

#### 5.7 BAND EDGES MEASUREMENT

#### 5.7.1 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.

#### 5.7.2 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 1MHz with suitable frequency span including 100 MHz bandwidth from band edge. The band edges was measured and recorded.

#### 5.7.3 EUT OPERATING CONDITION

The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.

#### 5.7.4 TEST RESULTS

For signals in the restricted bands above and below the 5.15 to 5.35GHz allocated band a measurement was made of the amplitude of the spurious emissions with respect to the intentional signals. The relative amplitude, in dBc, was applied to the average and peak filed strength of the intentional signal made on the OATS to calculate the field strength of the unintentional signals.

The spectrum plots (Peak RBW=VBW=1MHz; Average RBW=1MHz, VBW=10Hz) are attached on the following 6 pages.



Issued: Dec.10, 2004

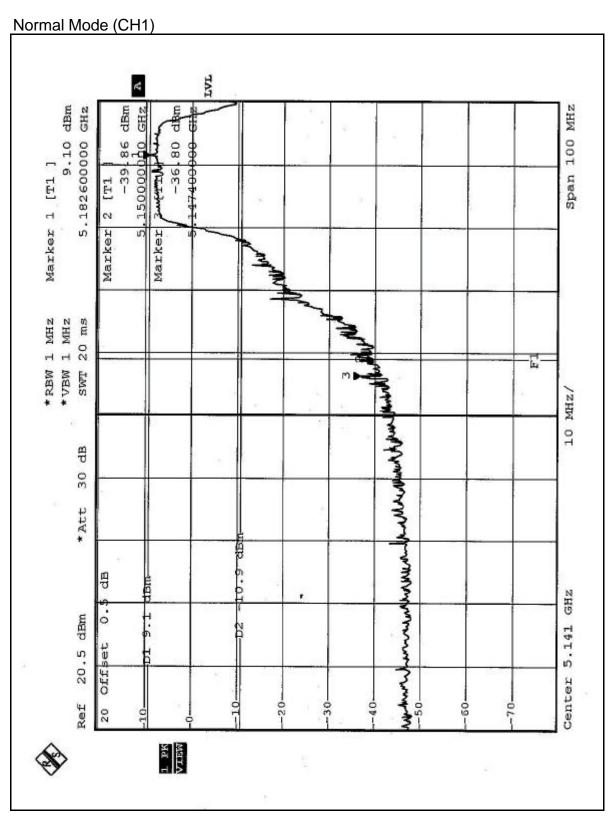
#### Channel 1 (5180MHz)

The band edge emission plot on the pages 123 ~ 124 shows 45.90dBc (Peak) / 51.37Bc (Average) between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 1 is 101.62dBuV/m, so the maximum field strength in restrict band is 101.62-51.37=50.25dBuV/m which is under 54dBuV/m limit.

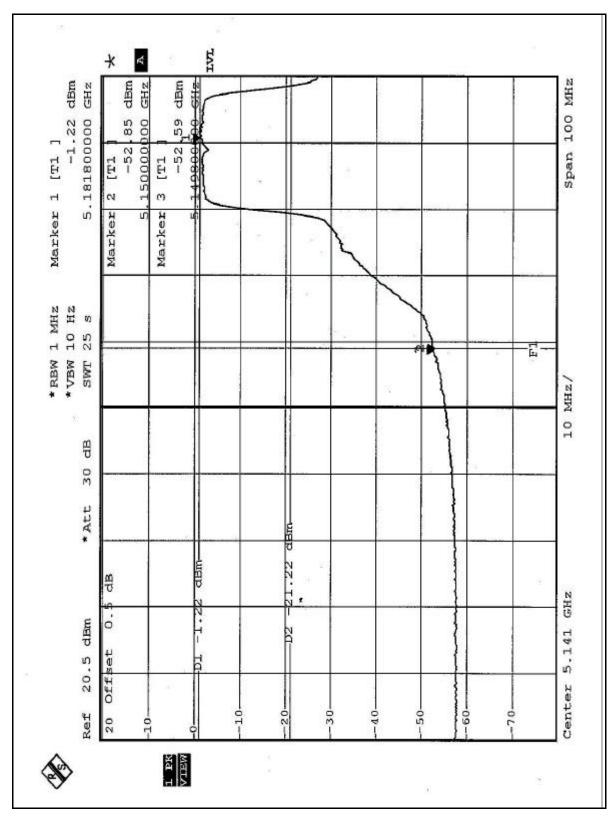
## Channel 8 (5320MHz)

