

## 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.

# 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).

# 4.6.7 TEST RESULTS(A)

#### NOTE:

The band edge emission plot of CCK technique on the following 1~2 pages show 51.66dB delta between carrier maximum power and local maximum emission in restrict band (2.3866GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.8 is 102.63dBuV/m, so the maximum field strength in restrict band is 102.63-51.66=50.97dBuV/m which is under 54dBuV/m limit.

The band edge emission plot of CCK technique on the following 3~4 pages show 52.88dB delta between carrier maximum power and local maximum emission in restrict band (2.4981GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.8 is 101.36dBuV/m, so the maximum field strength in restrict band is 101.36-52.88=48.48dBuV/m which is under 54dBuV/m limit.

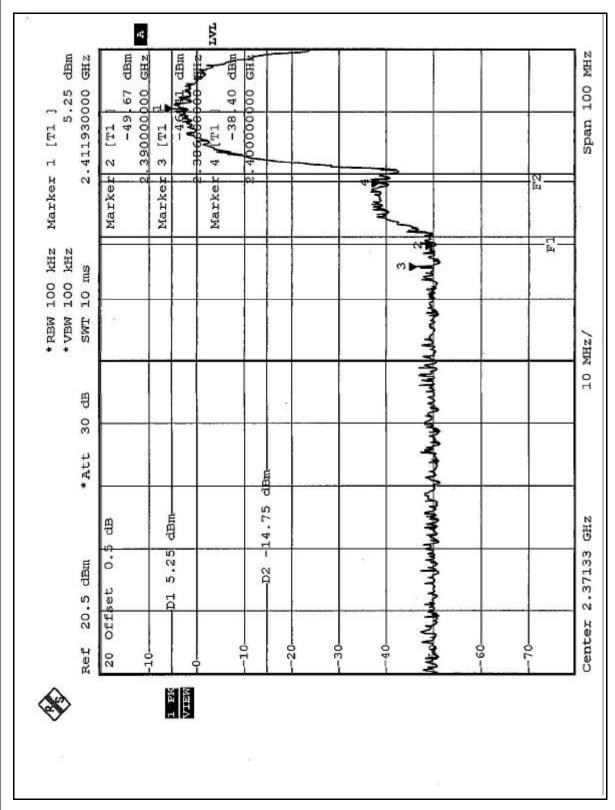
## 4.6.8 TEST RESULTS(B)

#### NOTE:

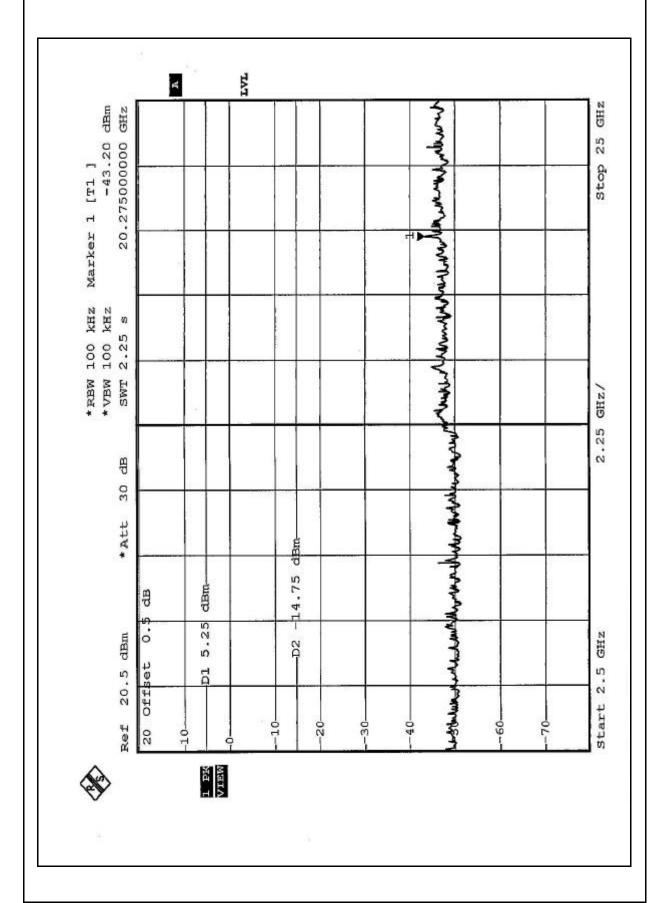
The band edge emission plot of OFDM technique on the following 5~6 pages show 46.14dB delta between carrier maximum power and local maximum emission in restrict band (2.3774GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.9 is 98.36dBuV/m, so the maximum field strength in restrict band is 98.36-46.14=52.22dBuV/m which is under 54dBuV/m limit.

