

**802.11g Turbo OFDM modulation**

EUT	108Mbps 802.11g MIMO Wireless PC Card	MODEL	TEW-601PC
MODULATION TYPE	BPSK	TRANSFER RATE	12Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	27deg. C, 63%RH, 991hPa
TESTED BY	Long Chen		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
6	2437	-16.26	8	PASS

*(The test data is in accordance with ADT Report No.: 940711L09.)



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	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.

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 100kHz with suitable frequency span including 100MHz bandwidth from band edge. The band edges was measured and recorded. The spectrum plots (Peak RBW=VBW=100kHz ; Average RBW=1MHz, VBW=10Hz) are attached on the following pages.

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

The spectrum plots are attached on the following 18 images. D2 line indicates the highest level, and D1 line indicates the 20dB offset below D2. It shows compliance with the requirement in part 15.247(d).

802.11b DSSS modulation

NOTE 1:

The band edge emission plot of DSSS technique on page 65 shows 54.04dBc between carrier maximum power and local maximum emission in restrict band (2.3880GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 111.57dBuV/m (Peak), so the maximum field strength in restrict band is $111.57 - 54.04 = 57.53$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot of DSSS technique on page 65 shows 58.15dBc 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 103.52dBuV/m (Average), so the maximum field strength in restrict band is $103.52 - 58.15 = 45.37$ dBuV/m which is under 54dBuV/m limit.

NOTE 2:

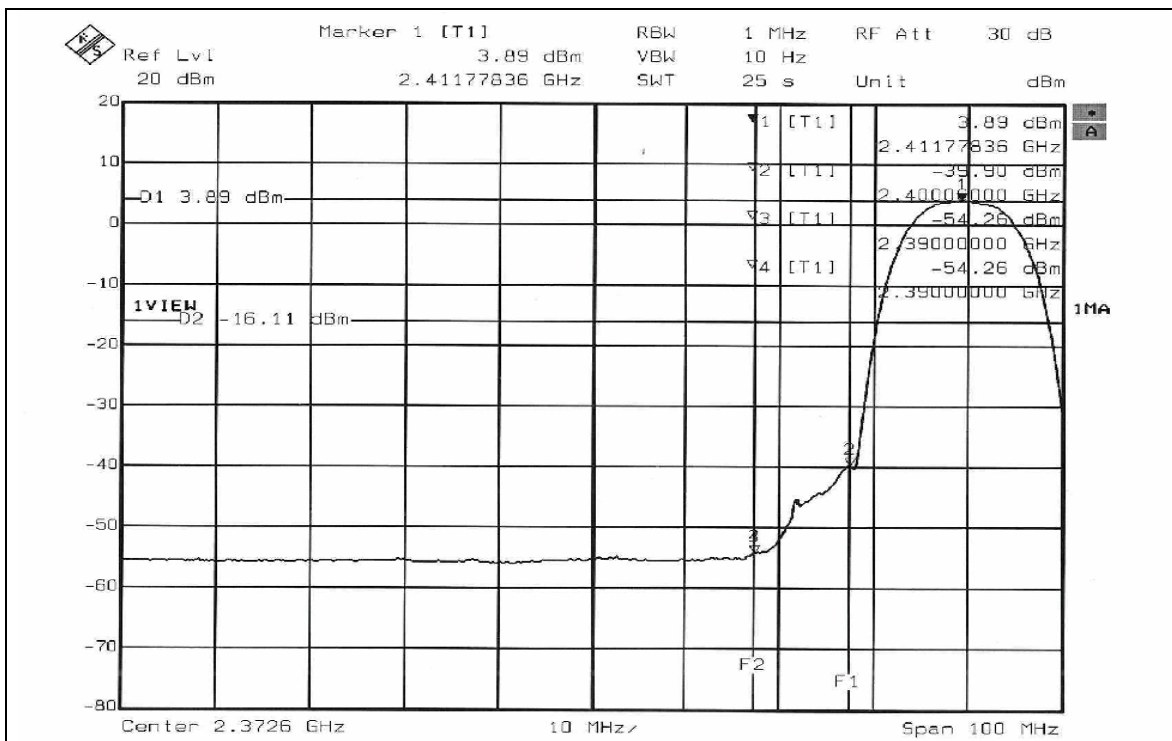
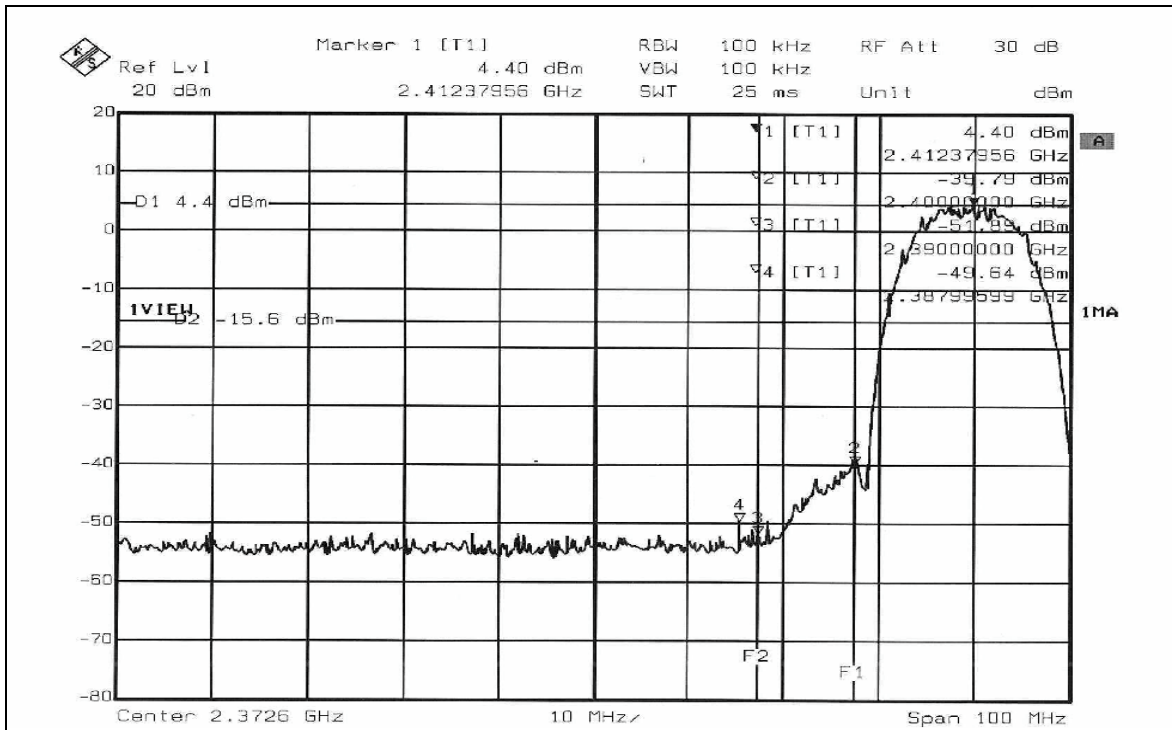
The band edge emission plot of DSSS technique on page 66 shows 57.61dBc between carrier maximum power and local maximum emission in restrict band (2.4863GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 112.47dBuV/m (Peak), so the maximum field strength in restrict band is $112.47 - 57.61 = 54.86$ dBuV/m which is under 74dBuV/m limit.

