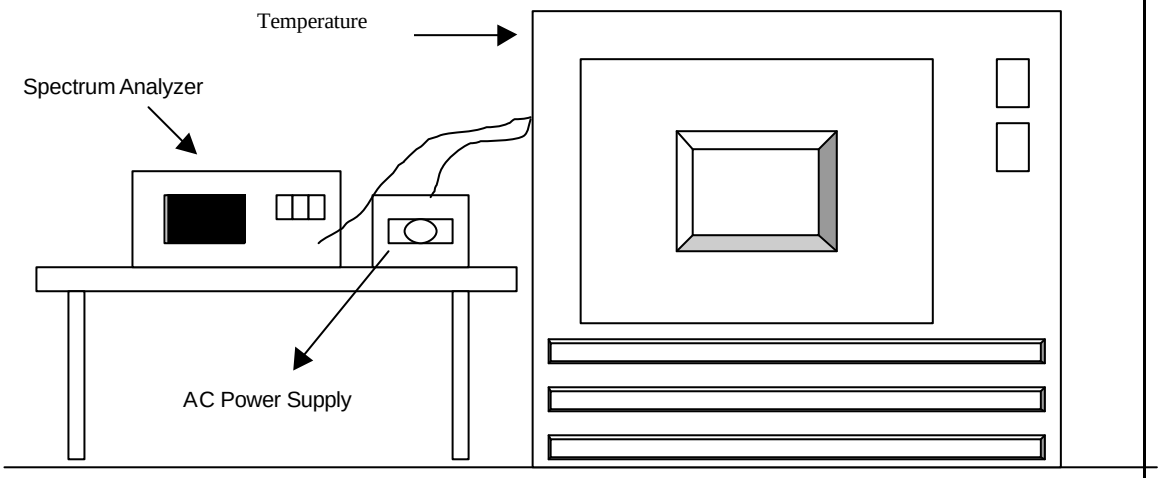
5.6.5 TEST SETUP



5.6.6 EUT OPERATING CONDITION

Same as Item 4.1.6

5.6.7 TEST RESULTS

Operating frequency: 5320MHz						Limit : ± 0.02%	
Temp. (°C)	Power supply (VAC)	2 minute		5 minute		10 minute	
		(MHz)	(%)	(MHz)	(%)	(MHz)	(%)
50	126.5	5320.0167	0.000314%	5320.0167	0.000314%	5320.0168	0.000316%
	110.0	5320.0168	0.000316%	5320.0169	0.000318%	5320.0168	0.000316%
	93.5	5320.0166	0.000312%	5320.017	0.000320%	5320.0168	0.000316%
40	126.5	5319.9974	-0.000049%	5319.9979	-0.000039%	5319.9978	-0.000041%
	110.0	5319.9976	-0.000045%	5319.9977	-0.000043%	5319.9979	-0.000039%
	93.5	5319.9975	-0.000047%	5319.9978	-0.000041%	5319.9978	-0.000041%
30	126.5	5319.9932	-0.000128%	5319.9935	-0.000122%	5319.9934	-0.000124%
	110.0	5319.9932	-0.000128%	5319.9934	-0.000124%	5319.9936	-0.000120%
	93.5	5319.9932	-0.000128%	5319.9936	-0.000120%	5319.9937	-0.000118%
20	126.5	5319.9955	-0.000085%	5319.9955	-0.000085%	5319.9955	-0.000085%
	110.0	5319.9952	-0.000090%	5319.9953	-0.000088%	5319.9953	-0.000088%
	93.5	5319.9955	-0.000085%	5319.9956	-0.000083%	5319.9954	-0.000086%
10	126.5	5319.9934	-0.000124%	5319.9936	-0.000120%	5319.9938	-0.000117%
	110.0	5319.9932	-0.000128%	5319.9935	-0.000122%	5319.9938	-0.000117%
	93.5	5319.9935	-0.000122%	5319.9935	-0.000122%	5319.9937	-0.000118%
0	126.5	5319.9945	-0.000103%	5319.9945	-0.000103%	5319.9946	-0.000102%
	110.0	5319.9944	-0.000105%	5319.9946	-0.000102%	5319.9947	-0.000100%
	93.5	5319.9944	-0.000105%	5319.9944	-0.000105%	5319.9947	-0.000100%
-10	126.5	5320.0039	0.000073%	5320.0041	0.000077%	5320.0043	0.000081%
	110.0	5320.004	0.000075%	5320.0042	0.000079%	5320.0043	0.000081%
	93.5	5320.0041	0.000077%	5320.0042	0.000079%	5320.0043	0.000081%
-20	126.5	5320.0185	0.000348%	5320.0184	0.000346%	5320.0186	0.000350%
	110.0	5320.0184	0.000346%	5320.0185	0.000348%	5320.0186	0.000350%
	93.5	5320.0185	0.000348%	5320.0186	0.000350%	5320.0186	0.000350%
-30	126.5	5320.019	0.000357%	5320.0210	0.000395%	5320.0220	0.000414%
	110.0	5320.02	0.000376%	5320.0220	0.000414%	5320.0210	0.000395%
	93.5	5320.019	0.000357%	5320.0220	0.000414%	5320.0220	0.000414%

