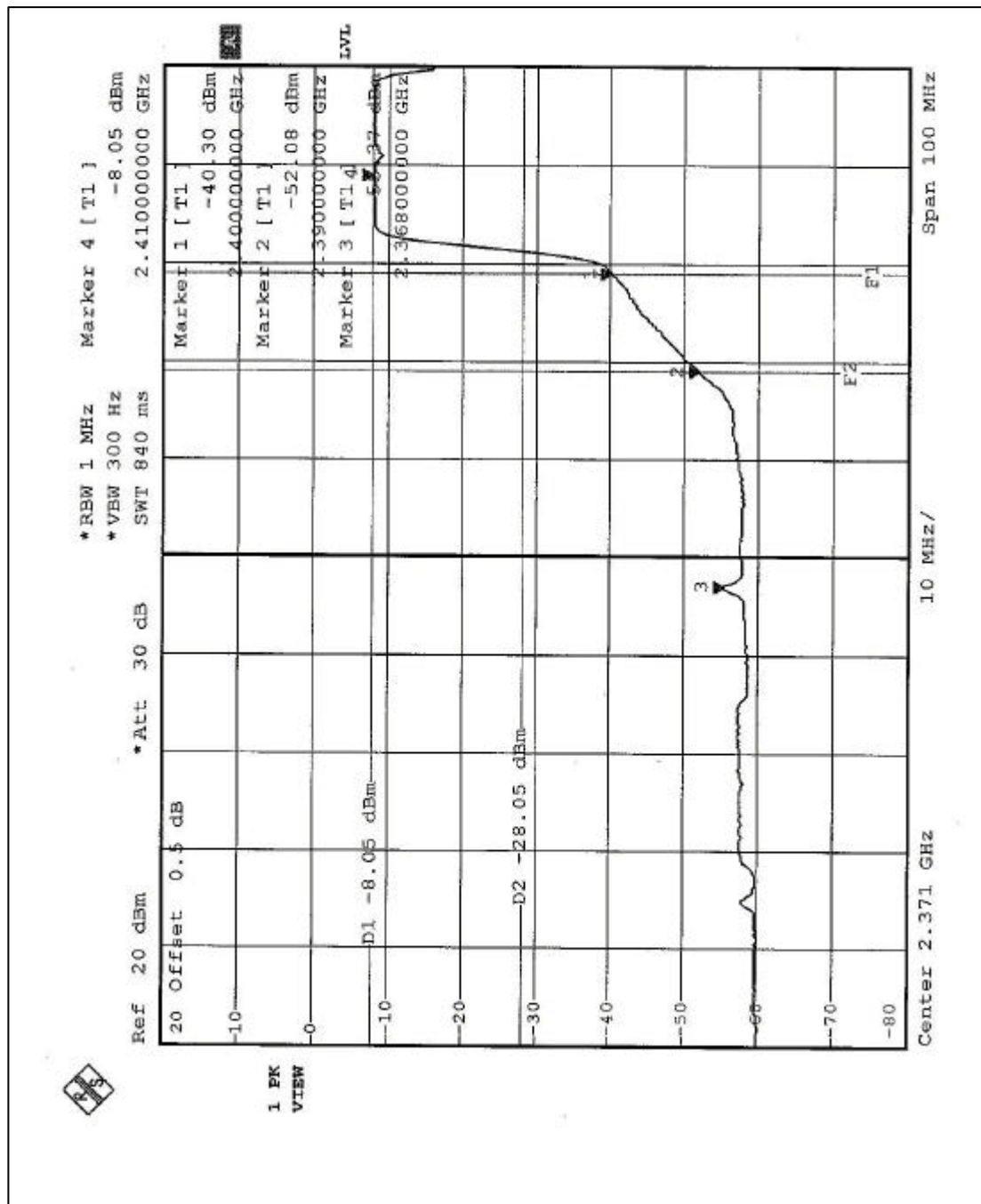


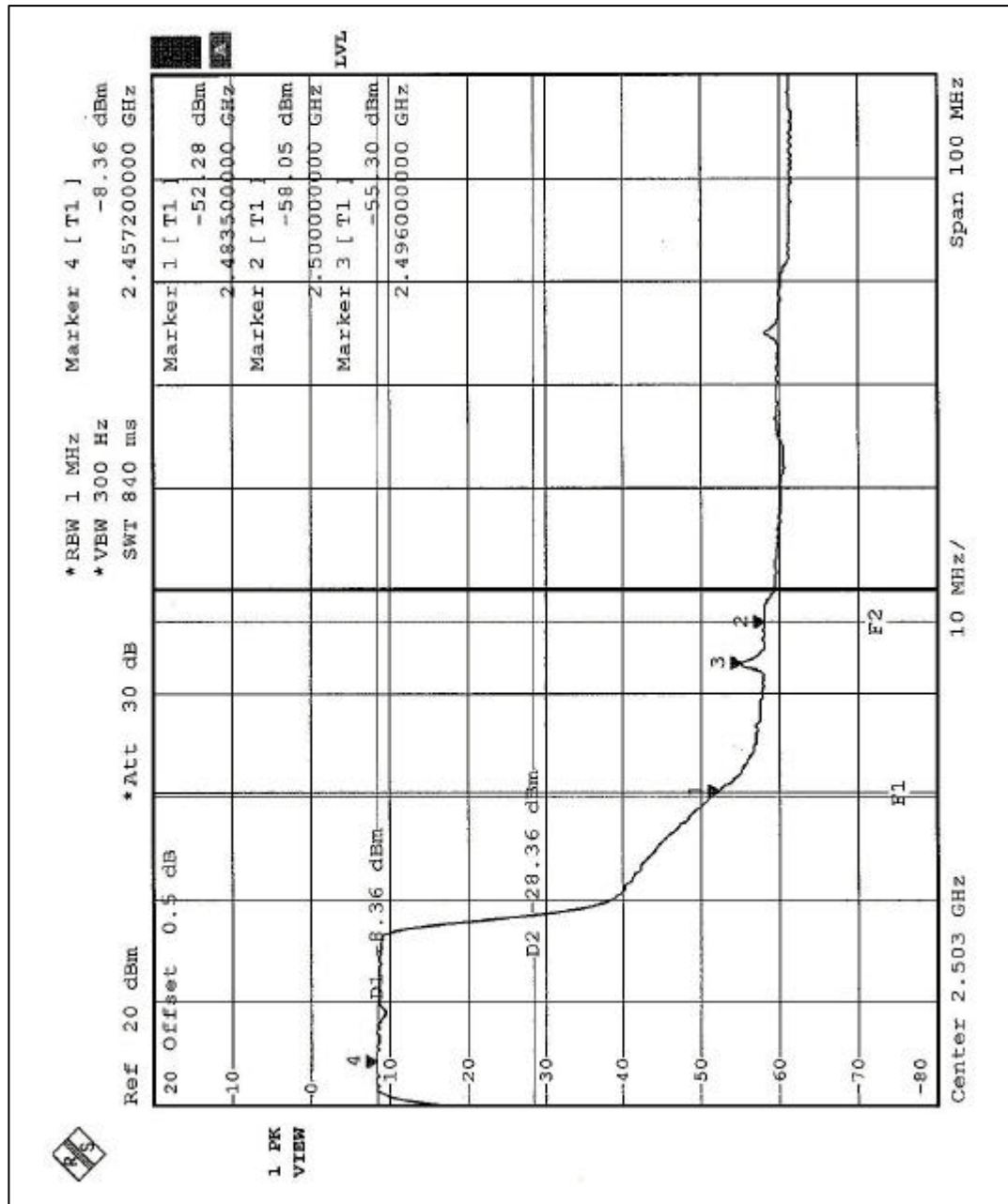
#### 4.6.11 TEST RESULTS-OFDM (Antenna 3)

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 44.03dB 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 95.2dBuV/m, so the maximum field strength in restrict band is  $95.2 - 44.03 = 51.17$  dBuV/m which is under 54 dBuV/m limit.

**NOTE (2):** The band edge emission plot on the following second page shows 43.92dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.8 is 97.0dBuV/m, so the maximum field strength in restrict band is  $97.0 - 43.92 = 53.08$  dBuV/m which is under 54 dBuV/m limit.