The band edge emission plot on the pages  $125 \sim 126$  shows 45.30 dBc (Peak) / 51.32 dBc (Average) between carrier maximum power and local maximum emission in restrict band. The emission of carrier strength list in the test result of channel 8 is 100.17 BuV/m, so the maximum field strength in restrict band is 100.17-51.32=48.85 dBuV/m which is under 54 dBuV/m limit.

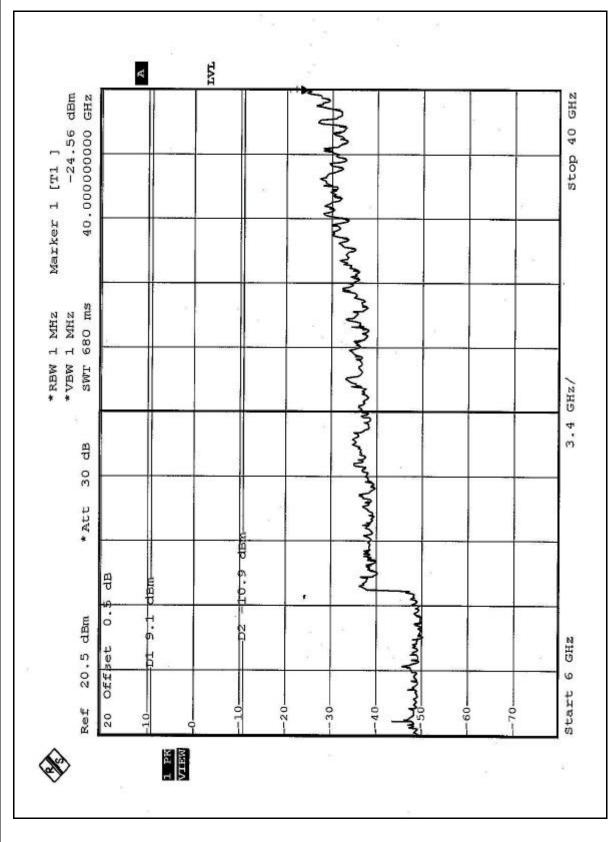




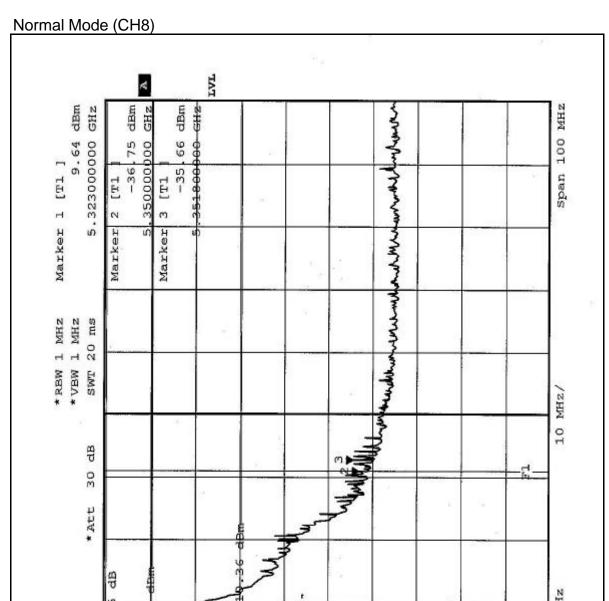