5.7 BAND EDGES MEASUREMENT

5.7.1 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
R&S SPECTRUM ANALYZER	FSP	1093.4495.30	Dec. 19, 2003

NOTE:

1. The measurement uncertainty is less than +/- 2.6dB, which is calculated as per the NAMAS document NIS81.
2. 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 RBW of spectrum analyzer to 1MHz and VBW of spectrum analyzer to 300Hz 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.

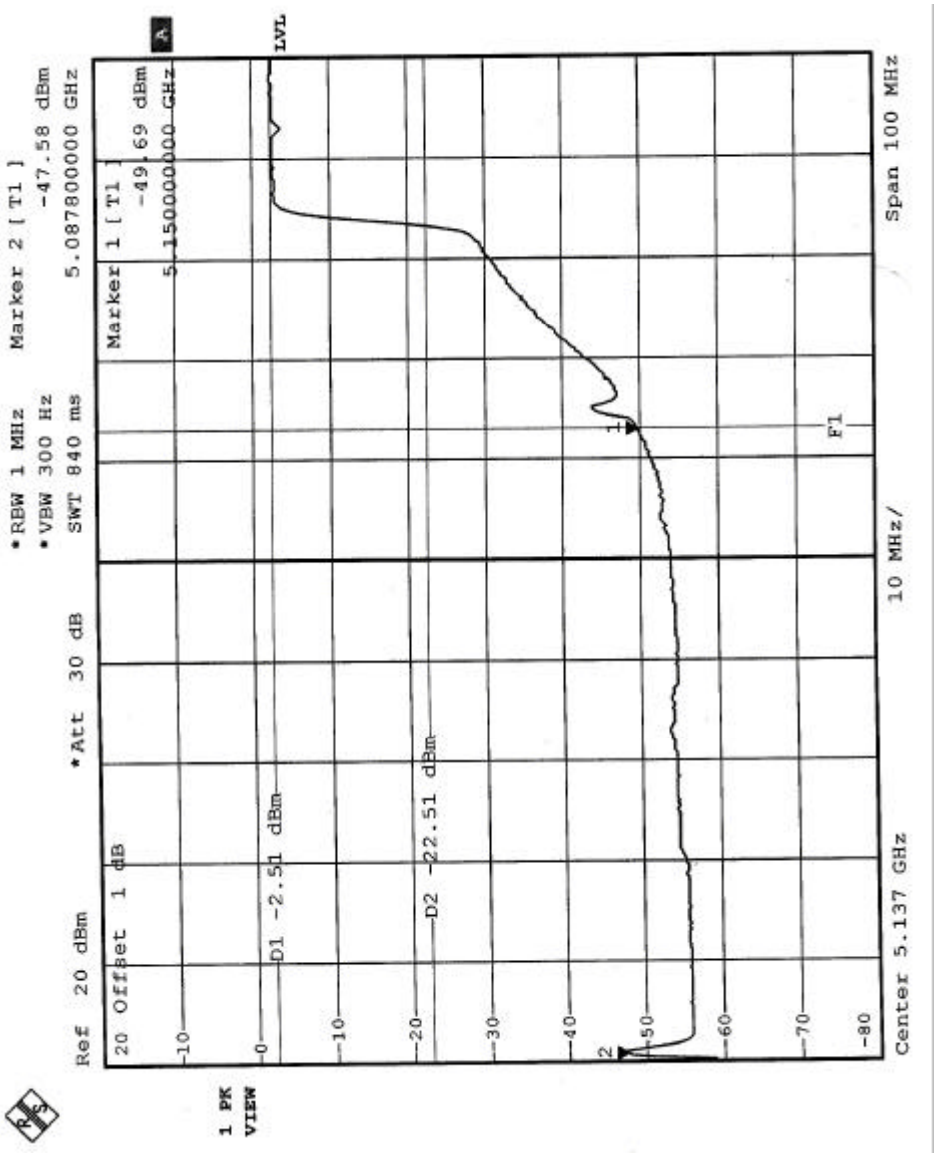
5.7.4 TEST RESULTS

For signals in the restricted bands above and below the 5.15 to 5.35 GHz 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 (Average RBW=1MHz, VBW=300Hz) are attached on the following 4 pages.