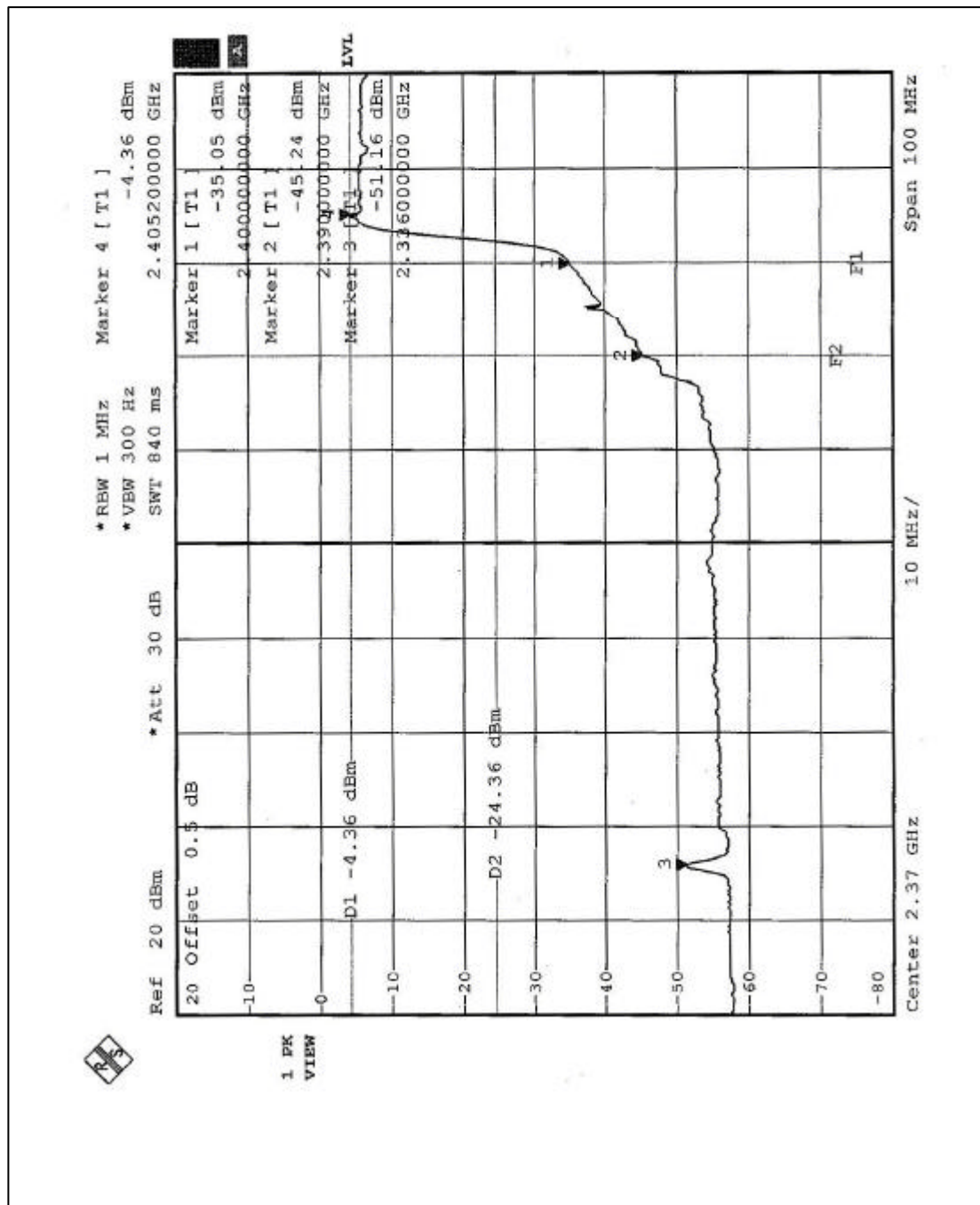


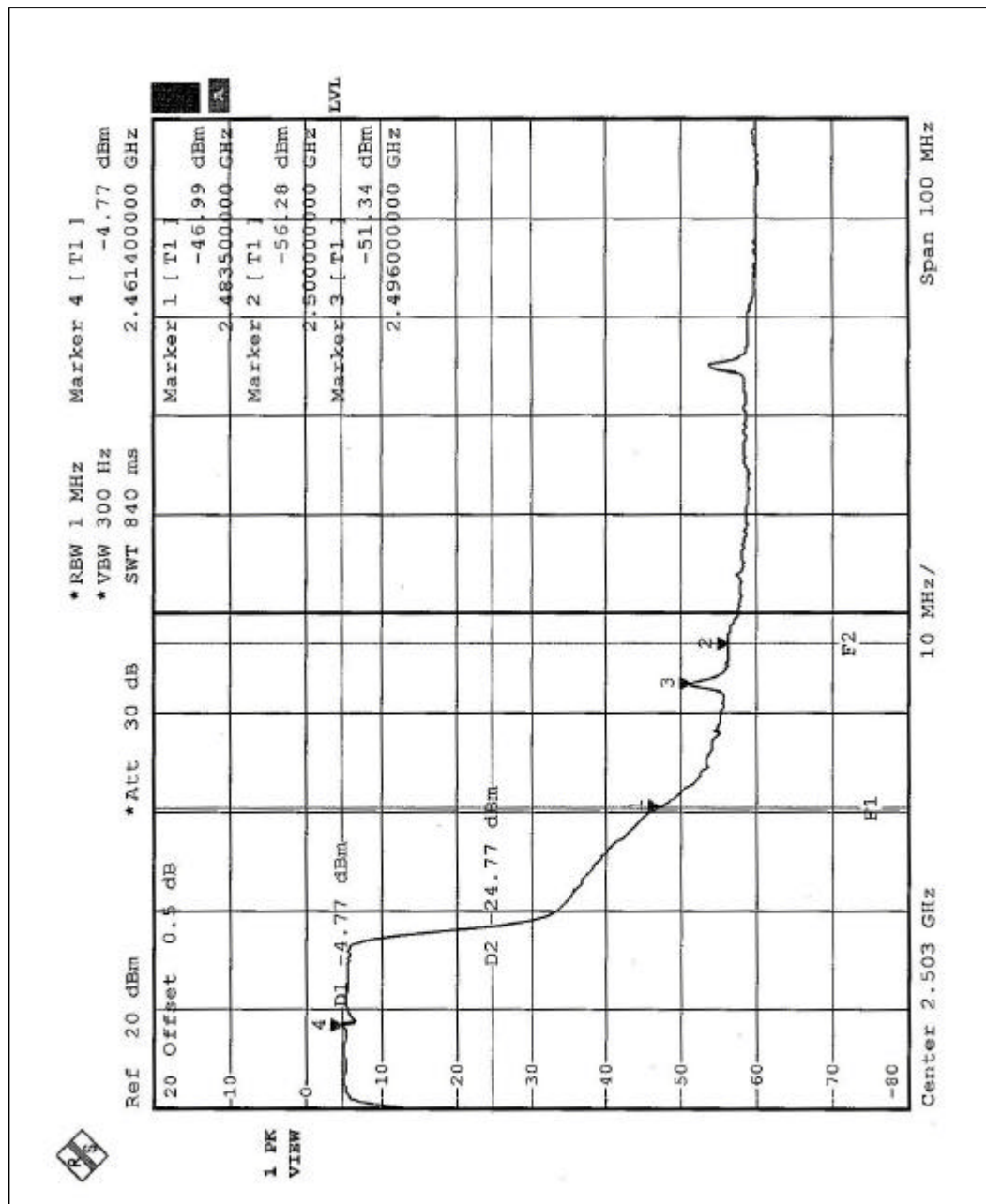
#### 4.6.12 TEST RESULTS-OFDM (Antenna 4)

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 40.88dB 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 93.1dBuV/m, so the maximum field strength in restrict band is  $93.1 - 40.88 = 52.22$  dBuV/m which is under 54 dBuV/m limit.

**NOTE (2):** The band edge emission plot on the following second page shows 42.22dB delta between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.8 is 92.6dBuV/m, so the