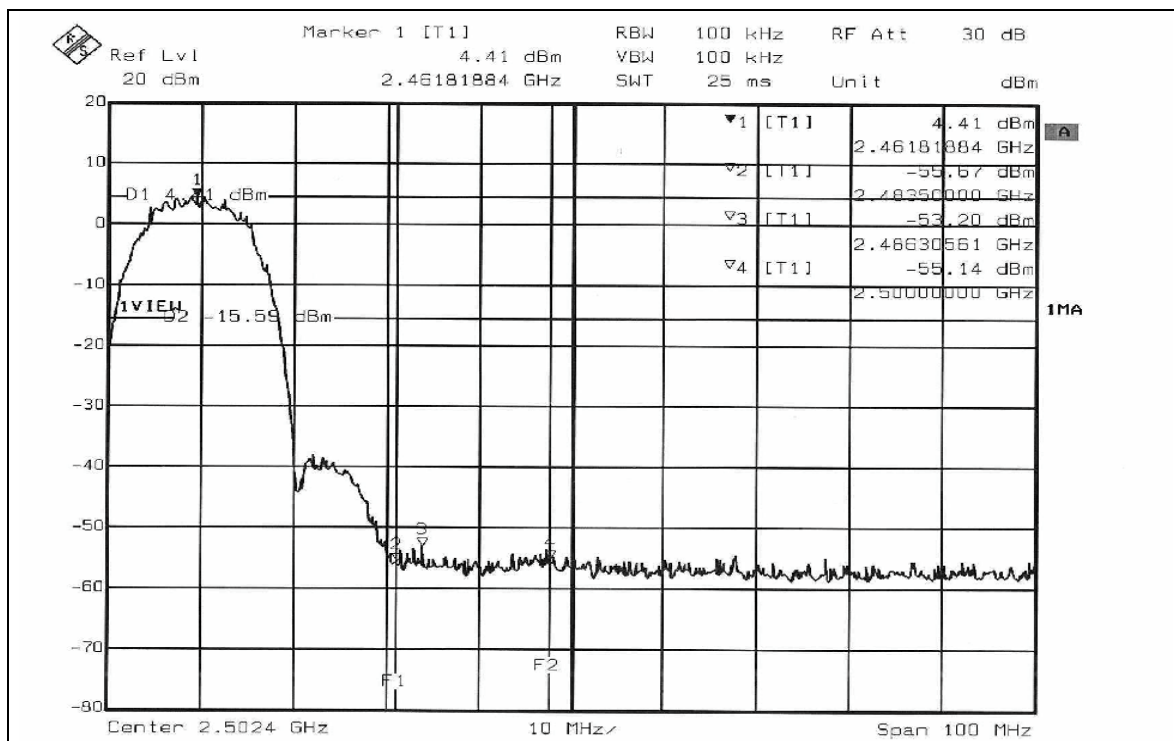
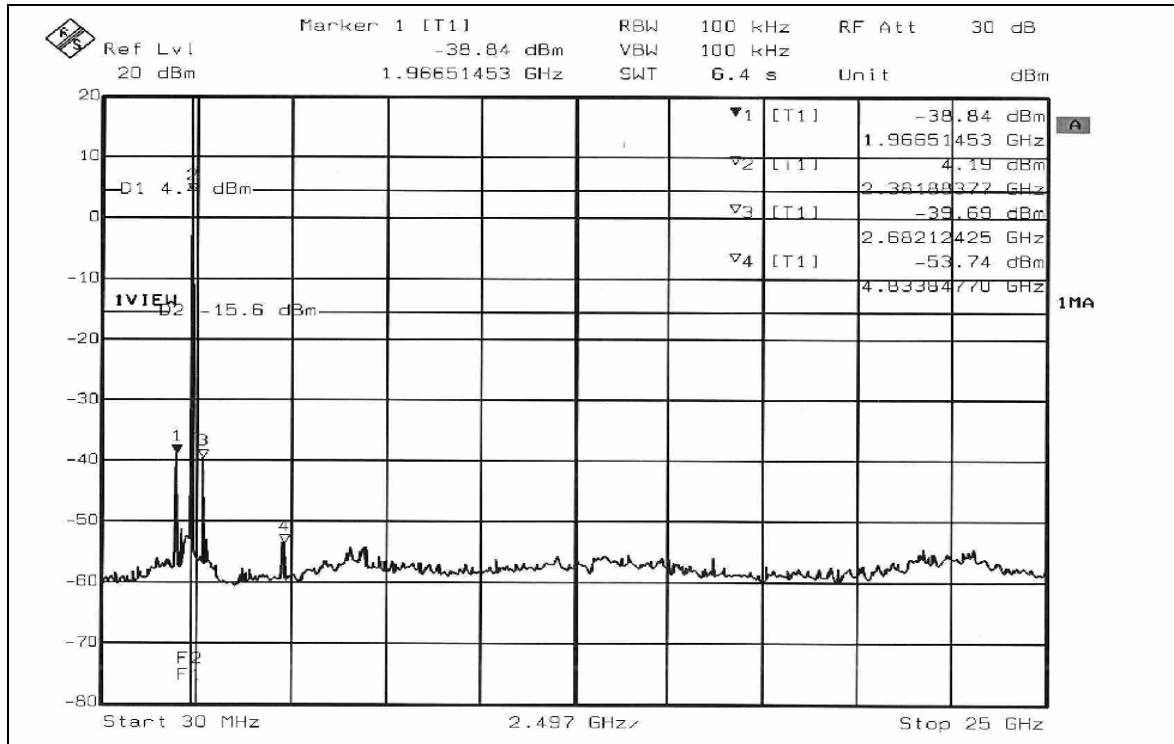
The band edge emission plot of DSSS technique on page 67 shows 60.51dBc between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 104.33dBuV/m (Average), so the maximum field strength in restrict band is $104.33 - 60.51 = 43.82$ dBuV/m which is under 54dBuV/m limit.