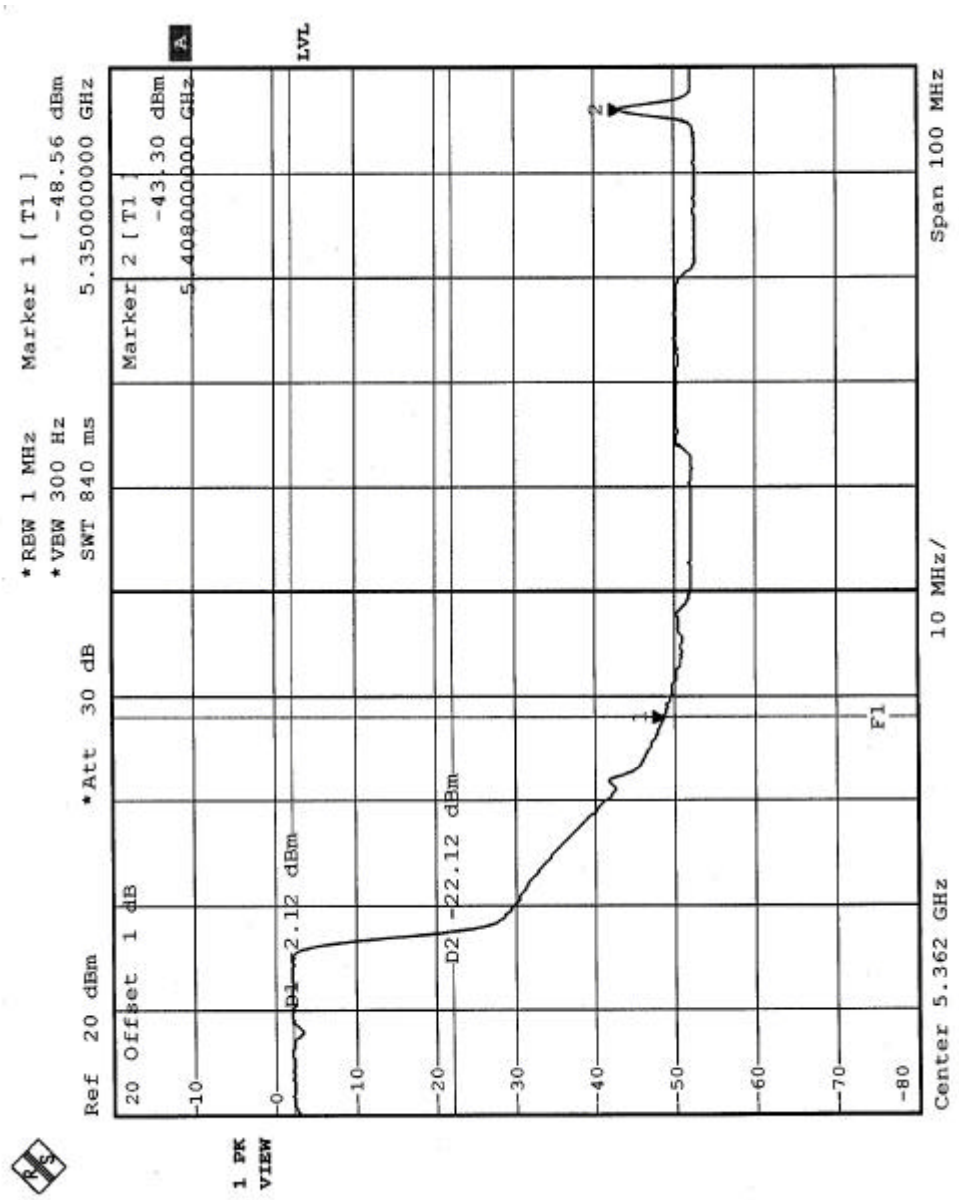
Normal Mode: Channel 1 (5180 MHz)

The band edge emission plot on the following page shows 45.07dBc (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 (normal mode) is 95.7dBuV/m, so the maximum field strength in restrict band is 95.7-45.07=50.63dBuV/m which is under 54dBuV/m limit.