maximum field strength in restrict band is  $92.6 - 42.22 = 50.38$  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 antennas used in this product are Detachable antenna with SMA connector and Sector-Panel, Omnidirectional, Hallway Bidirectional Antennas with N type connector.

Antenna 1: The maximum Gain of the antenna is 1.0dBi.

Antenna 2: The maximum Gain of the antenna is 8.0dBi.

Antenna 3: The maximum Gain of the antenna is 8.0dBi.

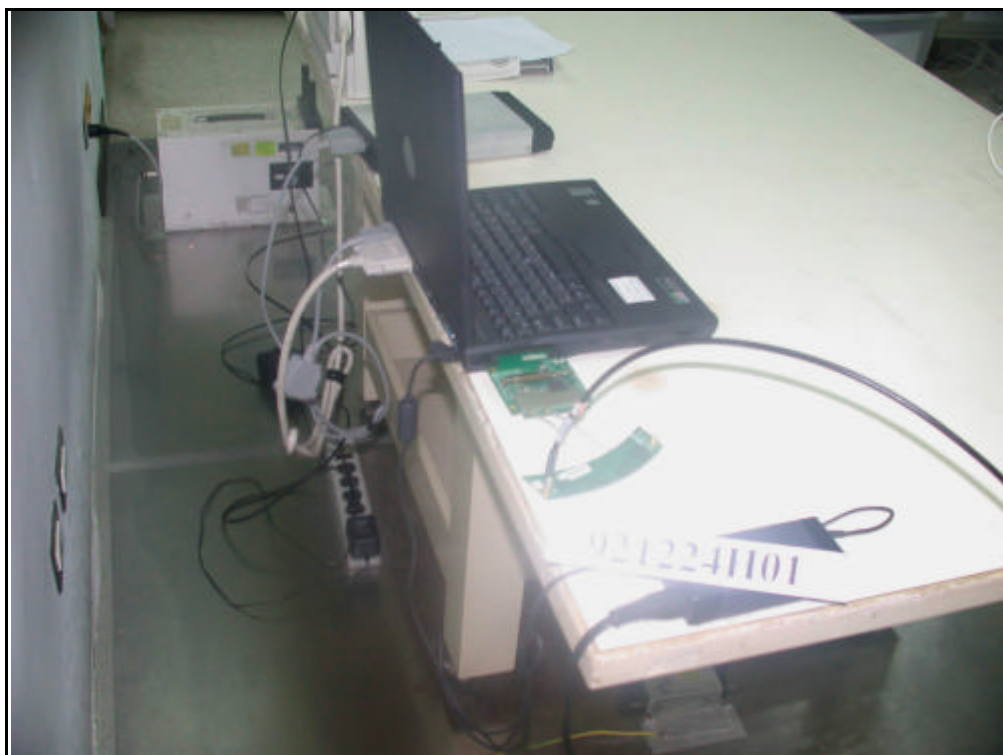
Antenna 4: The maximum Gain of the antenna is 4.0dBi.