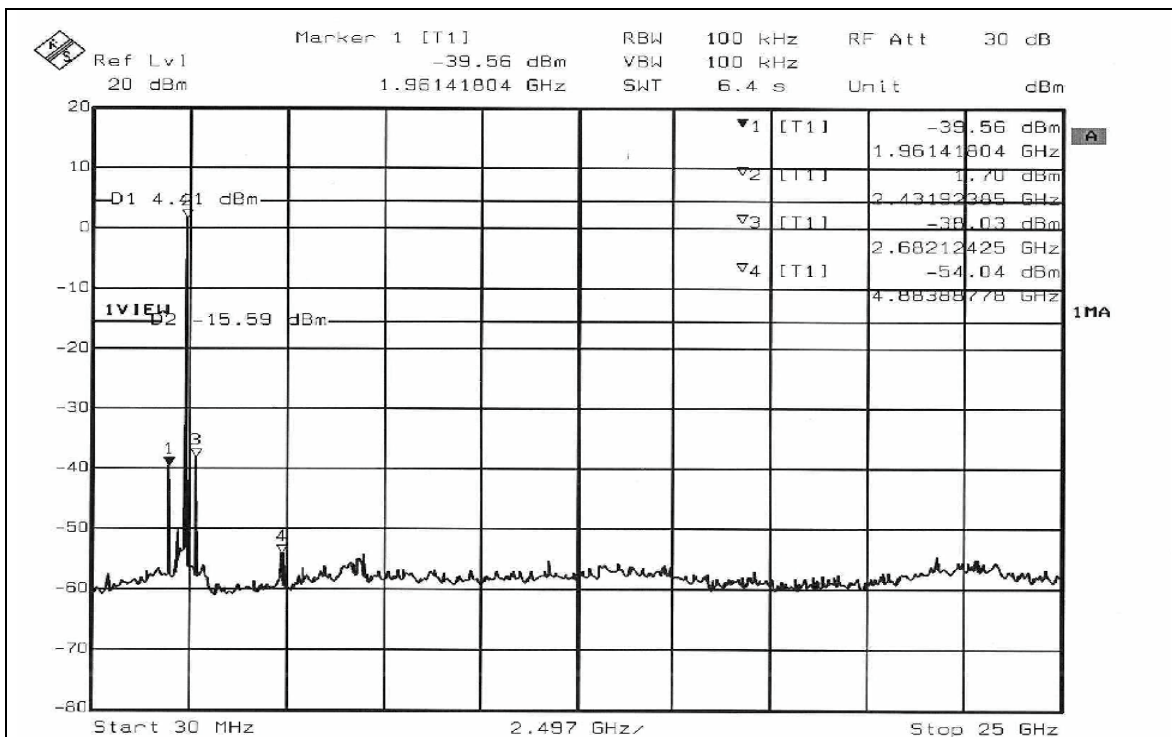
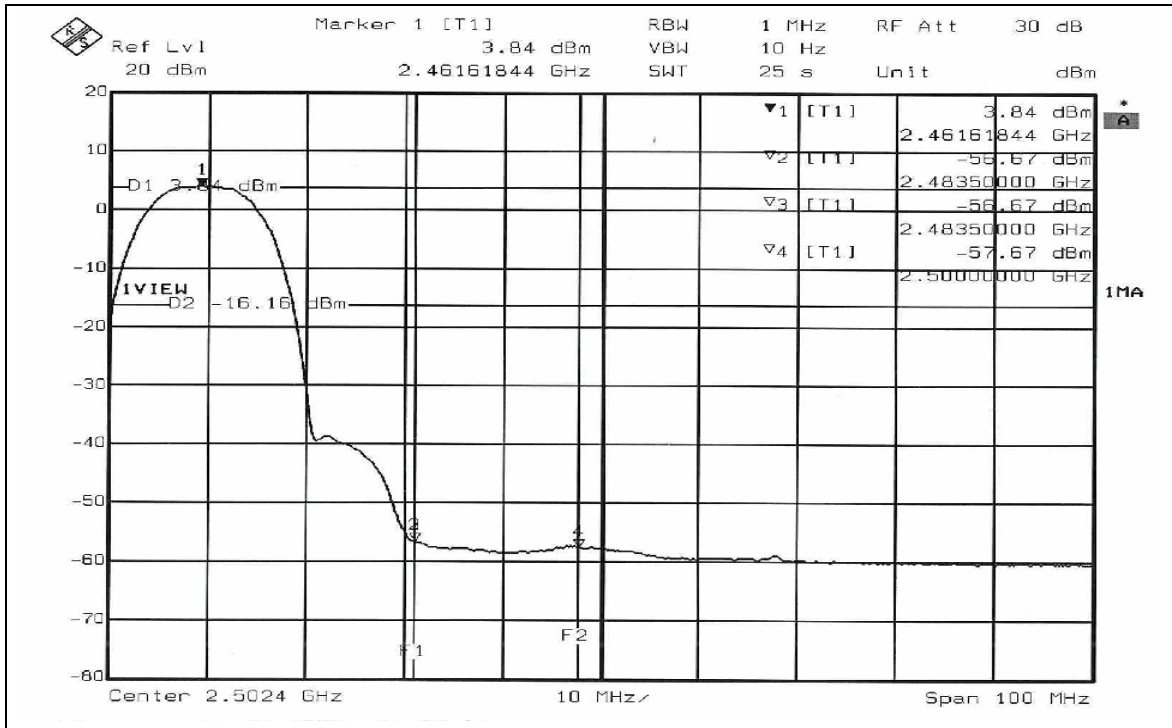
*(The test data is in accordance with ADT Report No.: 940711L09.)



802.11b DSSS modulation









802.11g OFDM modulation

NOTE 1:

The band edge emission plot of OFDM technique on page 69 shows 49.17dBc between carrier maximum power and local maximum emission in restrict band (2.3898GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 108.37dBuV/m (Peak), so the maximum field strength in restrict band is $108.37-49.17=59.20$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot of OFDM technique on page 69 shows 52.06dBc 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 97.96dBuV/m (Average), so the maximum field strength in restrict band is $97.96-52.06=45.90$ dBuV/m which is under 54dBuV/m limit.

NOTE 2:

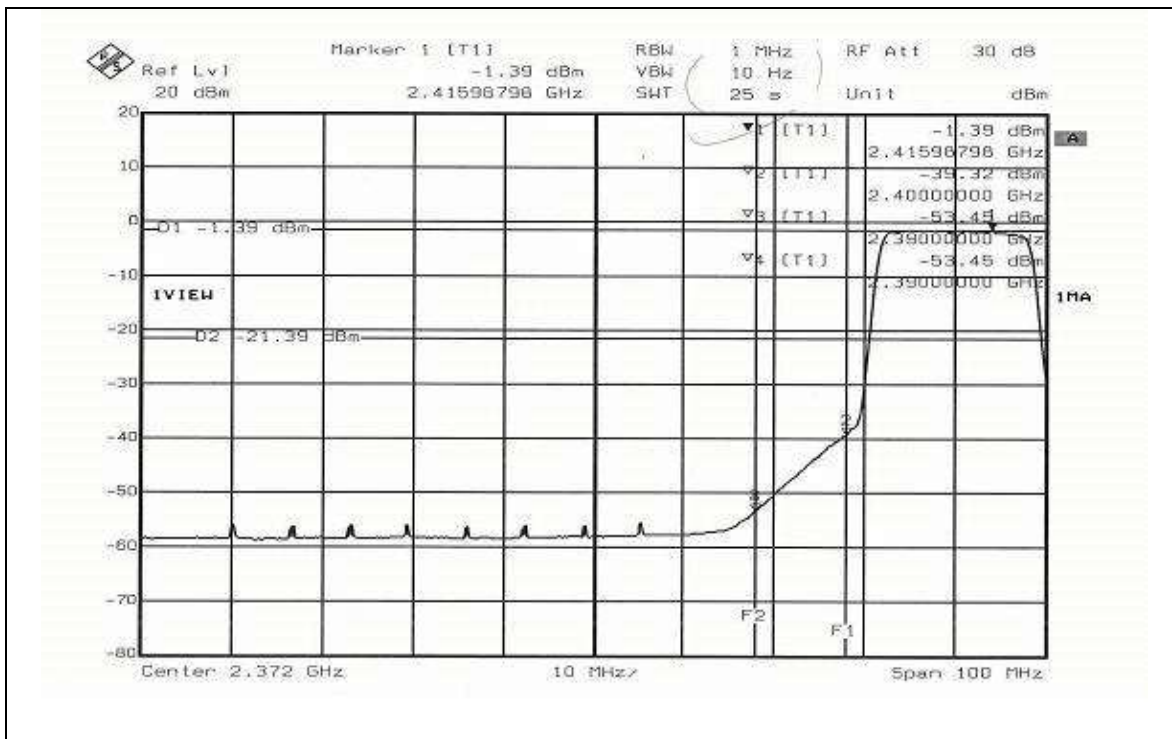
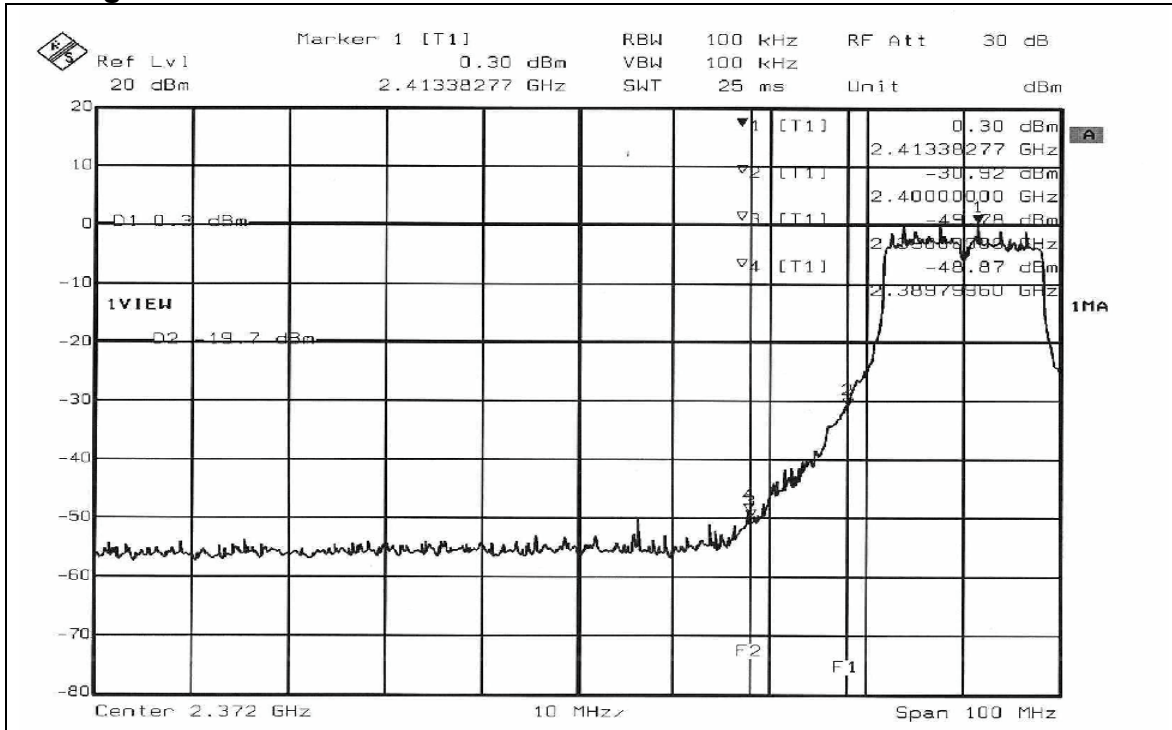
The band edge emission plot of OFDM technique on page 70 shows 48.84dBc between carrier maximum power and local maximum emission in restrict band (2.4839GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 109.55dBuV/m (Peak), so the maximum field strength in restrict band is $109.55-48.84=60.71$ dBuV/m which is under 74dBuV/m limit.

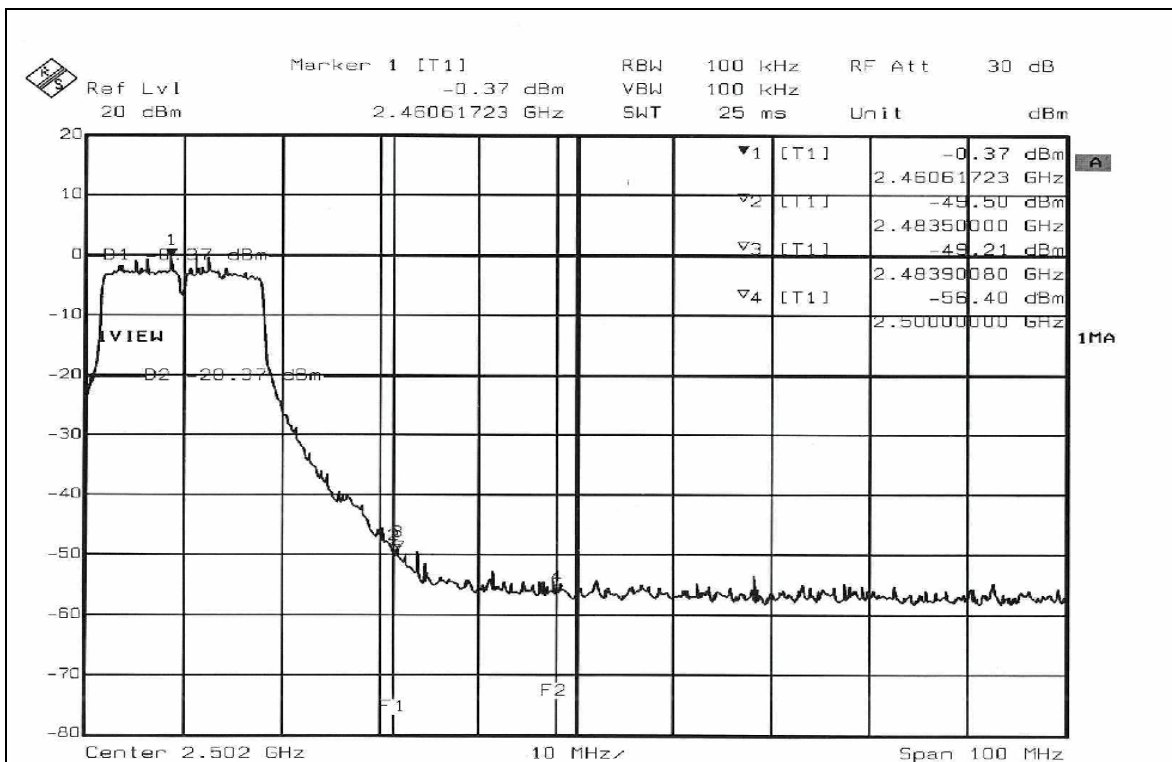
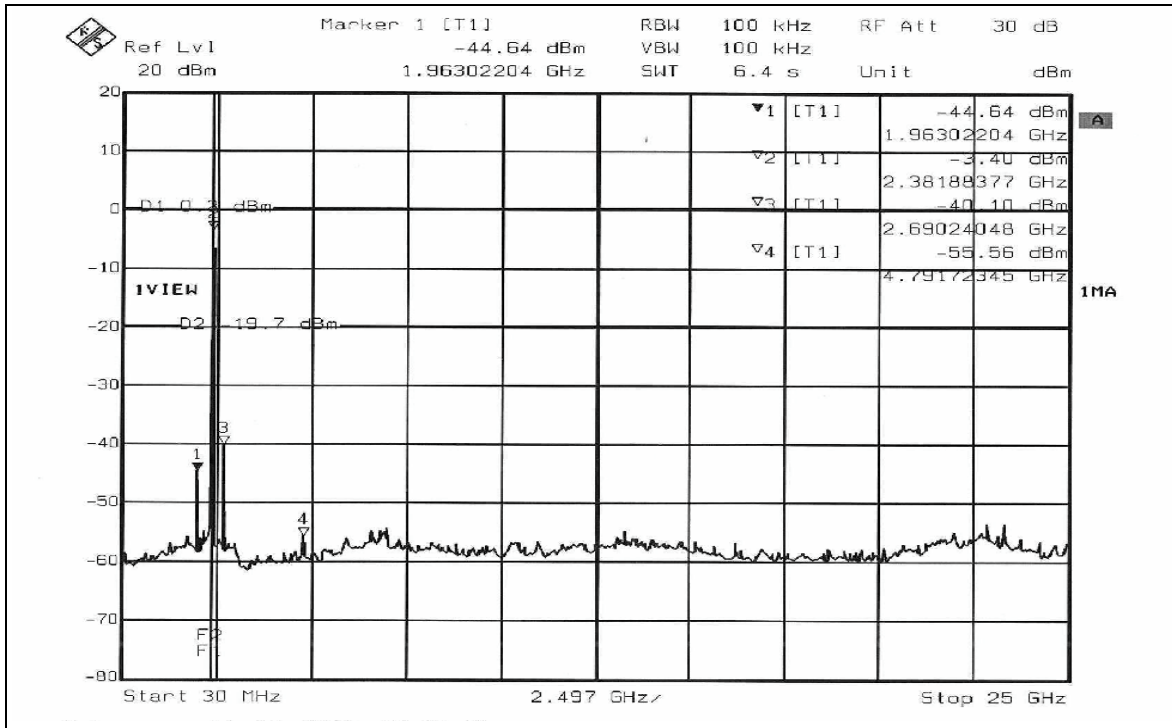
The band edge emission plot of OFDM technique on page 71 shows 50.99dBc between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 98.89dBuV/m (Average), so the maximum field strength in restrict band is $98.89-50.99=47.90$ dBuV/m which is under 54dBuV/m limit.

