

4.4.7 TEST RESULTS

EUT	Wireless-G Access Point	MODEL	WAP54G v2
MODE	CCK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	24deg. C, 70%RH, 991hPa	TESTED BY	Allen Chang

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	12.50	30	PASS
6	2437	12.50	30	PASS
11	2462	12.50	30	PASS

EUT	Wireless-G Access Point	MODEL	WAP54G v2
MODE	OFDM	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	24deg. C, 70%RH, 991hPa	TESTED BY	Allen Chang

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	12.50	30	PASS
6	2437	12.50	30	PASS
11	2462	12.50	30	PASS

4.5 POWER SPECTRAL DENSITY MEASUREMENT

4.5.1 LIMITS OF POWER SPECTRAL DENSITY MEASUREMENT

The Maximum of Power Spectral Density Measurement is 8dBm.

4.5.2 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.

4.5.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer through an attenuator, the bandwidth of the fundamental frequency was measured with the spectrum analyzer using 3kHz RBW and 30kHz VBW, set sweep time=span/3kHz. The power spectral density was measured and recorded.

The sweep time is allowed to be longer than span/3KHz for a full response of the mixer in the spectrum analyzer.

4.5.4 DEVIATION FROM TEST STANDARD

No deviation

4.5.5 TEST SETUP



4.5.6 EUT OPERATING CONDITIONS

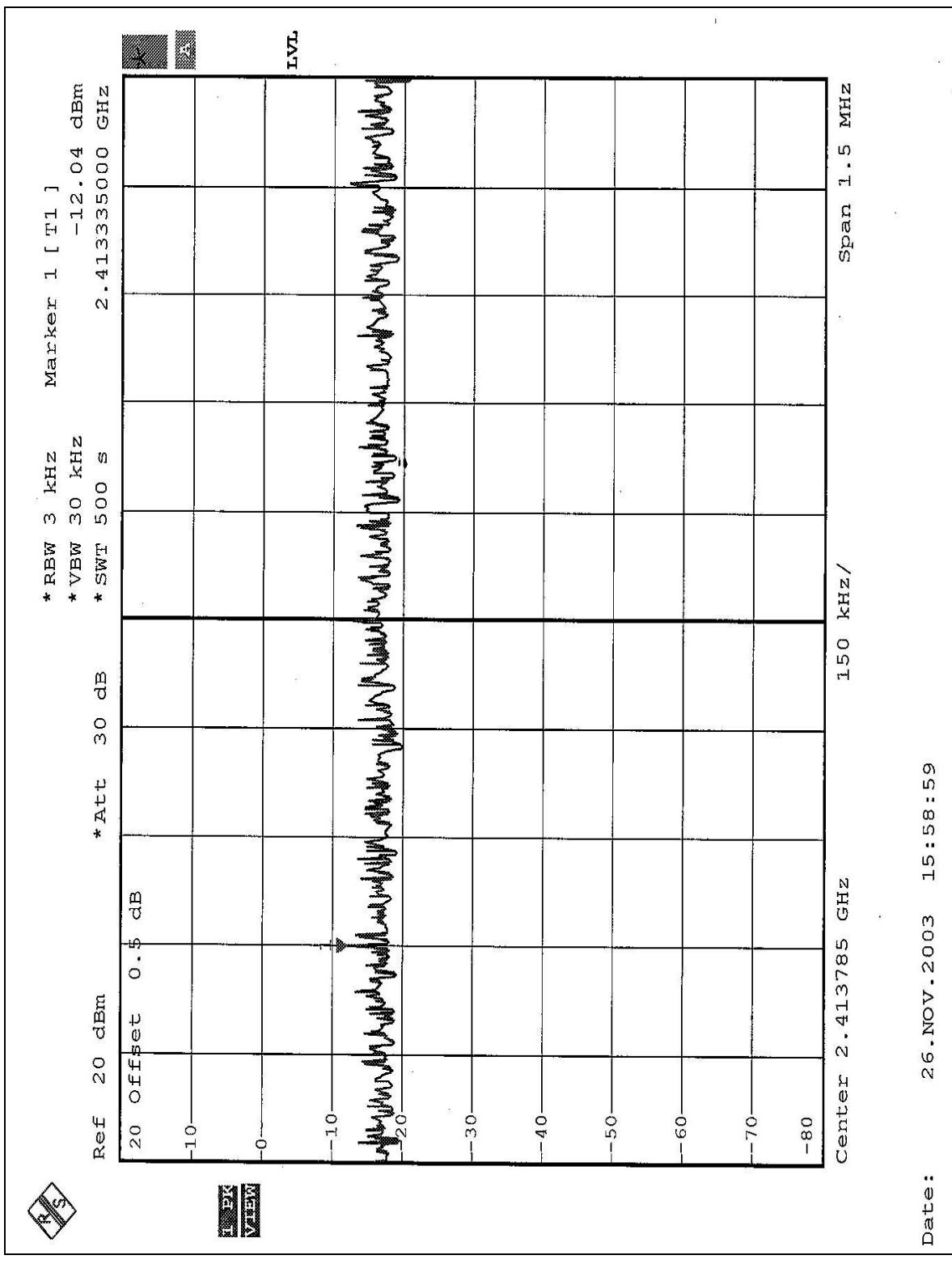
Same as 4.3.6

4.5.7 TEST RESULTS

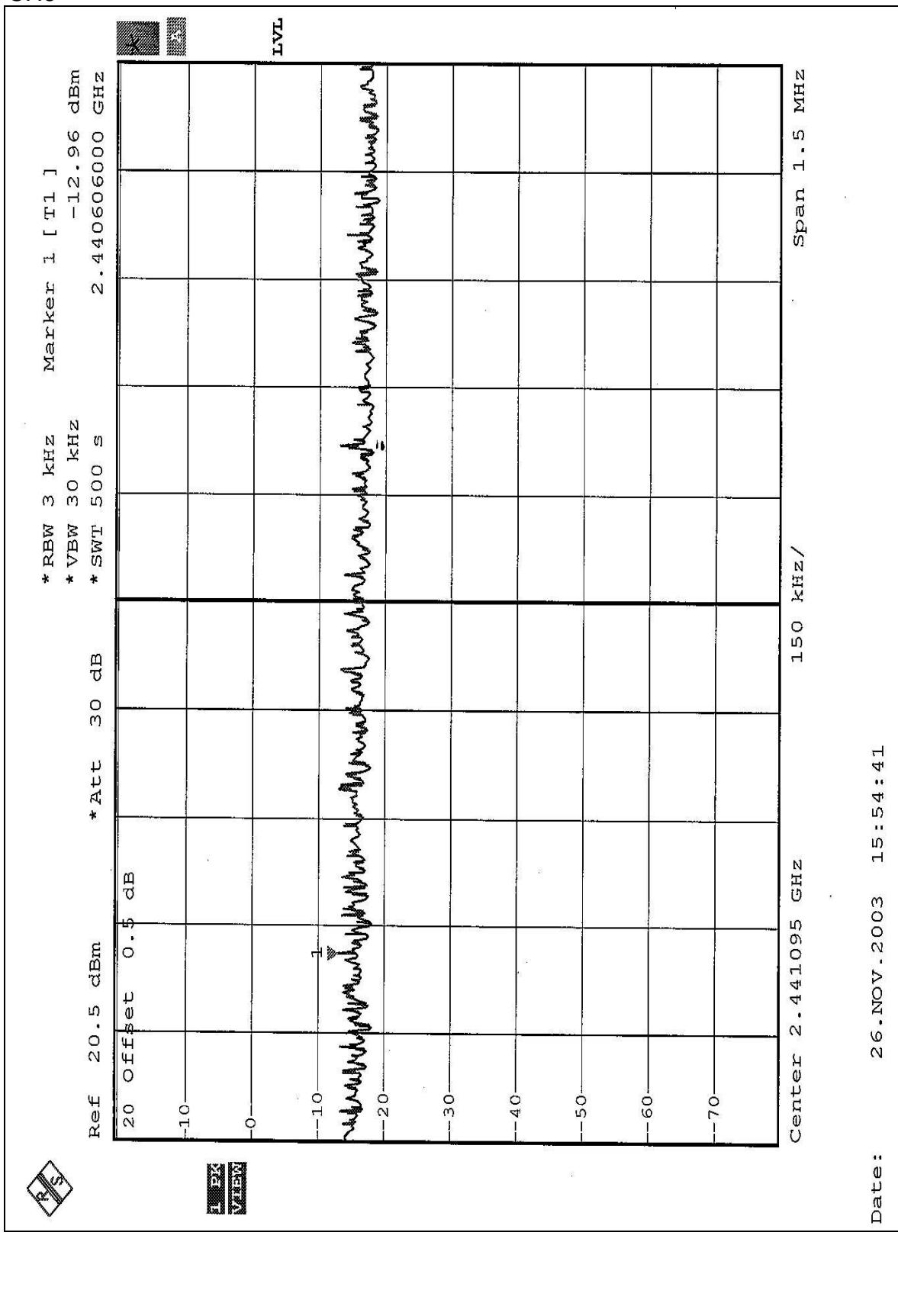
EUT	Wireless-G Access Point	MODEL	WAP54G v2
MODE	CCK	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	24deg. C, 70%RH, 991hPa	TESTED BY	Allen Chang