## 5 PHOTOGRAPHS OF THE TEST CONFIGURATION

### CONDUCTED EMISSION TEST (Antenna 1)



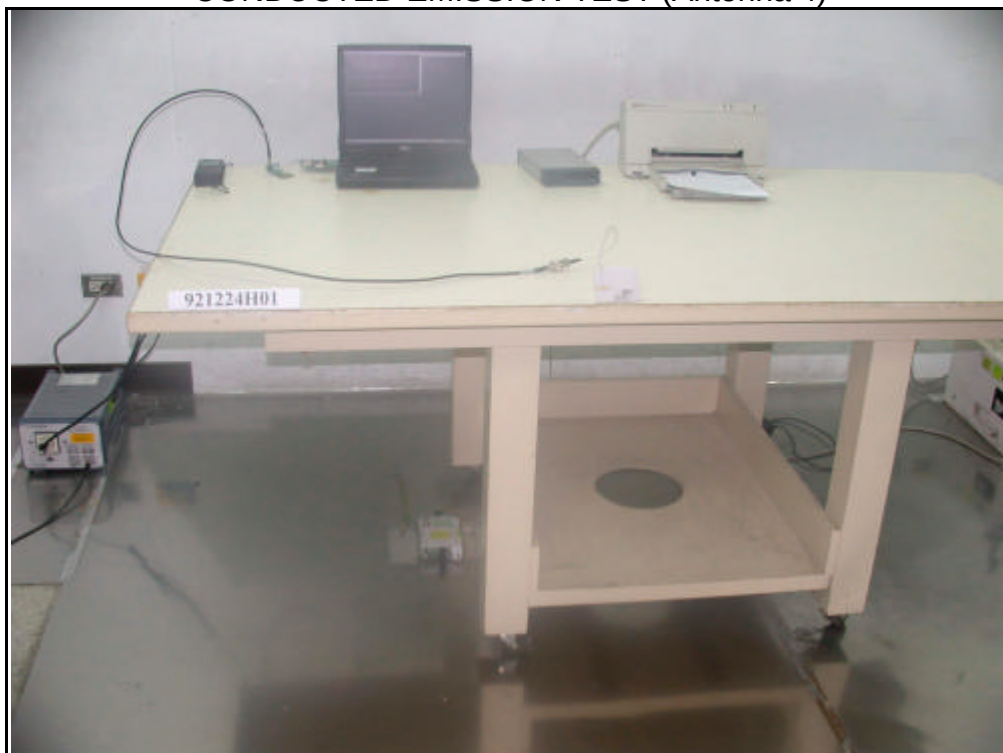
### CONDUCTED EMISSION TEST (Antenna 2)