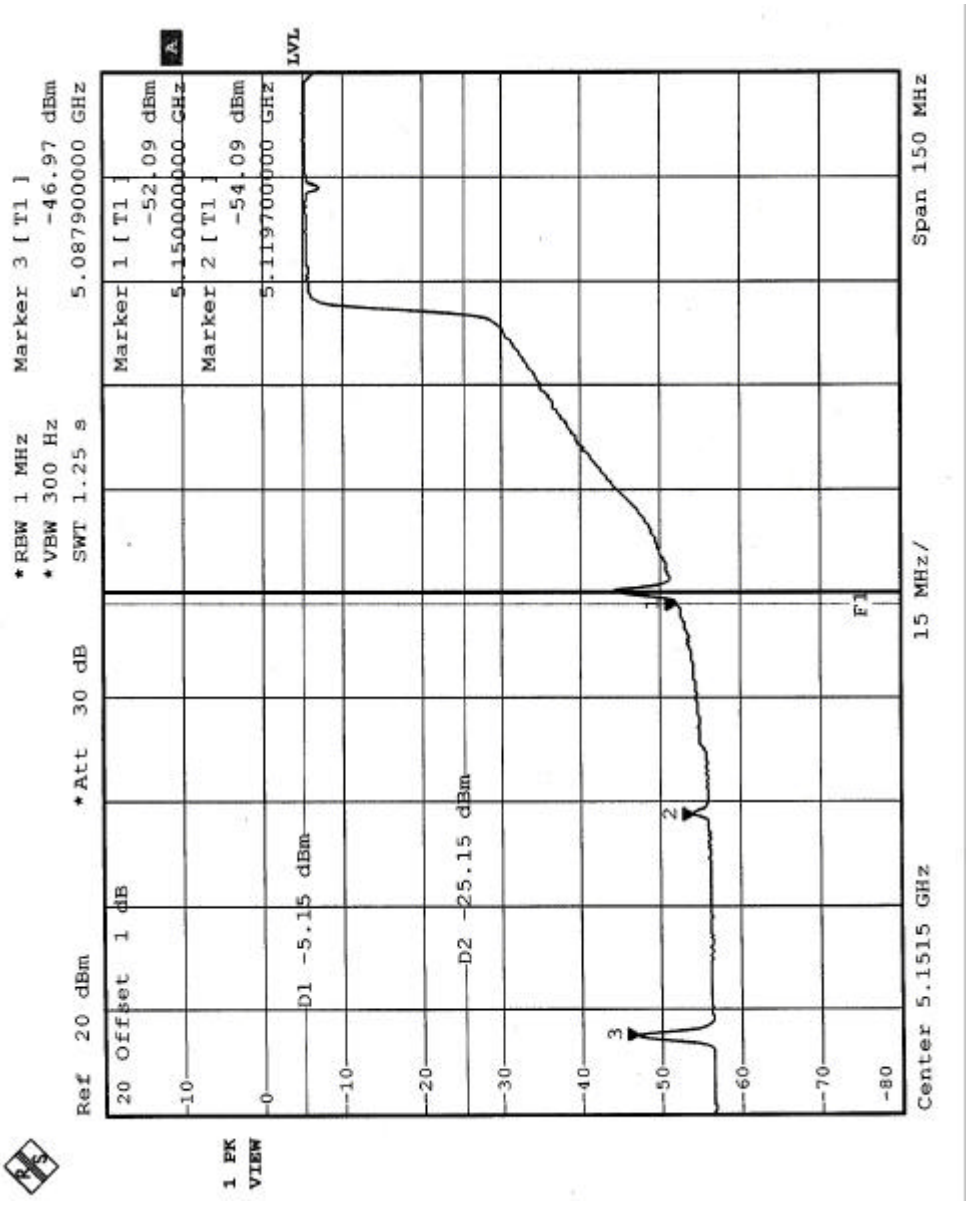
Normal Mode: Channel 8 (5320 MHz)

The band edge emission plot on the following page shows 41.18dBc (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 (normal mode) is 94.0dBuV/m, so the maximum field strength in restrict band is 94.0-41.18=52.82dBuV/m which is under 54dBuV/m limit.