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-12.04	8	PASS
6	2437	-12.96	8	PASS
11	2462	-12.38	8	PASS

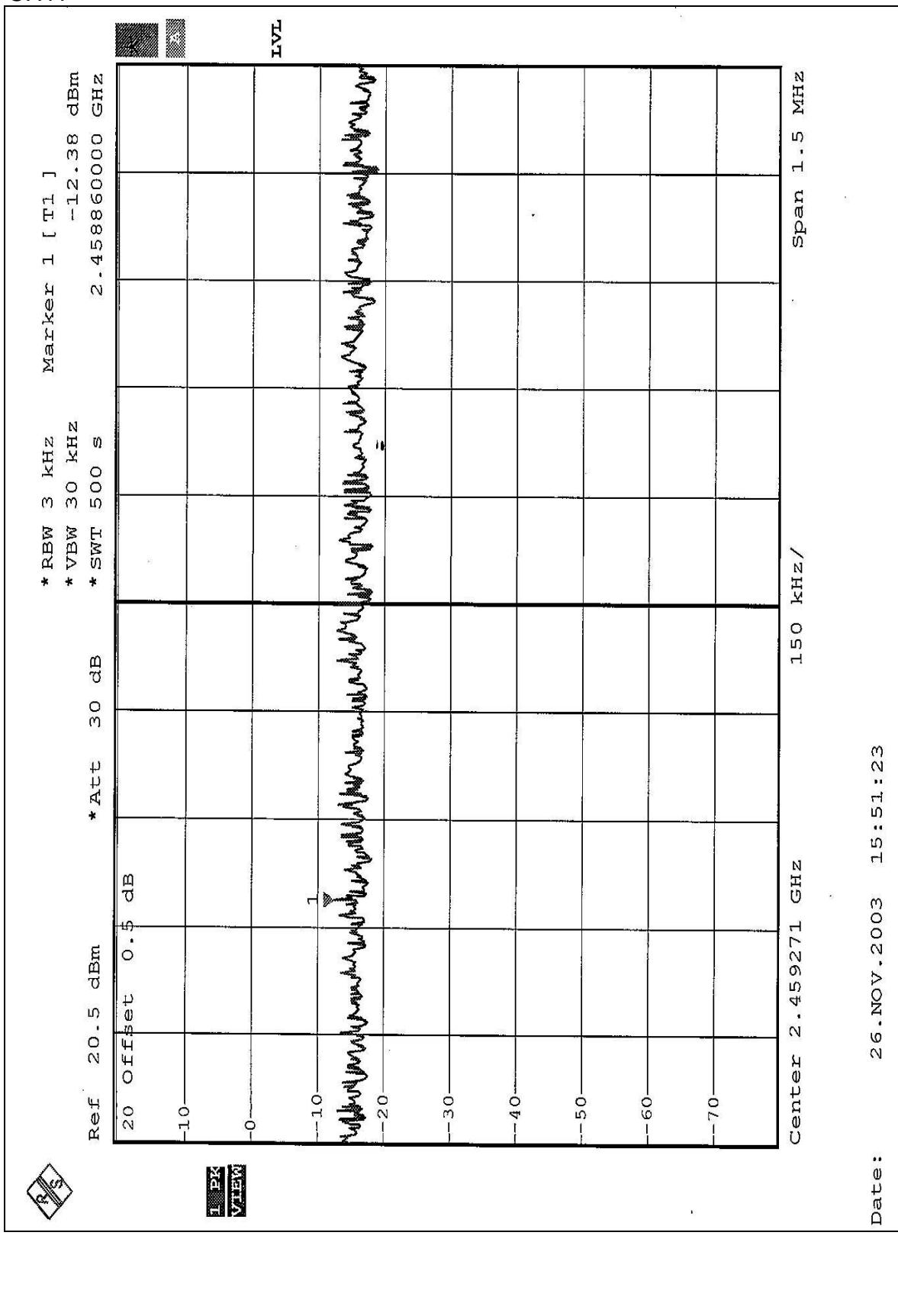
