



#### 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	Aug. 12, 2004

**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 RBV=1MHz and VBW=1KHz for CCK technique and RBV=1MHz and VBW=1KHz for OFDM technique with suitable frequency span including 100MHz 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

The spectrum plots are attached on the following 8 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).

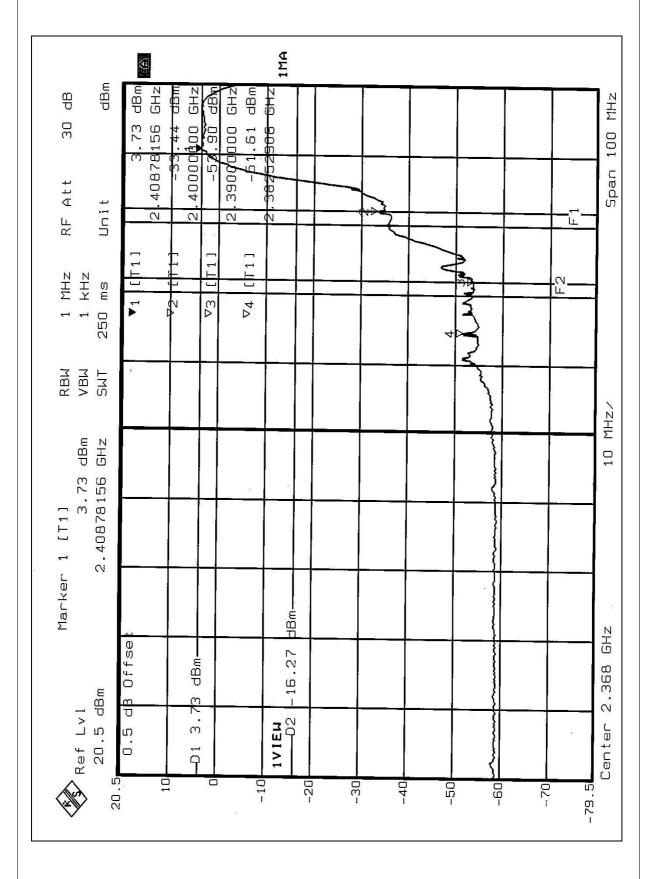
**NOTE 1:** The band edge emission plot of the CCK technique on the following four pages show 55.34dB delta between carrier maximum power and local maximum emission in restrict band (2.3825GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.8 are 94.90dBuV/m, so the maximum field strength in restrict band is 94.90-55.34=39.56dBuV/m which is under 54dBuV/m limit.

**NOTE 2:** The band edge emission plot of the CCK technique on the following four pages show 55.72dB delta between carrier maximum power and local maximum emission in restrict band (2.4840GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.8 are 95.70dBuV/m, so the maximum field strength in restrict band is 95.70-55.72=39.98dBuV/m which is under 54dBuV/m limit

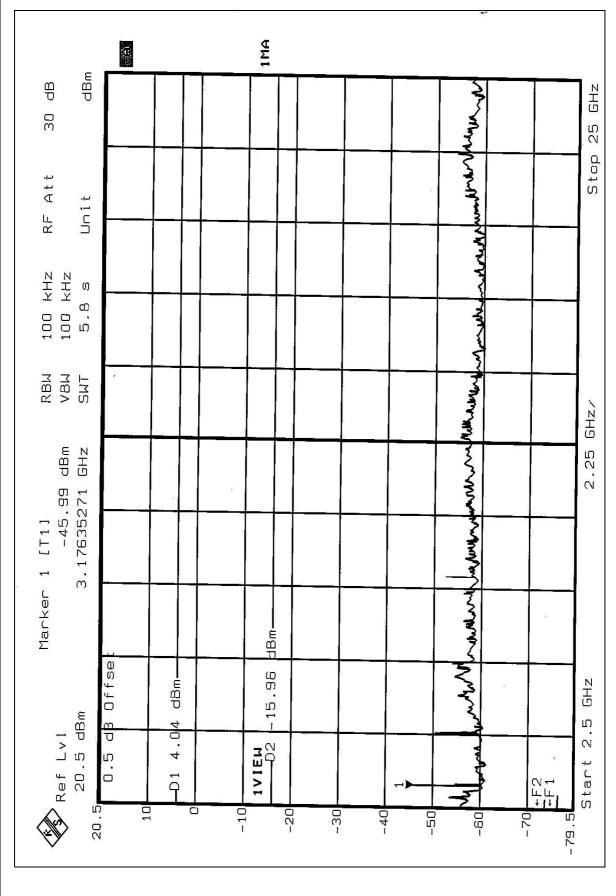
**NOTE 3:** The band edge emission plot of the OFDM technique on the following four pages show 42.97lta between carrier maximum power and local maximum emission in restrict band (2.3900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.8 are 92.58dBuV/m, so the maximum field strength in restrict band is 92.58-42.97=49.61dBuV/m which is under 54dBuV/m limit.