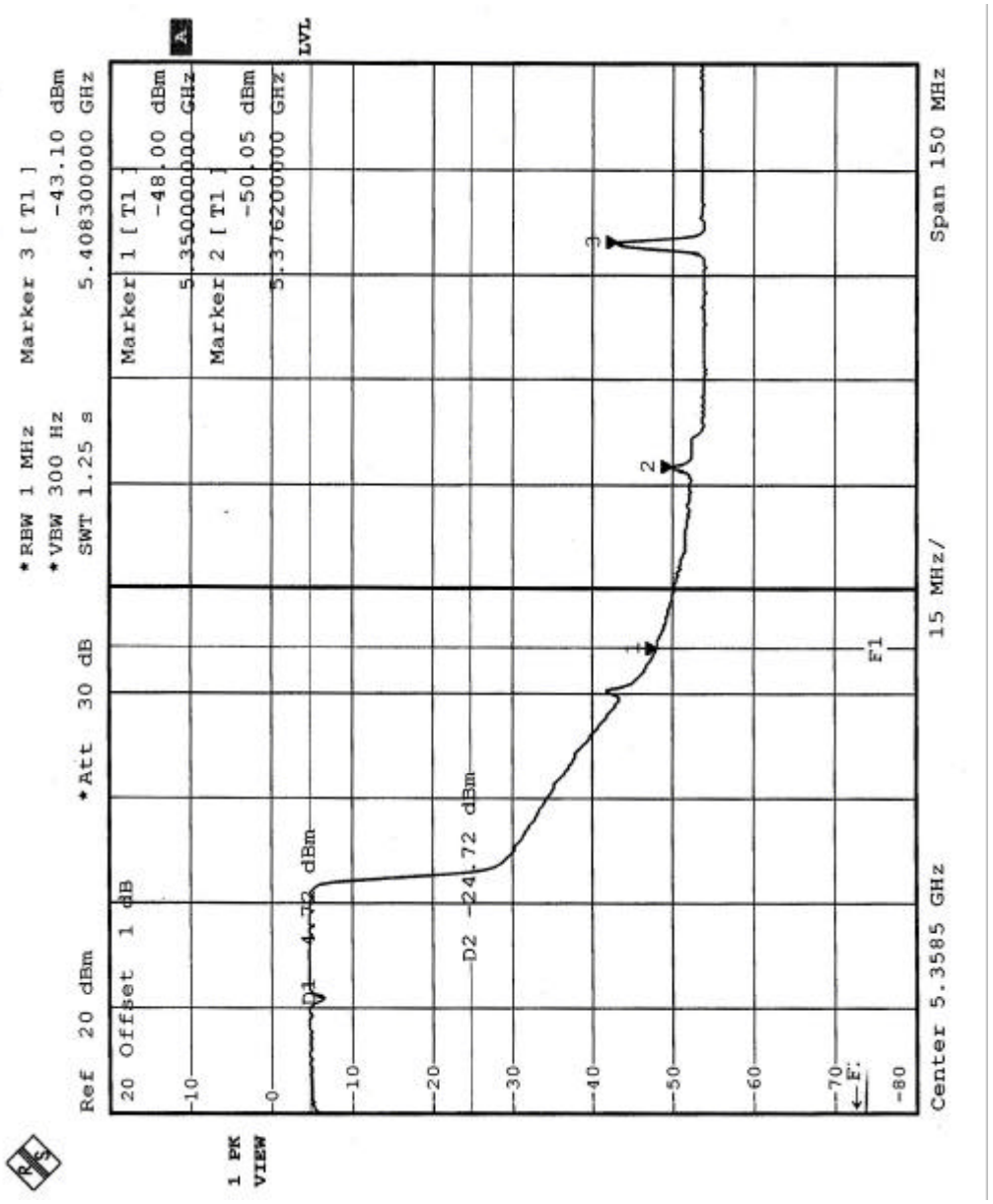
Turbo Mode: Channel 1 (5210 MHz)

The band edge emission plot on the following page shows 41.82dBc (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 (turbo mode) is 92.2dBuV/m, so the maximum field strength in restrict band is 92.2-41.82=50.38dBuV/m which is under 54dBuV/m limit.



Turbo Mode: Channel 3 (5290 MHz)

The band edge emission plot on the following page shows 38.38dBc (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 (turbo mode) is 91.2dBuV/m, so the maximum field strength in restrict band is 91.2-38.38=52.82dBuV/m which is under 54dBuV/m limit.



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.