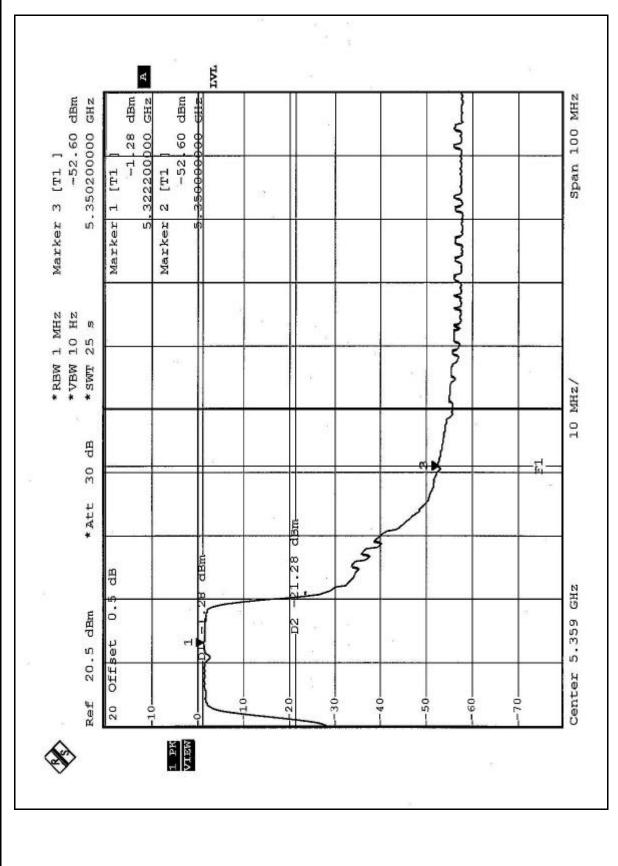
20.5 dBm

Offset

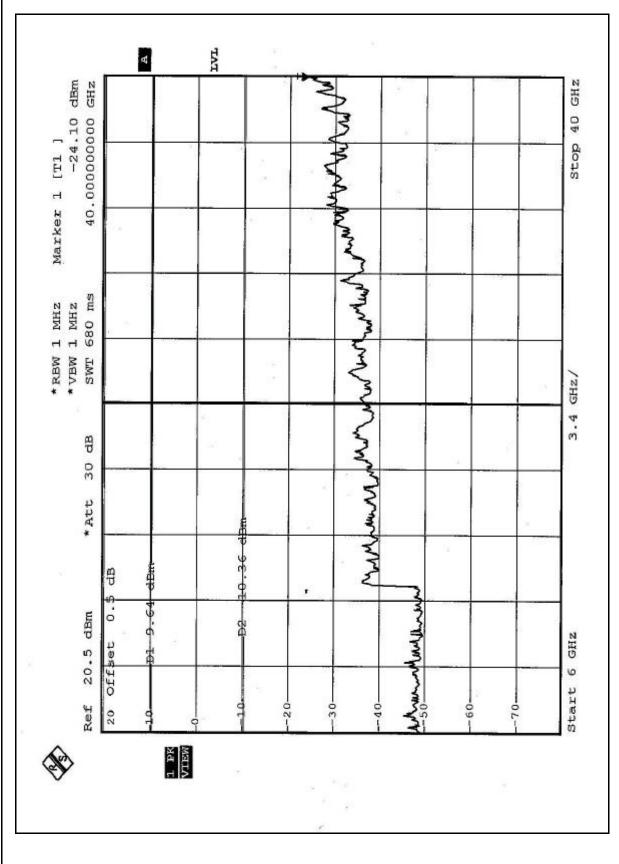
1 PK VIEW 5.359

Center











#### 5.8 **ANTENNA REQUIREMENT**

#### 5.8.1 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 15.407(a), 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.

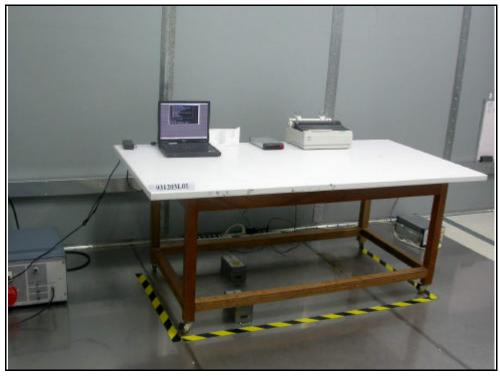
## 5.8.2 ANTENNA CONNECTED CONSTRUCTION

The antenna used in this product is Monopole antenna with UFL connector. The maximum Gain of the antenna is 4.91dBi.