The band edge emission plot of OFDM technique on the following 7~8 pages show 44.71dB delta between carrier maximum power and local maximum emission in restrict band (2.4845GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.9 is 97.18dBuV/m, so the maximum field strength in restrict band is 97.18-44.71=52.47dBuV/m which is under 54dBuV/m limit.

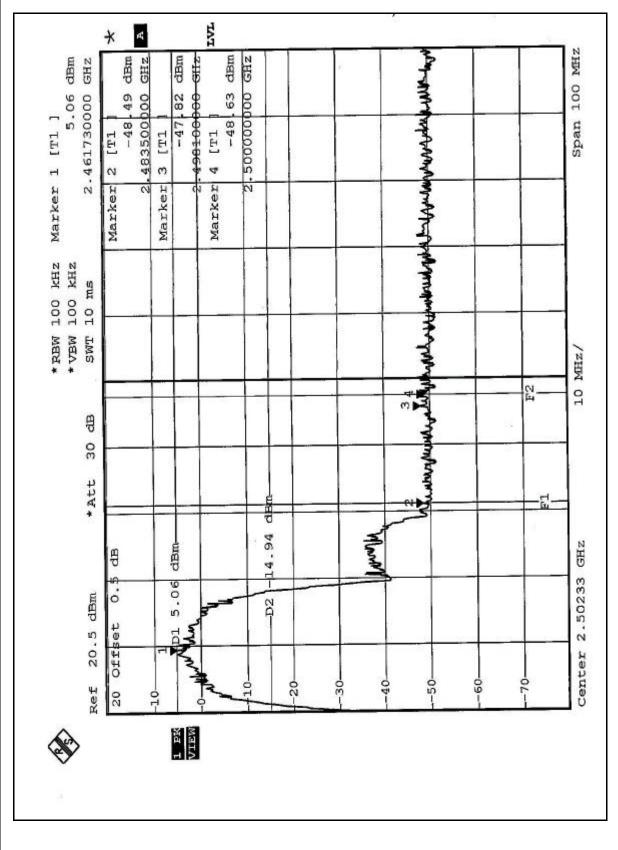