CH1



CH6



CH11



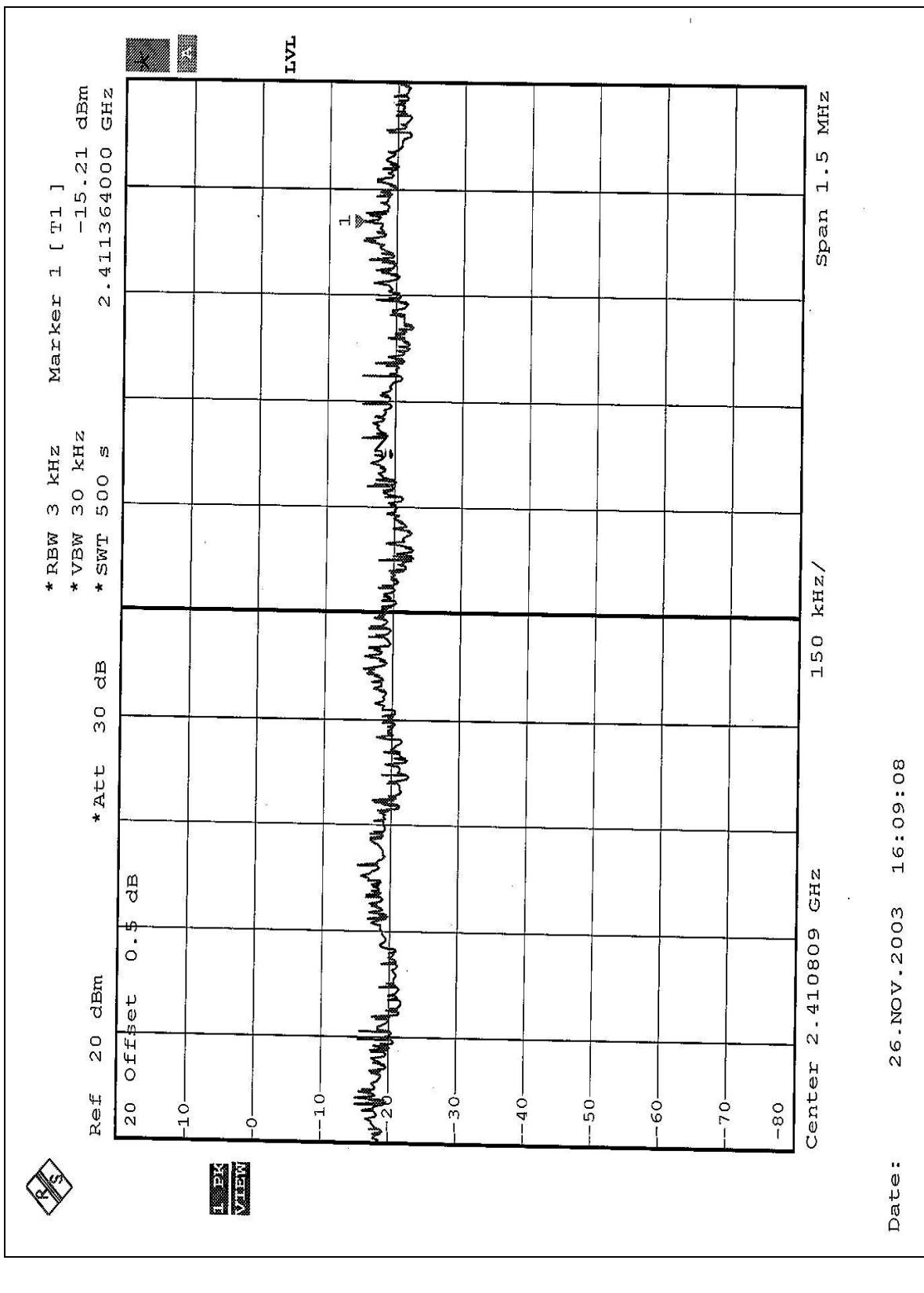
FCC ID: Q87-WAP54GV2



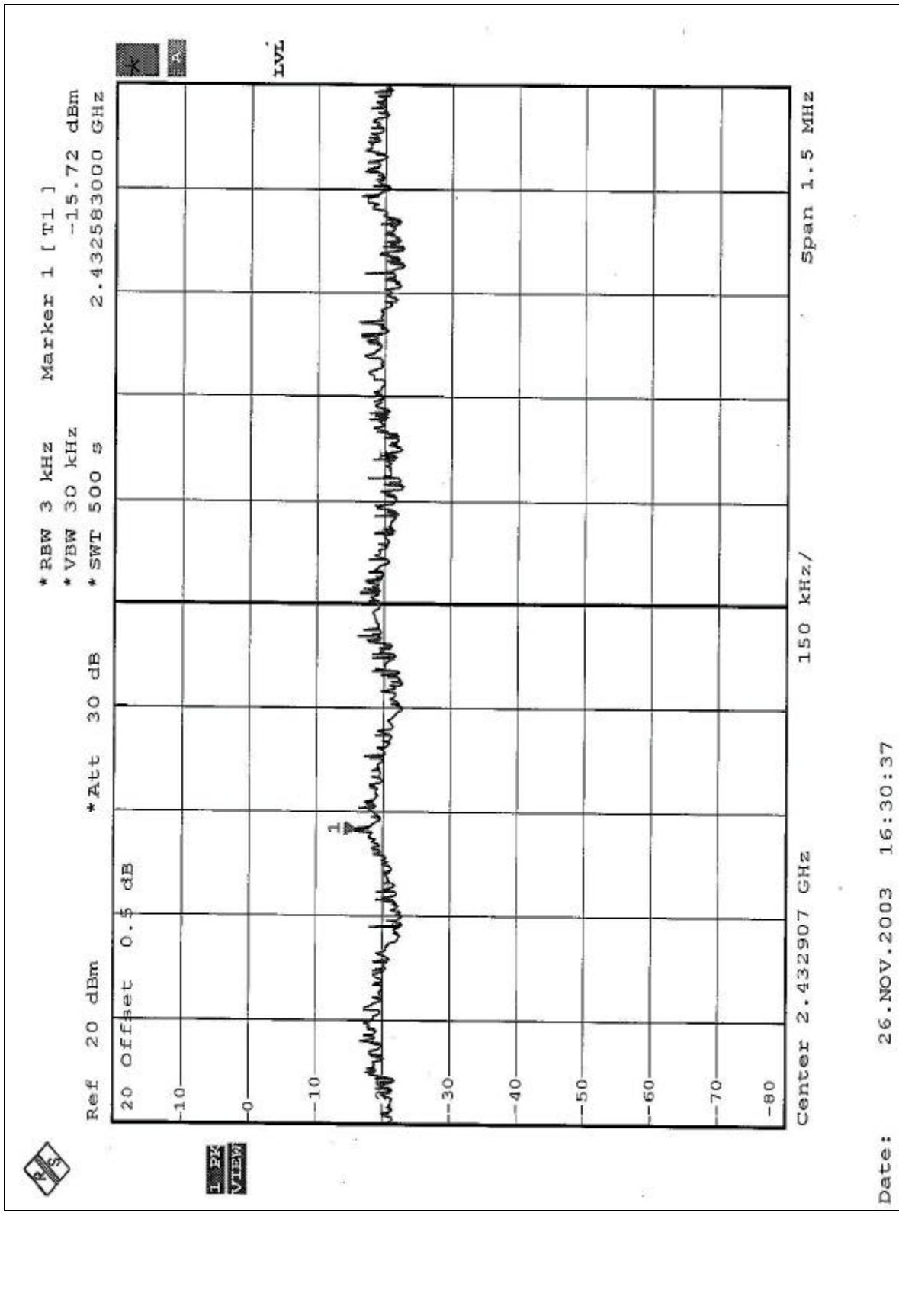
EUT	Wireless-G Access Point	MODEL	WAP54G v2
MODE	OFDM	INPUT POWER (SYSTEM)	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	26deg. C, 65%RH, 991hPa	TESTED BY	Allen Chang