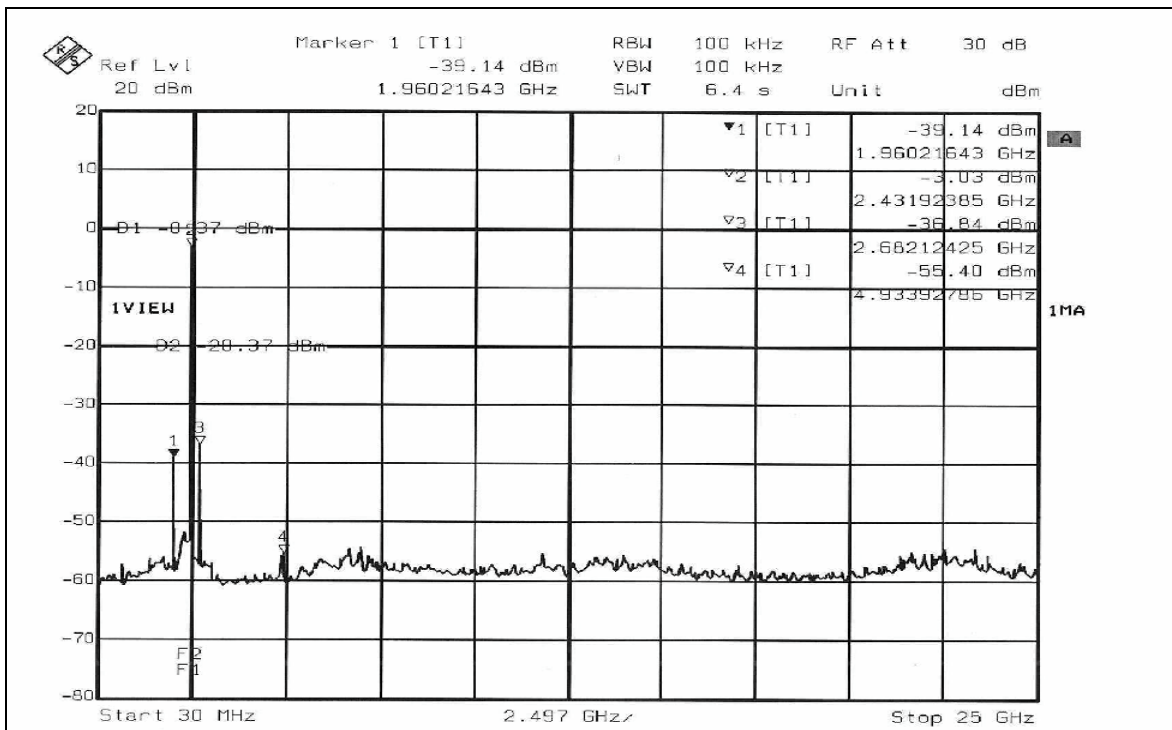
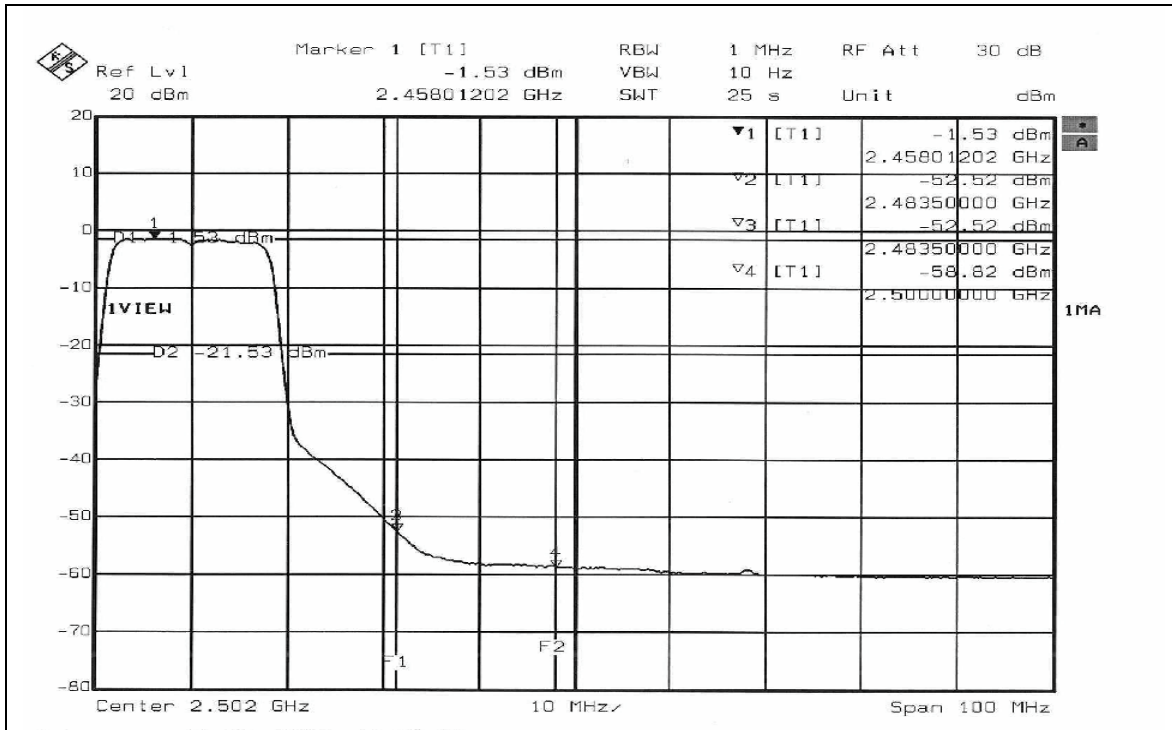
*(The test data is in accordance with ADT Report No.: 940711L09.)