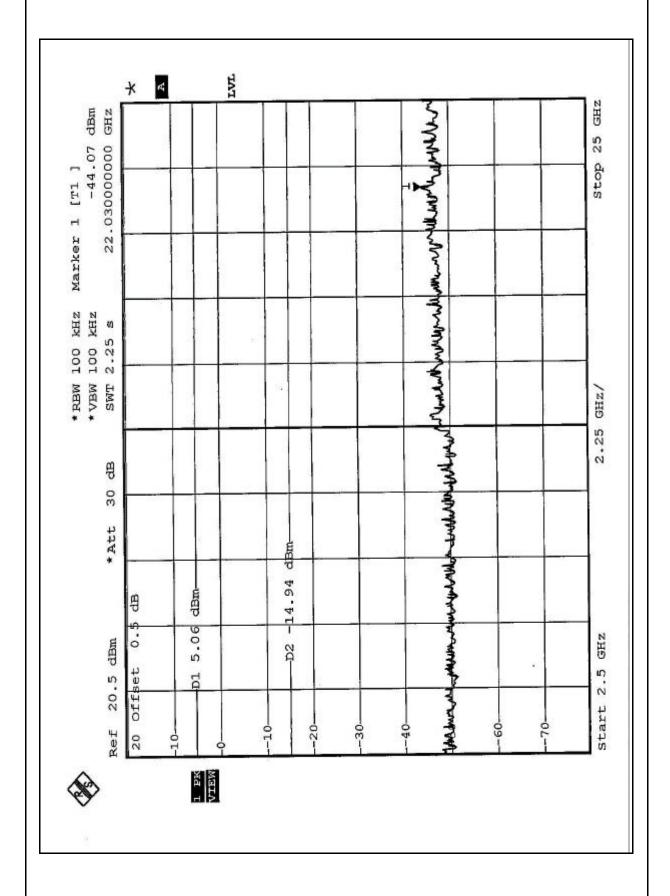




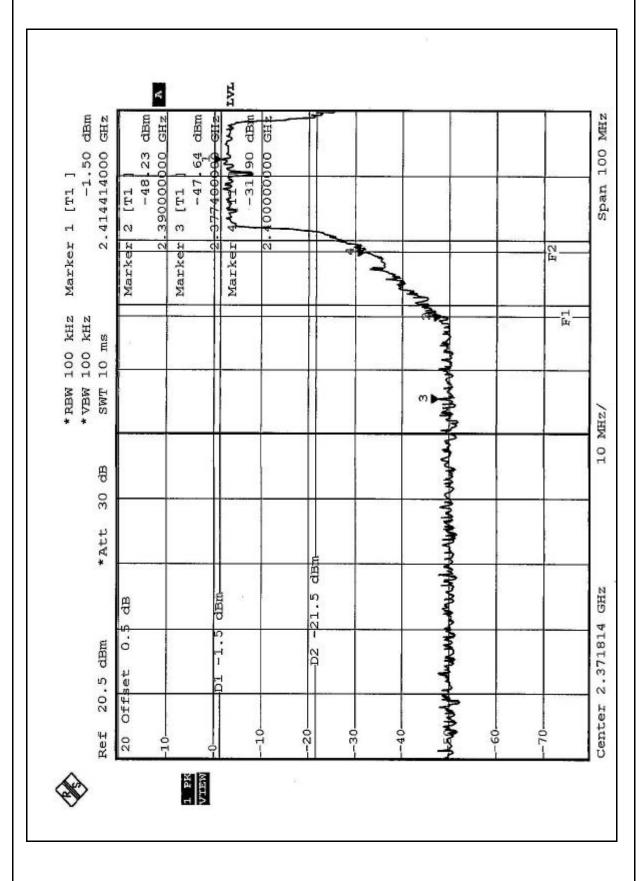




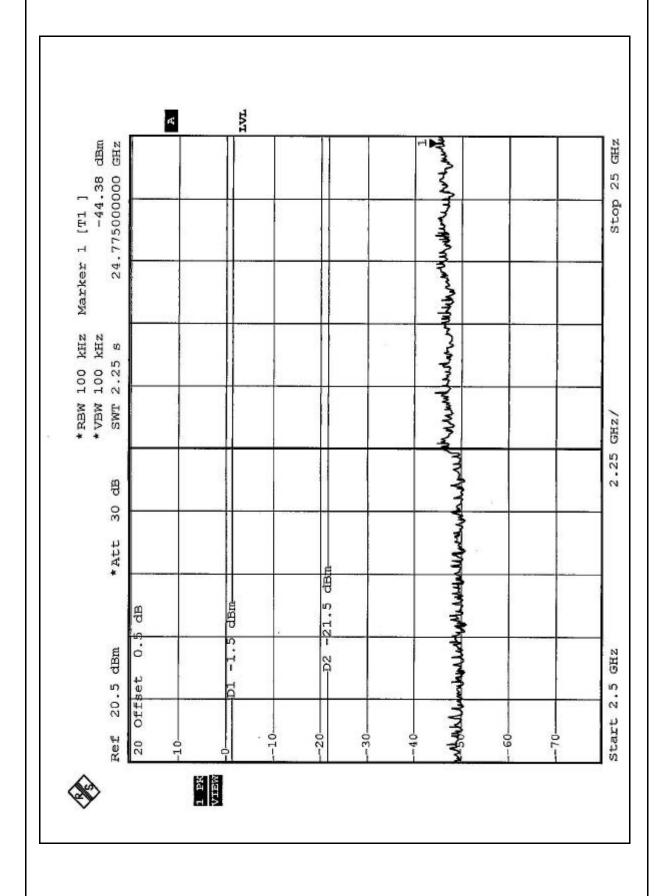




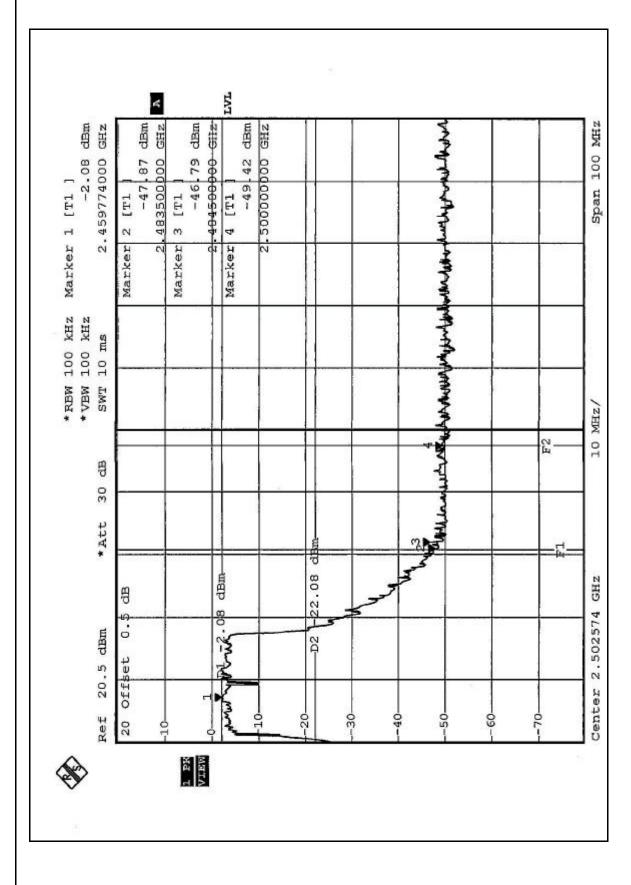




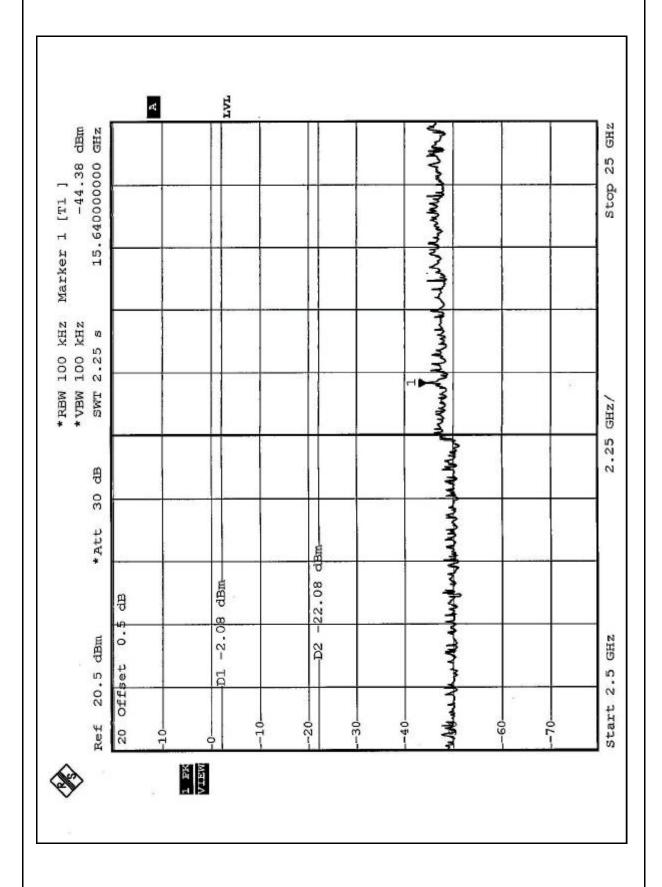














## 4.7 ANTENNA REQUIREMENT

## 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

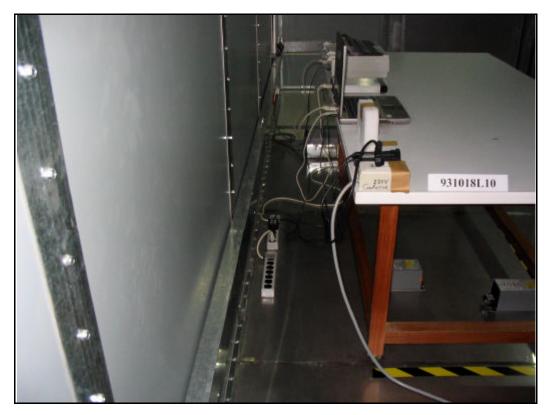