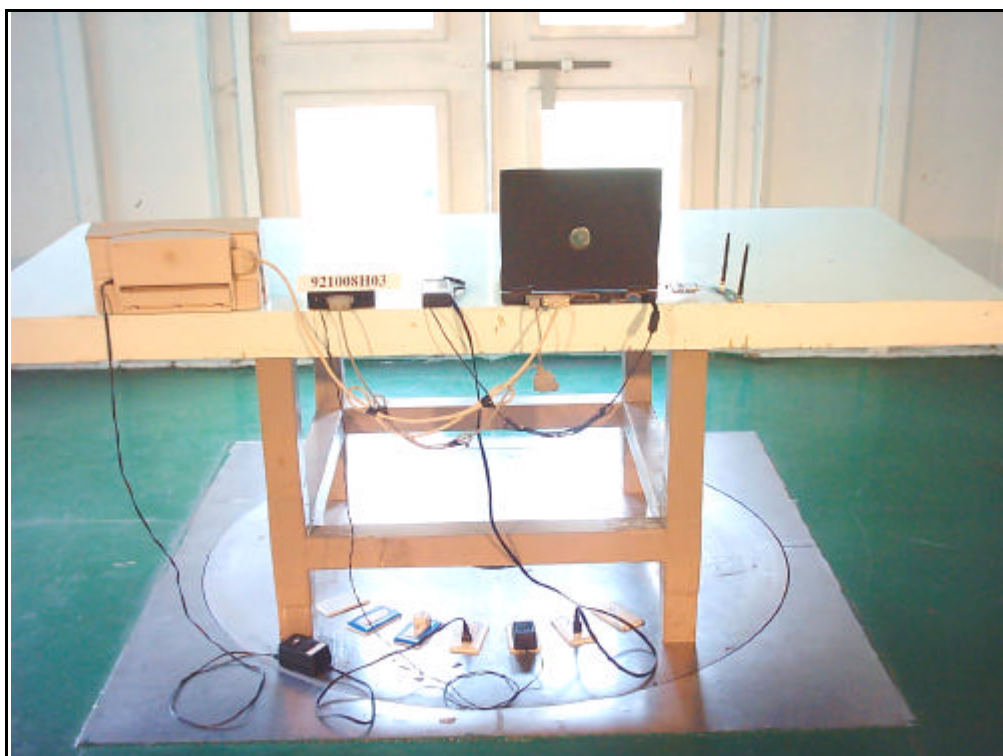
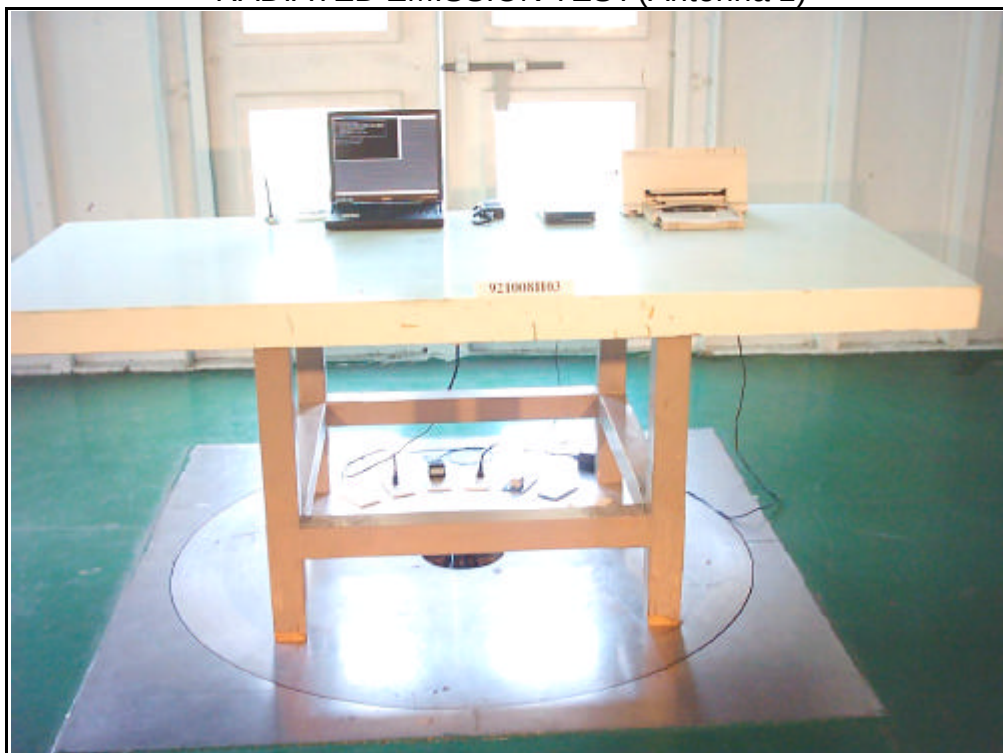
### CONDUCTED EMISSION TEST (Antenna 3)