802.11g OFDM modulation









802.11g Turbo OFDM modulation

NOTE 1:

The band edge emission plot of OFDM technique on page 73 shows 49.54dBc between carrier maximum power and local maximum emission in restrict band (2.3295GHz). The emission of carrier strength list in the test result of channel 6 at the item 4.2.7 is 101.94dBuV/m (Peak), so the maximum field strength in restrict band is $101.94 - 49.54 = 52.40$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot of OFDM technique on page 73 shows 49.84dBc 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 6 at the item 4.2.7 is 92.60dBuV/m (Average), so the maximum field strength in restrict band is $92.60 - 49.84 = 42.76$ dBuV/m which is under 54dBuV/m limit.

NOTE 2:

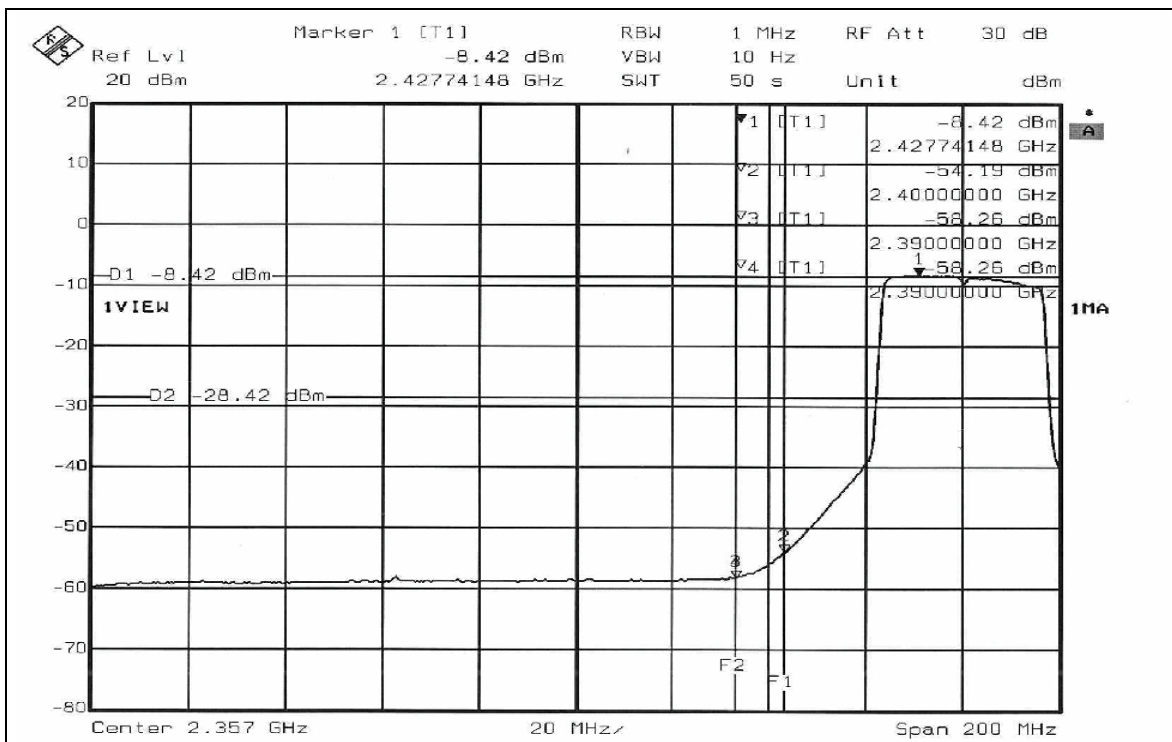
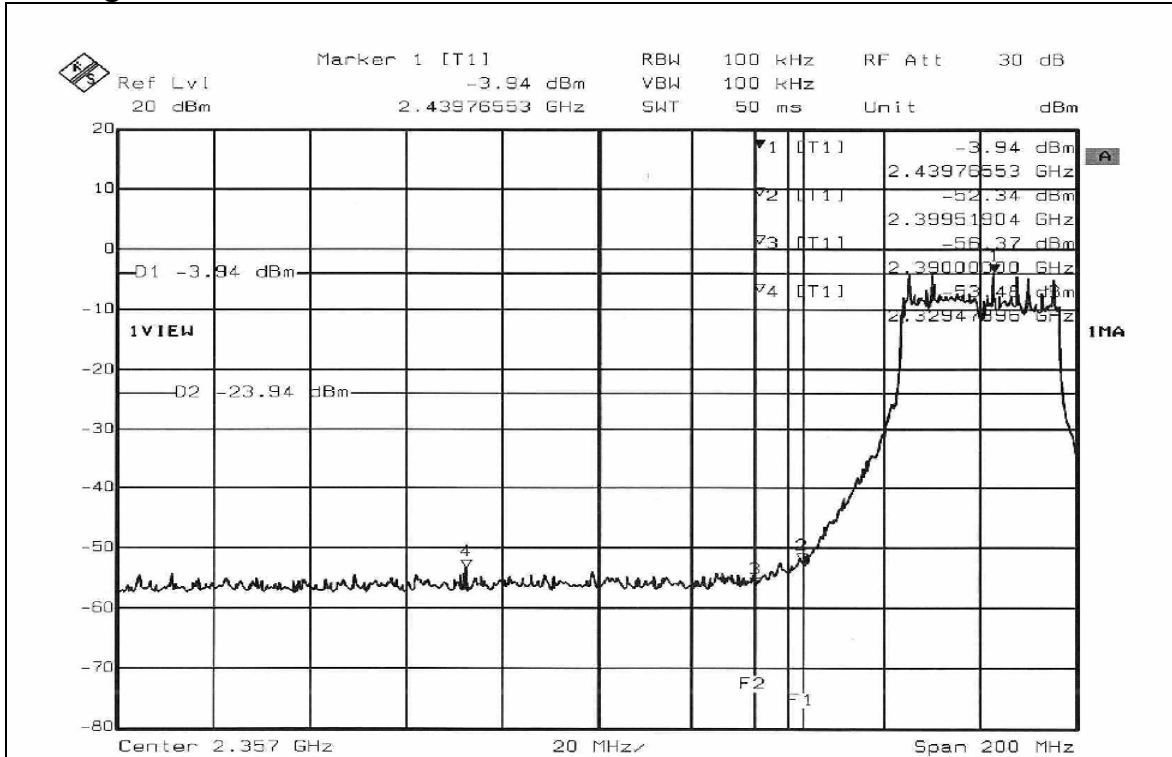
The band edge emission plot of OFDM technique on page 74 shows 50.60dBc between carrier maximum power and local maximum emission in restrict band (2.4871GHz). The emission of carrier strength list in the test result of channel 6 at the item 4.2.7 is 101.94dBuV/m (Peak), so the maximum field strength in restrict band is $101.94 - 50.60 = 51.34$ dBuV/m which is under 74dBuV/m limit.