The antenna used in this product is Printed monopole antenna with UFL connector. And the maximum Gain of this antenna is 1.1dBi.



# 5 PHOTOGRAPHS OF THE TEST CONFIGURATION

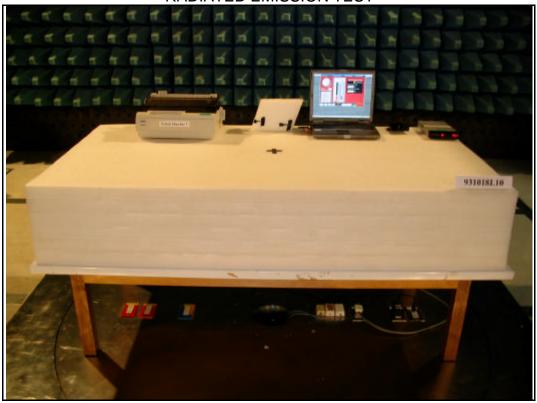
CONDUCTED EMISSION TEST





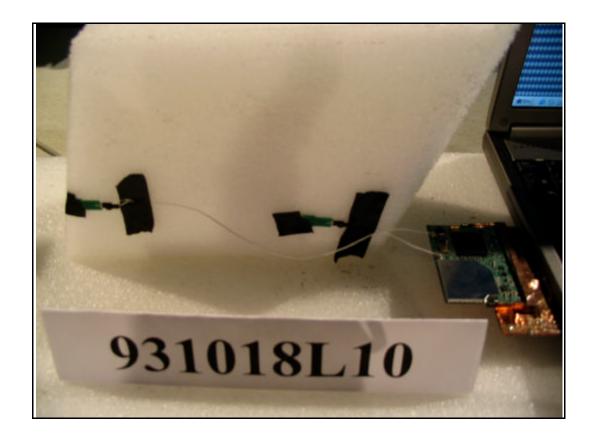


# RADIATED EMISSION TEST











# **6 INFORMATION ON THE TESTING LABORATORIES**

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