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-15.21	8	PASS
6	2437	-15.72	8	PASS
11	2462	-15.83	8	PASS

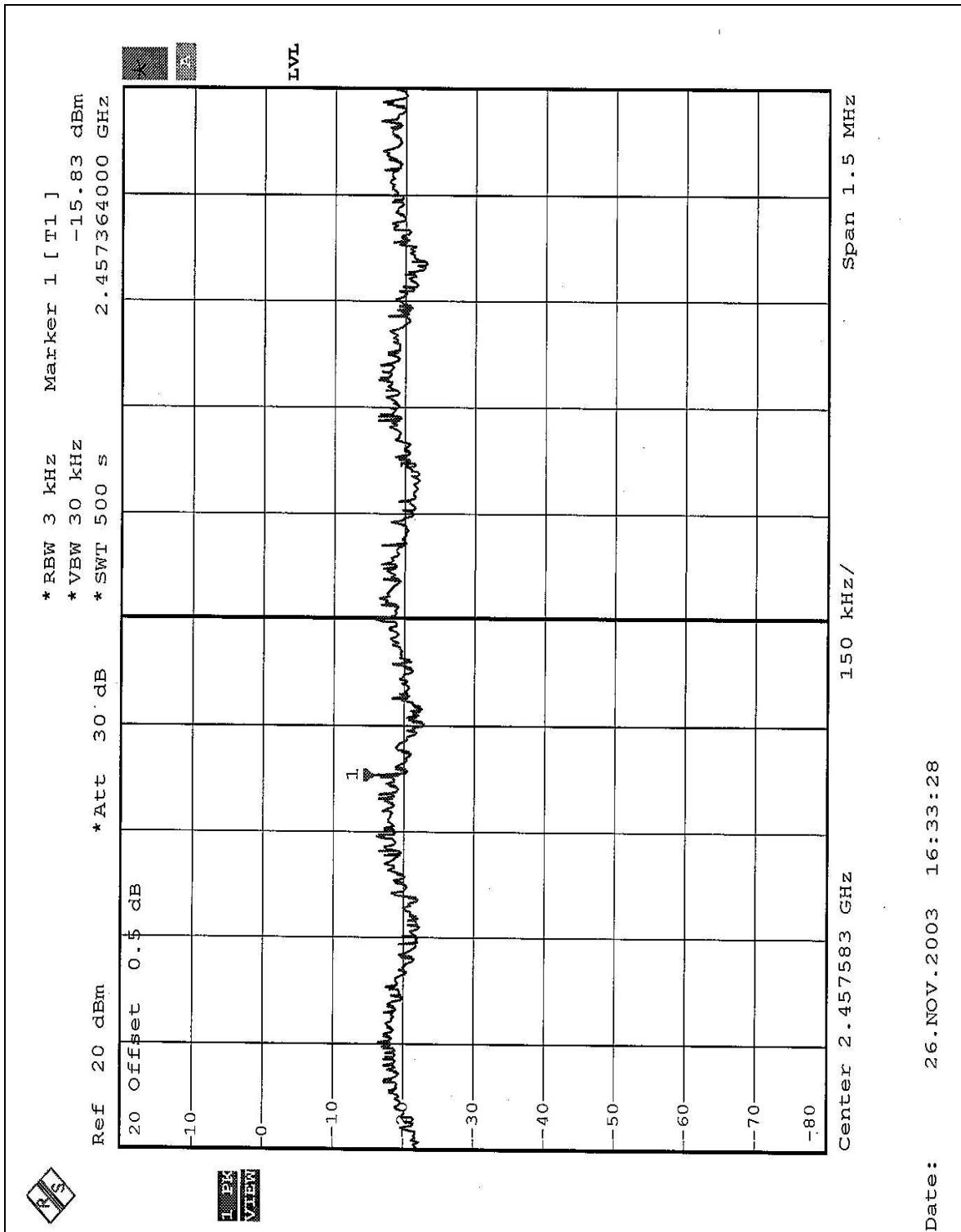
CH1



CH6



CH11



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 loss cable. Set both RBW and VBW of spectrum analyzer to 100kHz for CCK technique and RBW = 1MHz and VBW = 300Hz 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