**NOTE 4:** The band edge emission plot of the OFDM technique on the following four pages show 41.35dB 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 are 94.83dBuV/m, so the maximum field strength in restrict band is 94.83-41.35=53.48dBuV/m which is under 54dBuV/m limit.

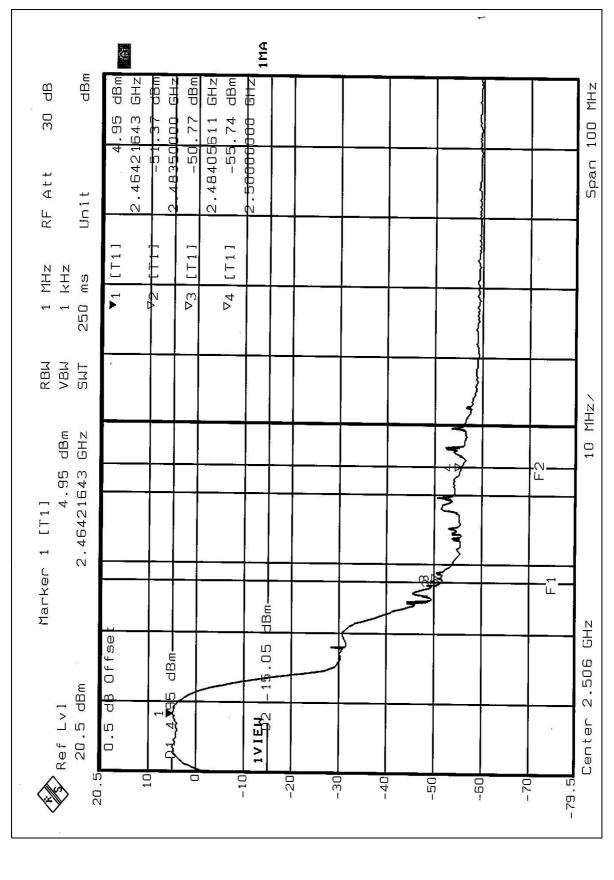




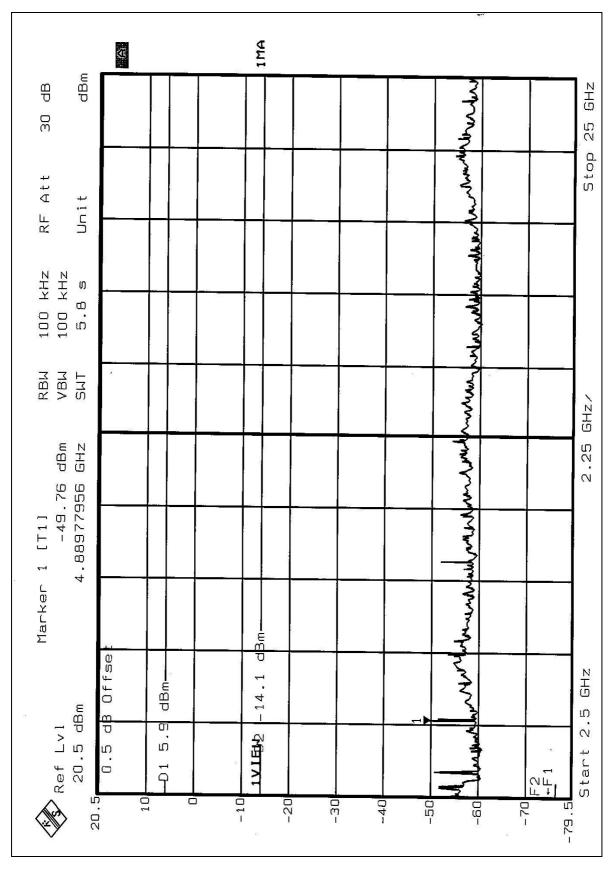




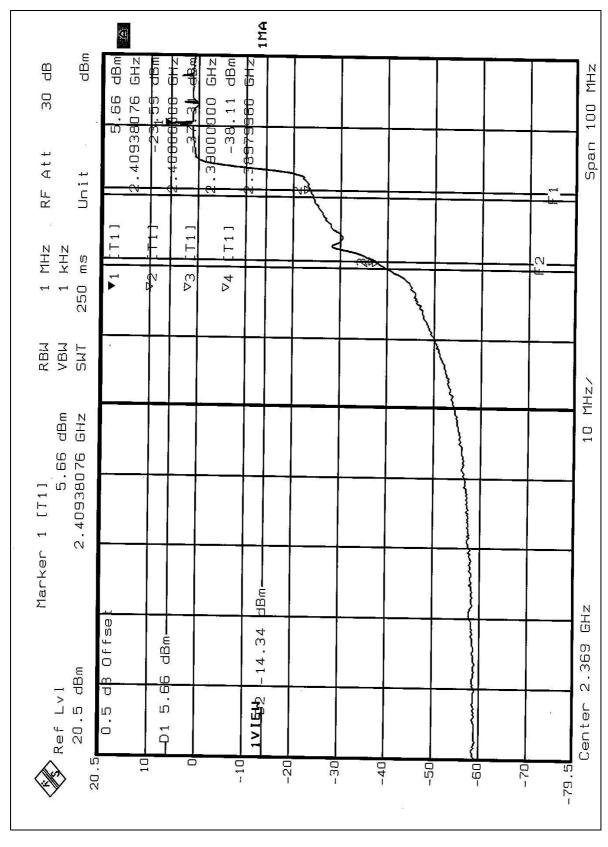




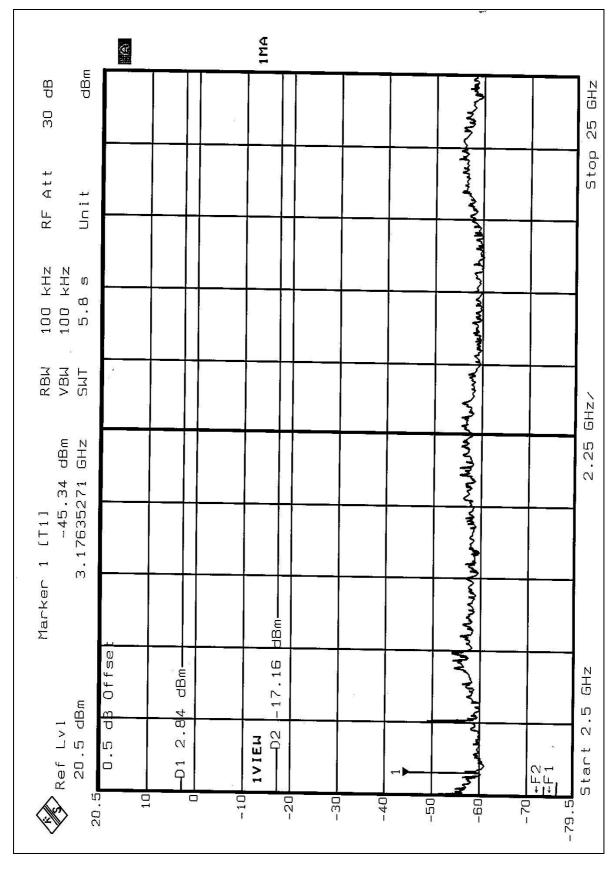