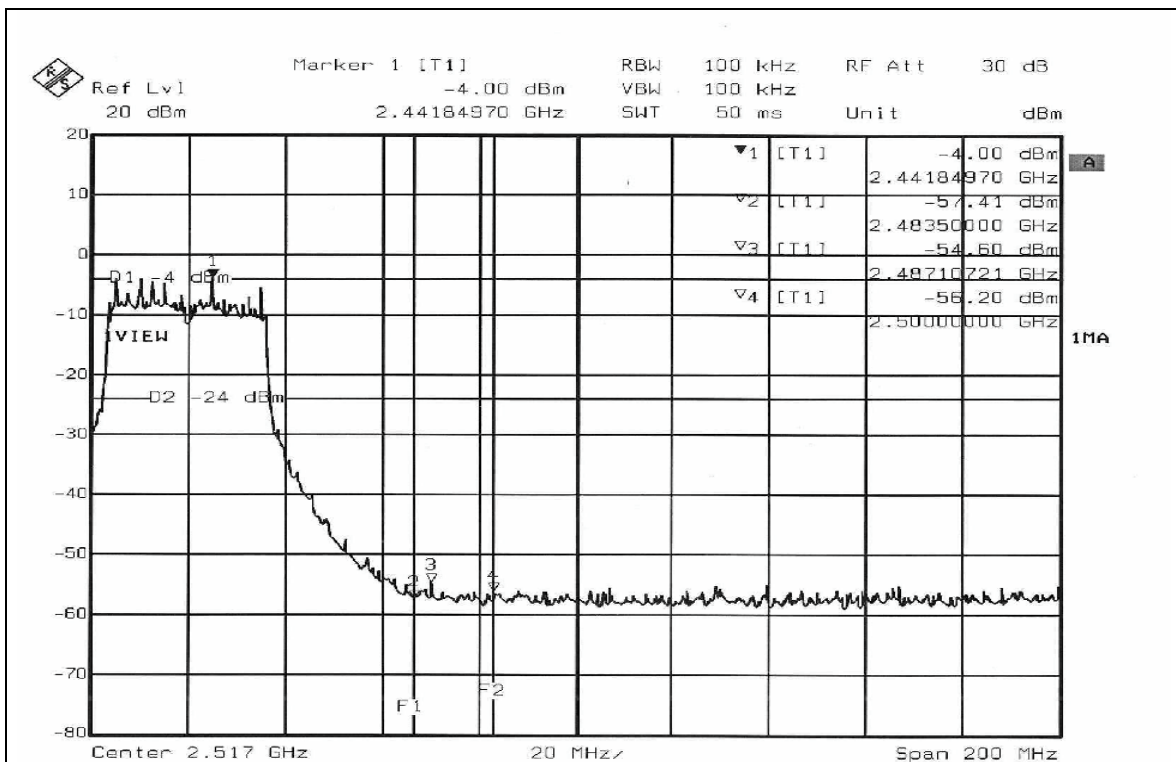
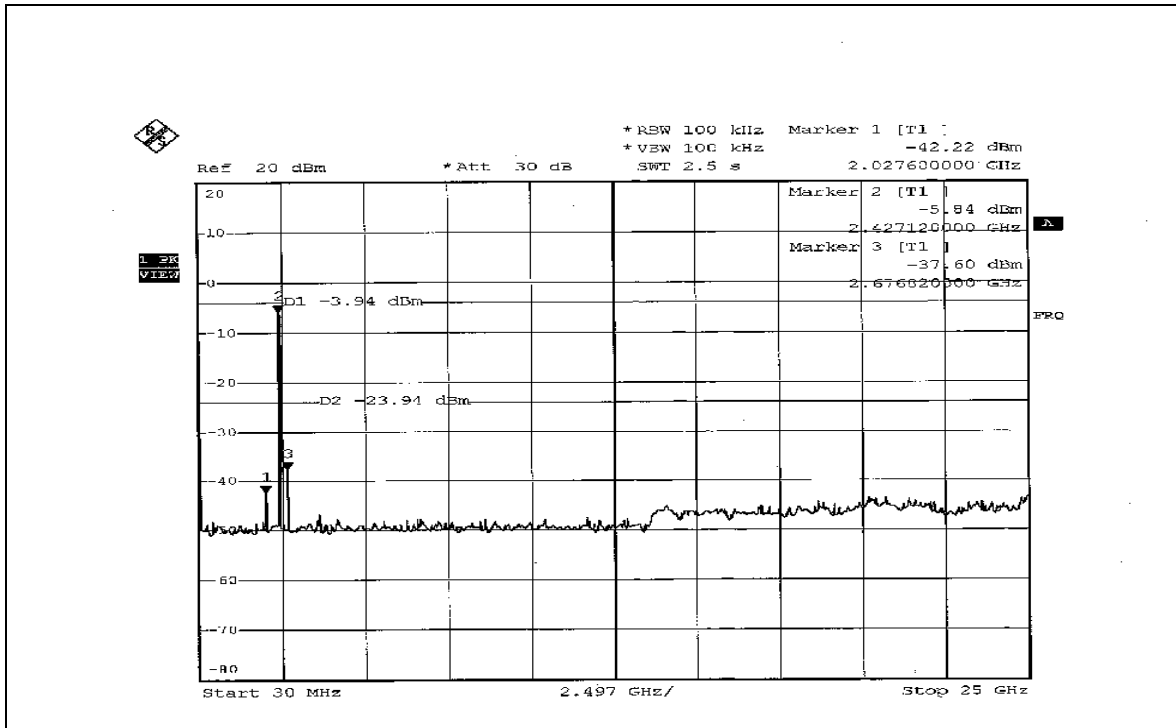
The band edge emission plot of OFDM technique on page 75 shows 51.33dBc between carrier maximum power and local maximum emission in restrict band (2.4835GHz). The emission of carrier strength list in the test result of channel 6 at the item 4.2.7 is 92.60dBuV/m (Average), so the maximum field strength in restrict band is $92.60 - 51.33 = 41.27$ dBuV/m which is under 54dBuV/m limit.