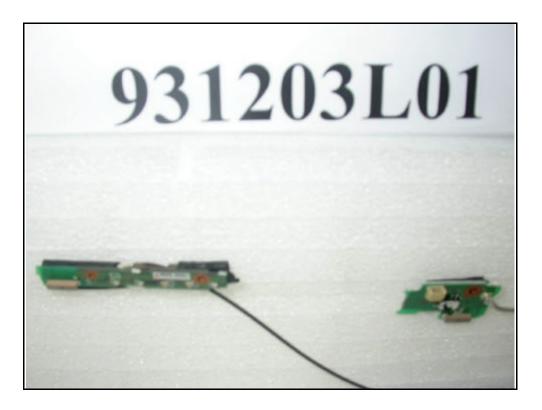
# **6. PHOTOGRAPHS OF THE TEST CONFIGURATION**

CONDUCTED EMISSION TEST





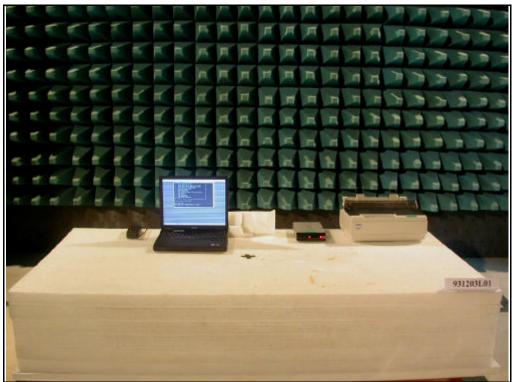


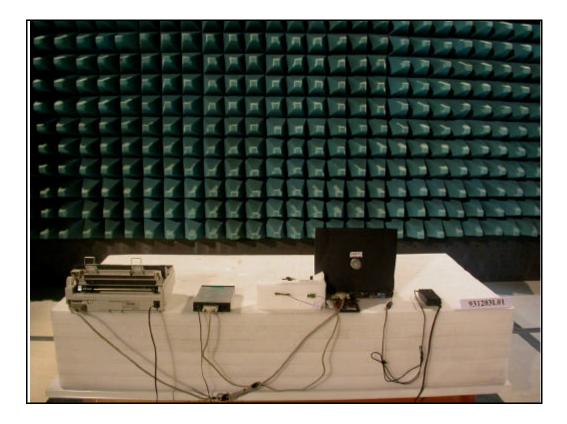




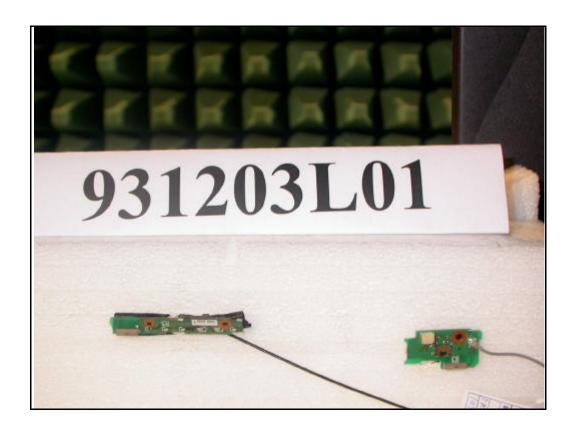


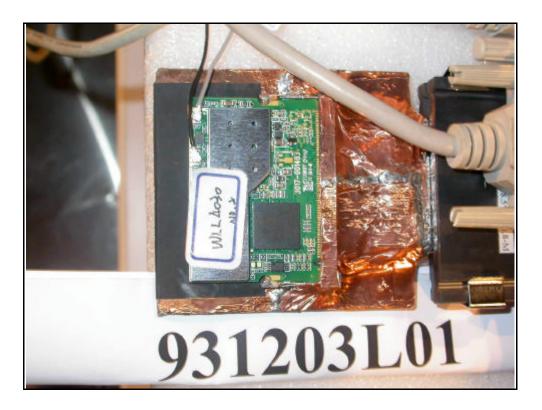
## RADIATED EMISSION TEST













## 7. 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:

<u>www.adt.com.tw/index.5/phtml</u>. If you have any comments, please feel free to contact us at the following:

**Linko EMC/RF Lab**: **Hsin Chu EMC/RF Lab**: Tel: 886-2-26052180 Tel: 886-3-5935343

Fax: 886-2-26052943 Fax: 886-3-5935342

Hwa Ya EMC/RF/Safety Telecom Lab: Linko RF Lab.

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

Report Format Version 1.5