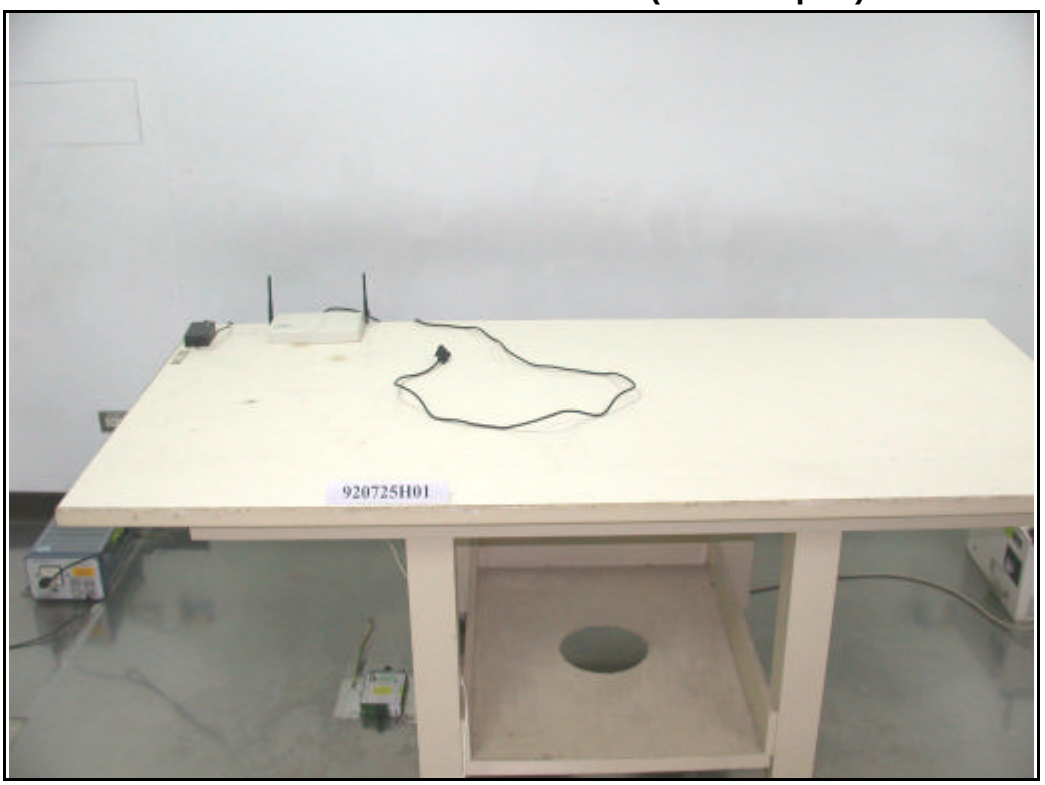
And according to FCC 47 CFR Section 15.407(a), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

5.8.2 ANTENNA CONNECTED CONSTRUCTION

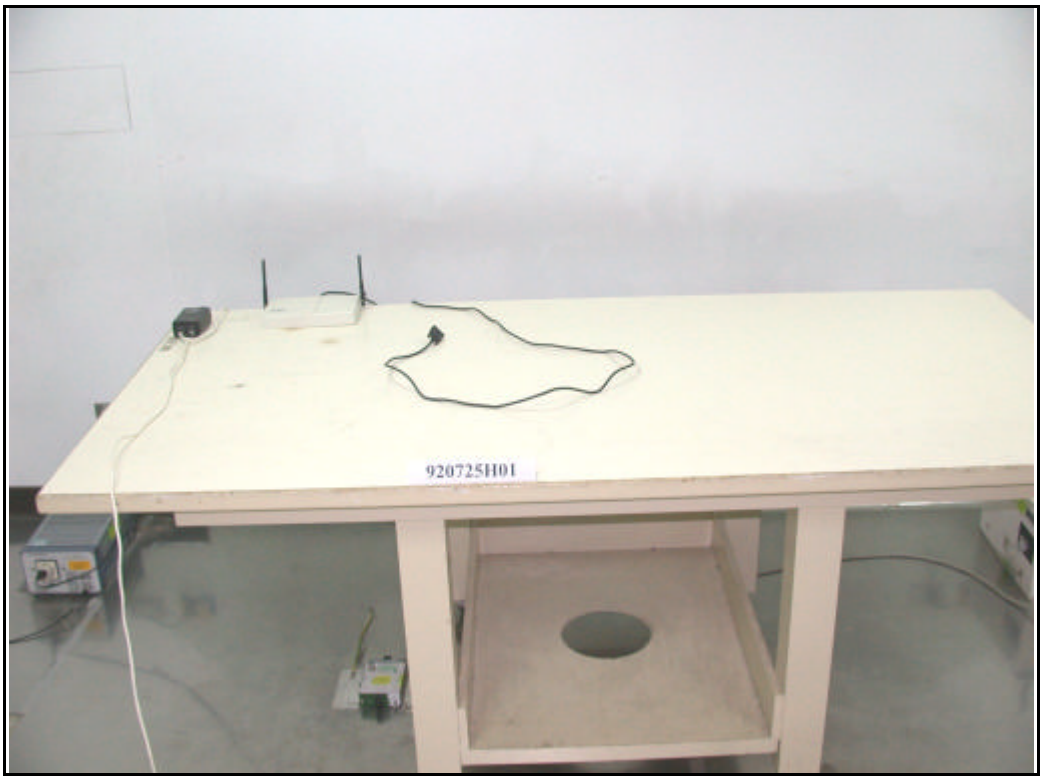
The antenna used in this product is Dual-Band Omni-Directional Antenna with MMCX R/A Plug connector. The maximum Gain of the antenna is 4.5dBi.