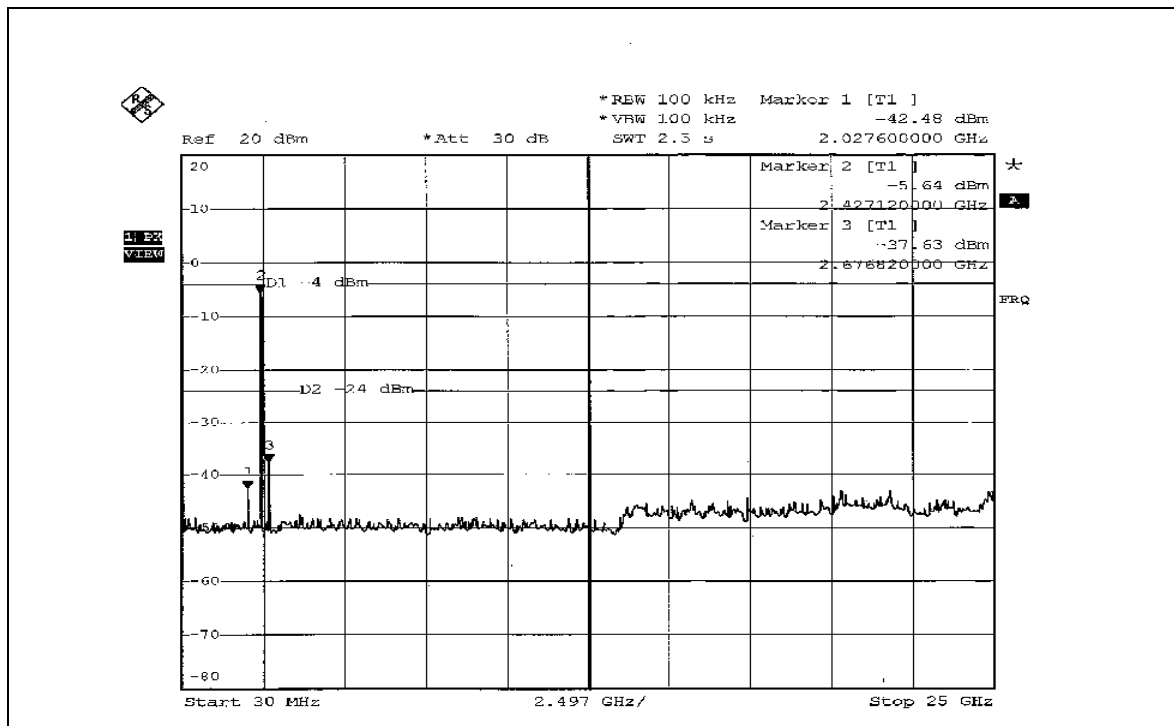
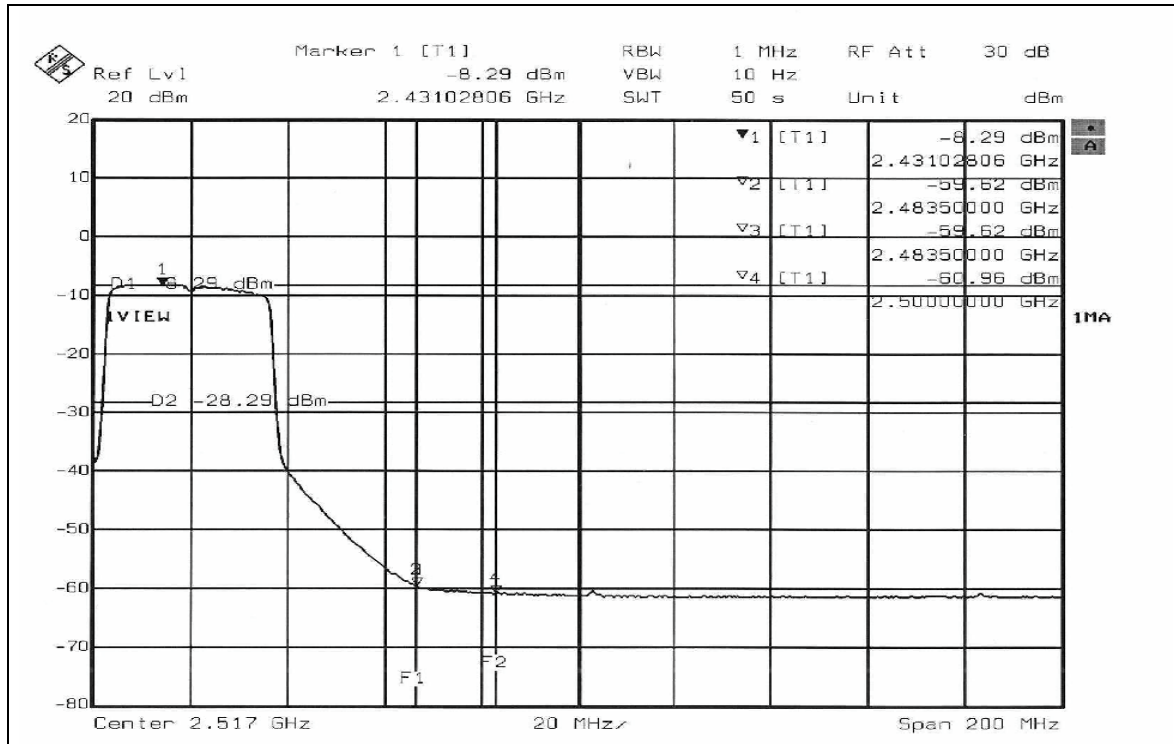
*(The test data is in accordance with ADT Report No.: 940711L09.)



802.11g Turbo OFDM modulation









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

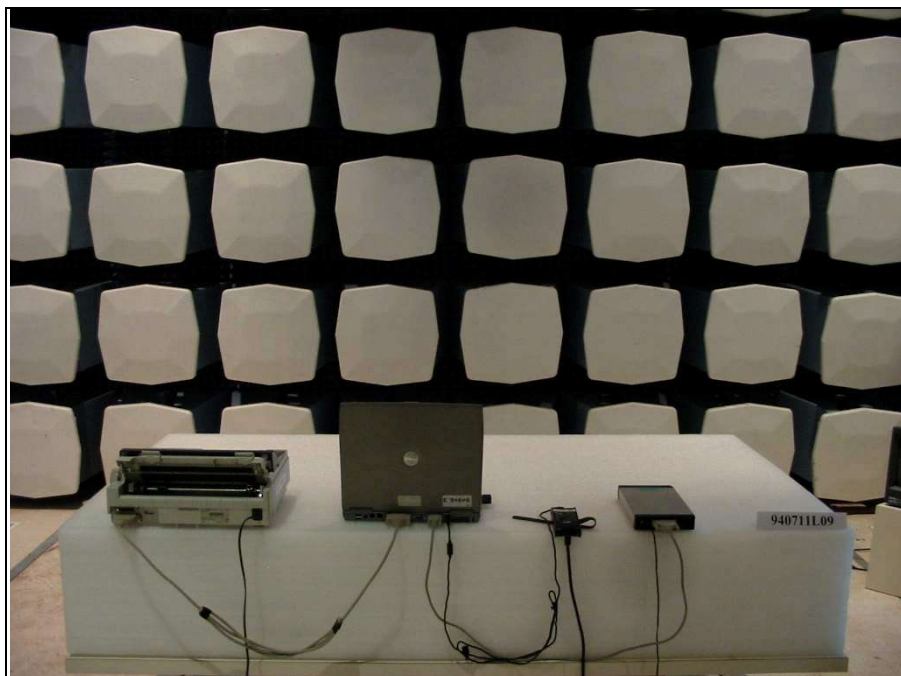
The antenna type used in this product is print antenna without antenna connector. The maximum Gain of the antenna is 0.42dBi.

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

USA	FCC, NVLAP, UL, A2LA
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:

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Web Site: www.adt.com.tw

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