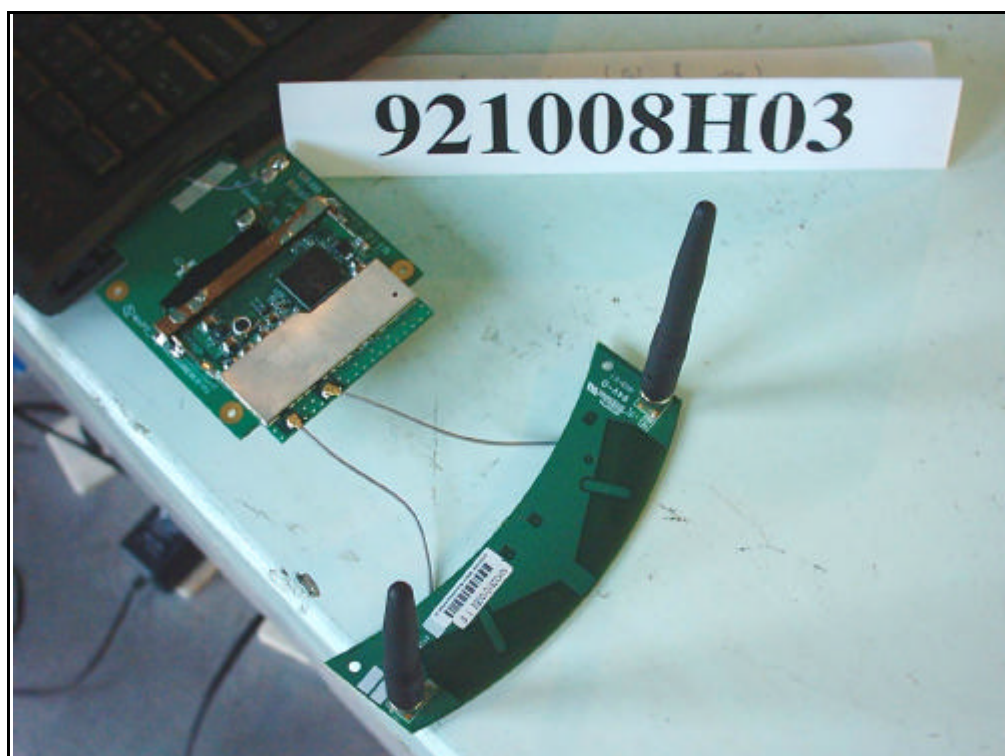


### CONDUCTED EMISSION TEST (Antenna 4)

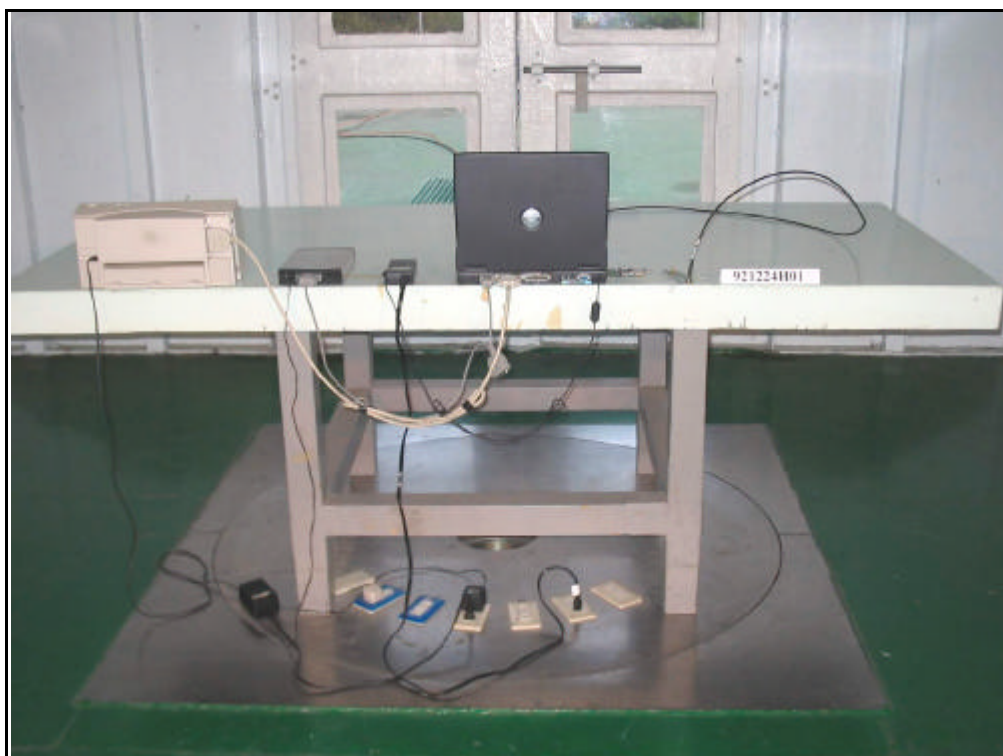


### RADIATED EMISSION TEST (Antenna 1)



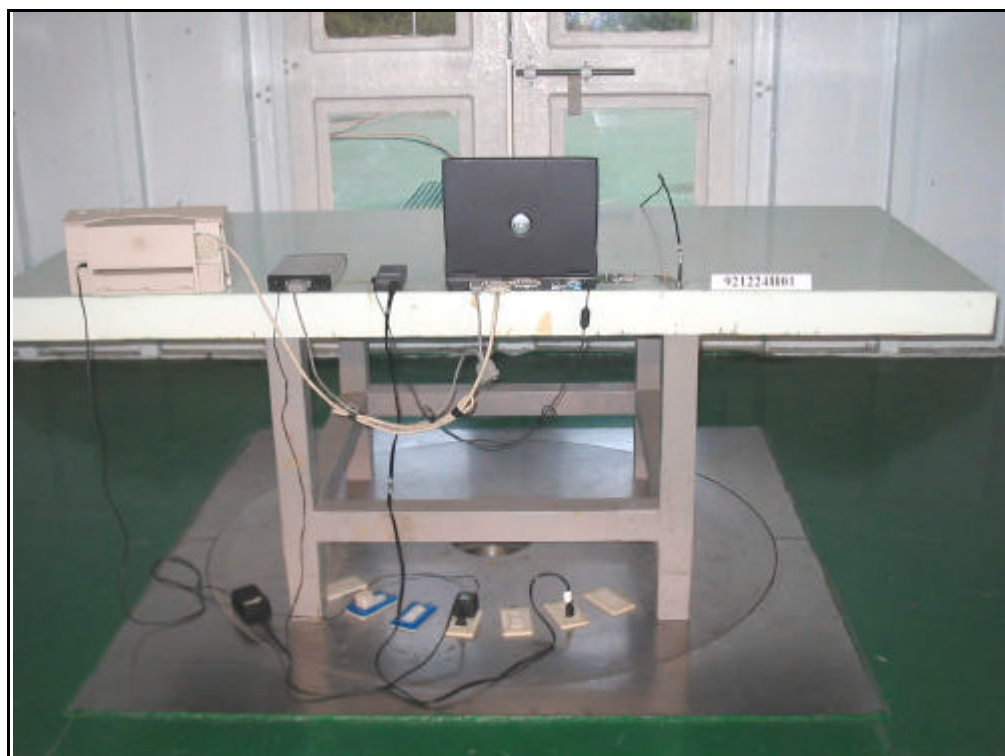