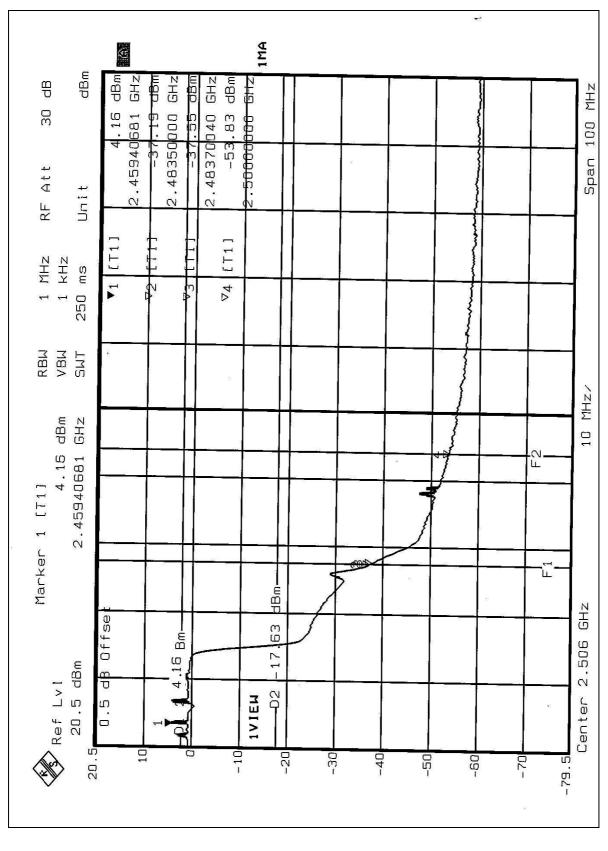




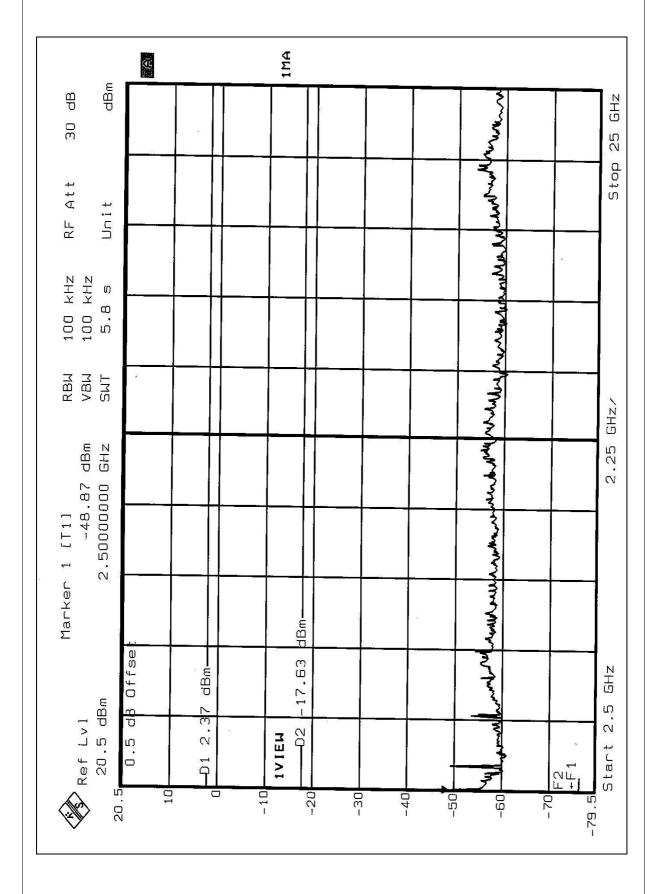














## 4.7 ANTENNA REQUIREMENT

#### 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 type used in this product is sleeve Antenna with Reverse SMA antenna connector. The maximum Gain of this antenna is only 1.8dBi.



# 5 PHOTOGRAPHS OF THE TEST CONFIGURATION

CONDUCTED EMISSION TEST (FOR MODE A)







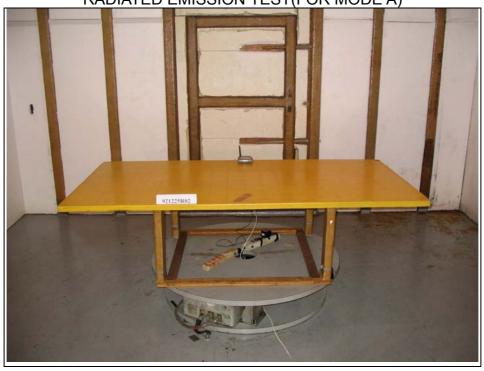
(FOR MODE B)







RADIATED EMISSION TEST(FOR MODE A)







(FOR MODE B)







## 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:

USA FCC, NVLAP TUV Rheinland

Japan VCCI New Zealand MoC Norway NEMKO

**R.O.C.** BSMI, DGT, CNLA

Copies of accreditation certificates of our laboratories obtained from approval agencies can be downloaded from our web site: <a href="https://www.adt.com.tw/index.5/phtml">www.adt.com.tw/index.5/phtml</a>.

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