6. PHOTOGRAPHS OF THE TEST CONFIGURATION

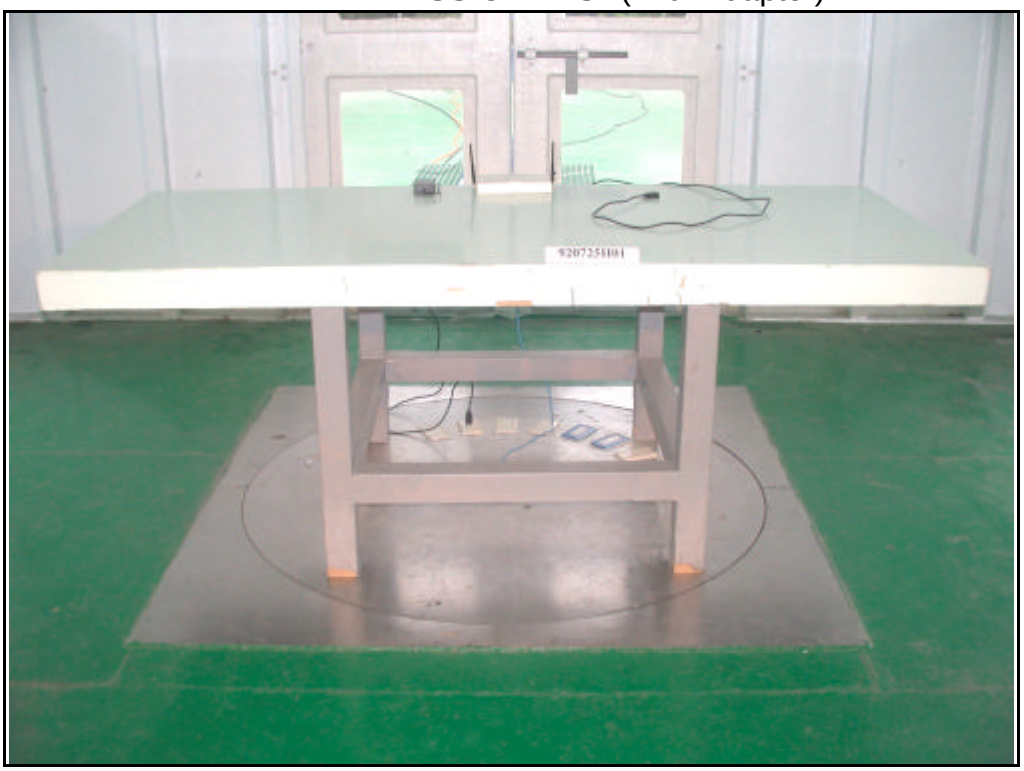
CONDUCTED EMISSION TEST (With Adapter)