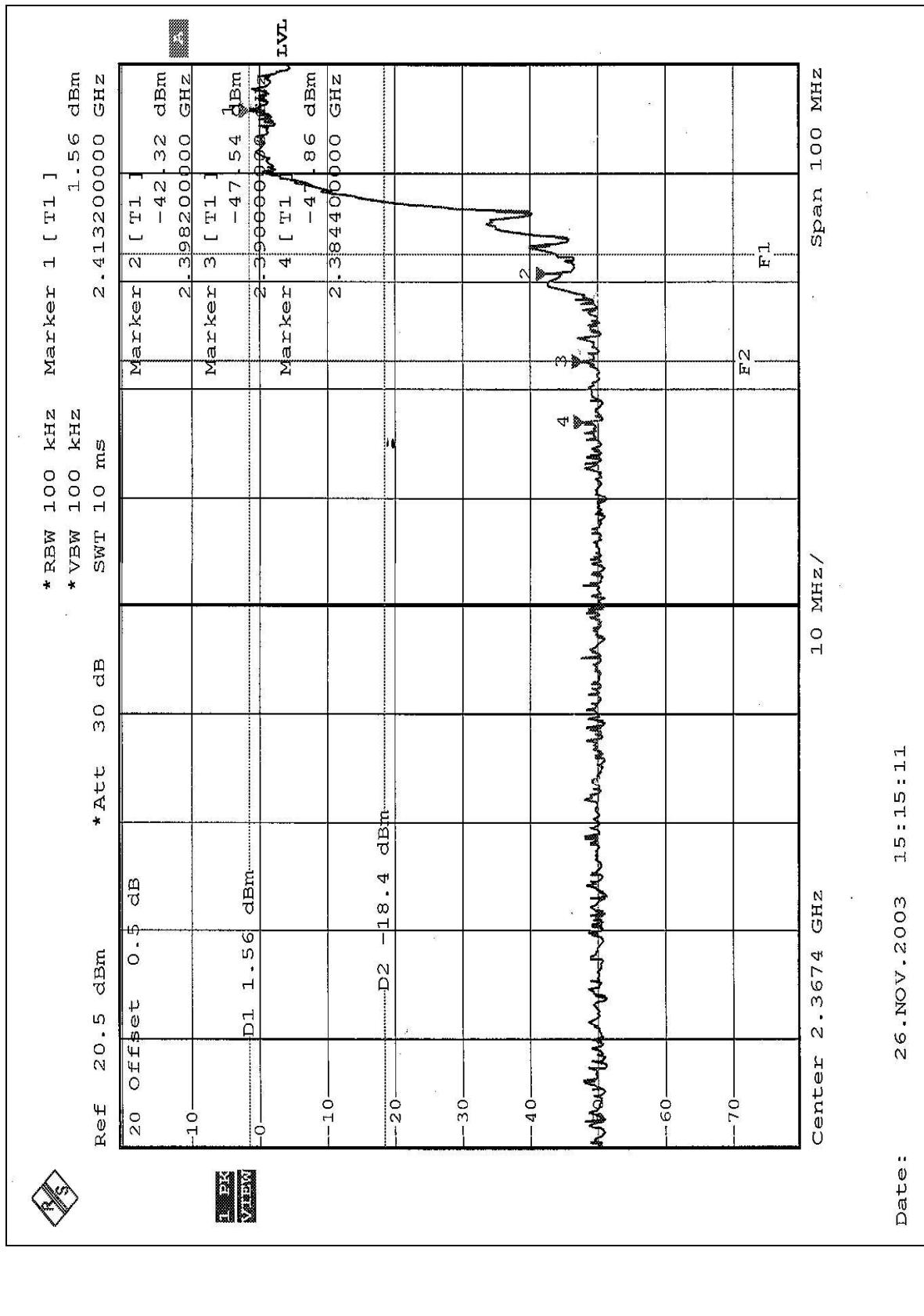
The spectrum plots are attached on the following 2 pages. D2 line indicates the highest level, D1 line indicates the 20dB offset below D2. It shows compliance with the requirement in part 15.247(C).