### RADIATED EMISSION TEST (Antenna 2)

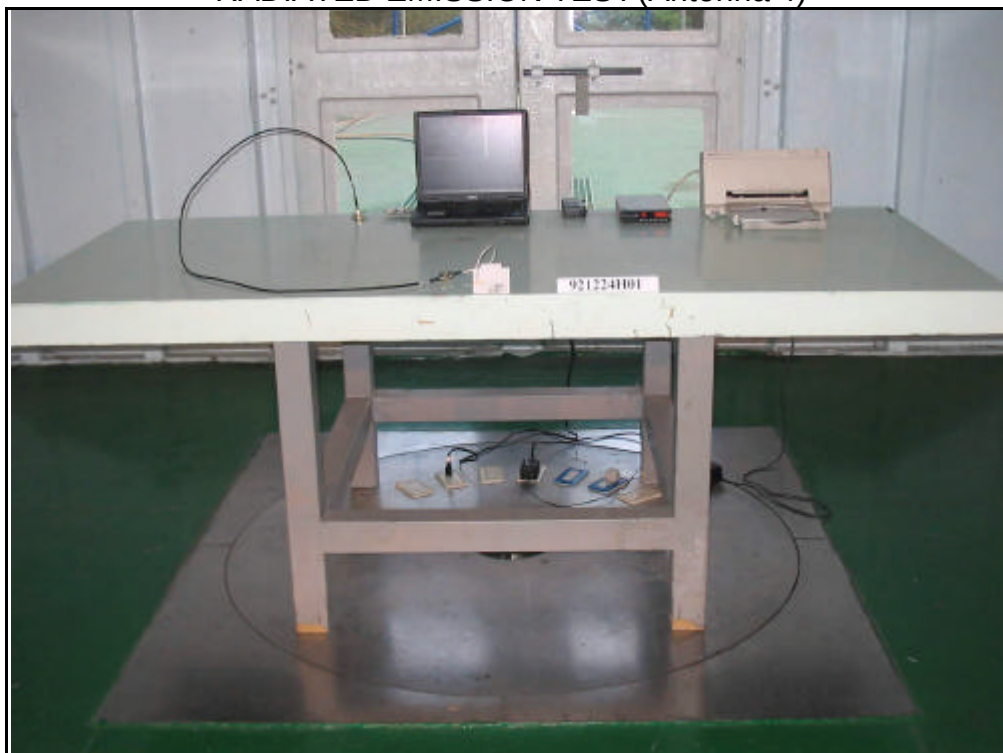




### RADIATED EMISSION TEST (Antenna 3)



### RADIATED EMISSION TEST (Antenna 4)





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