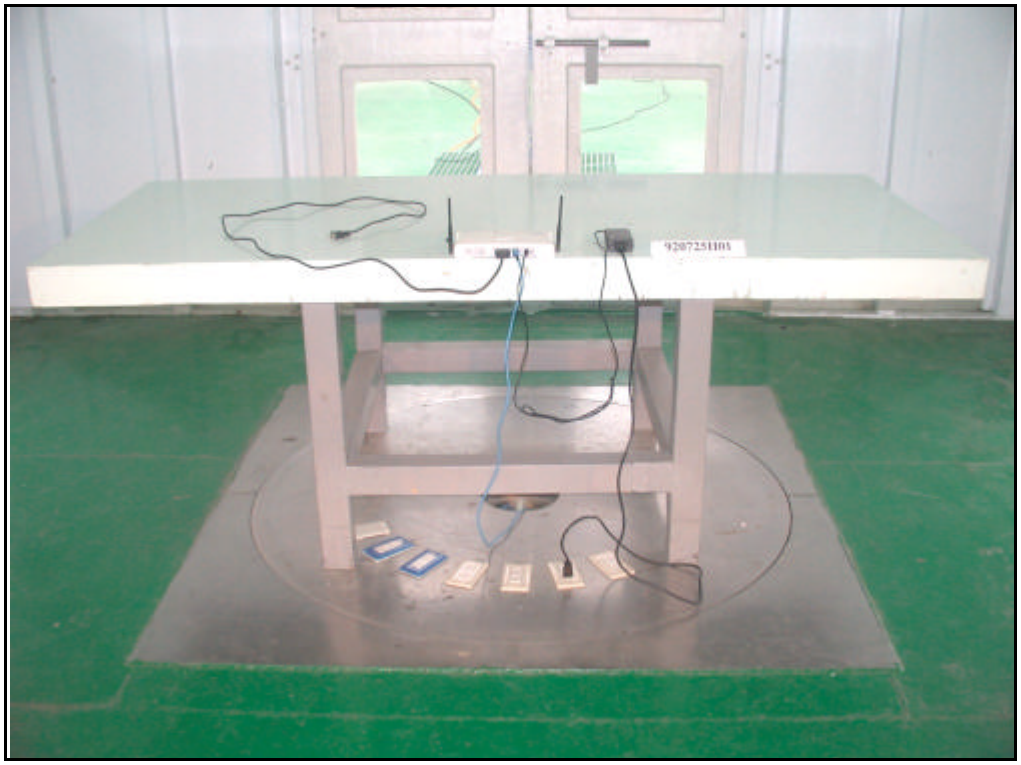


CONDUCTED EMISSION TEST (With POE)

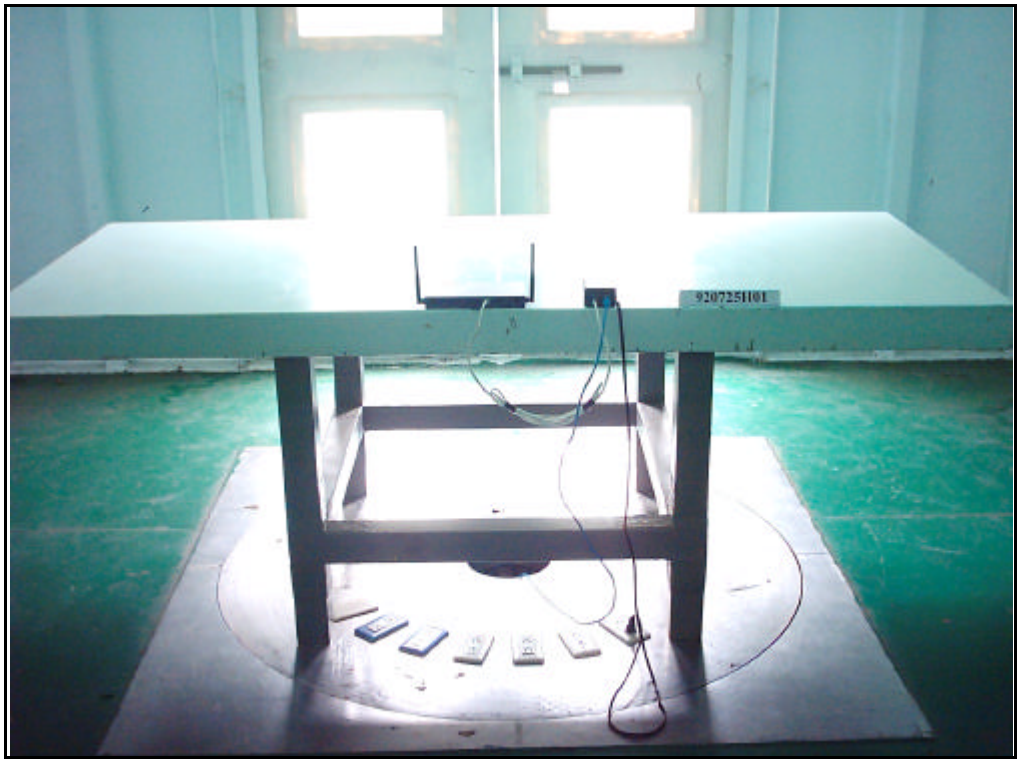


RADIATED EMISSION TEST (With Adapter)





RADIATED EMISSION TEST (With POE)



7. 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, UL
Germany	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: 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.