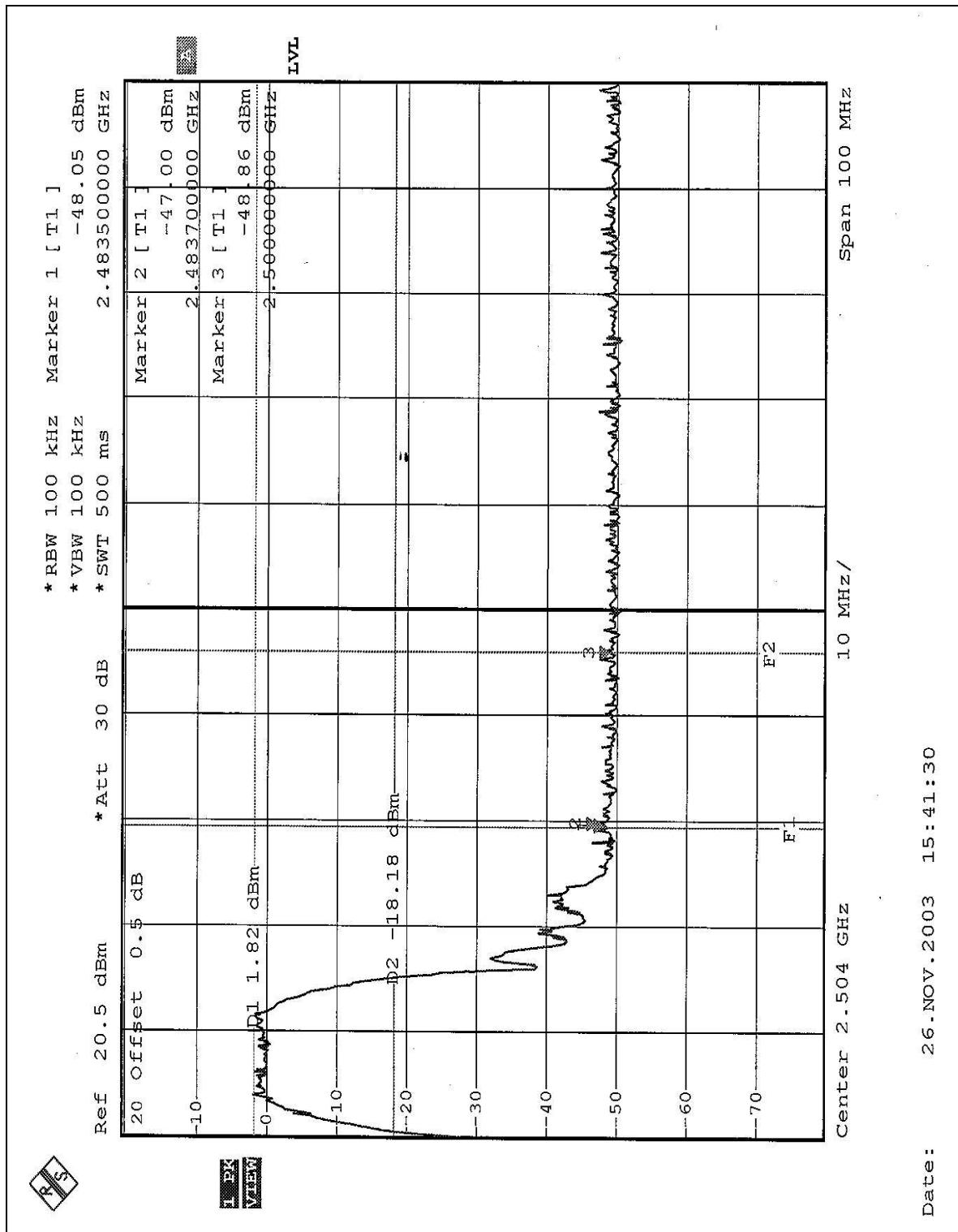
NOTE 1: The band edge emission plot of the CCK technique on the first page shows 49.1dB delta between carrier maximum power and local maximum emission in restrict band 2.3900GHz. The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 93.07dB_{UV}/m, so the maximum field strength in restrict band is $93.07 - 49.1 = 43.97$ dB_{UV}/m which is under 54dB_{UV}/m limit.

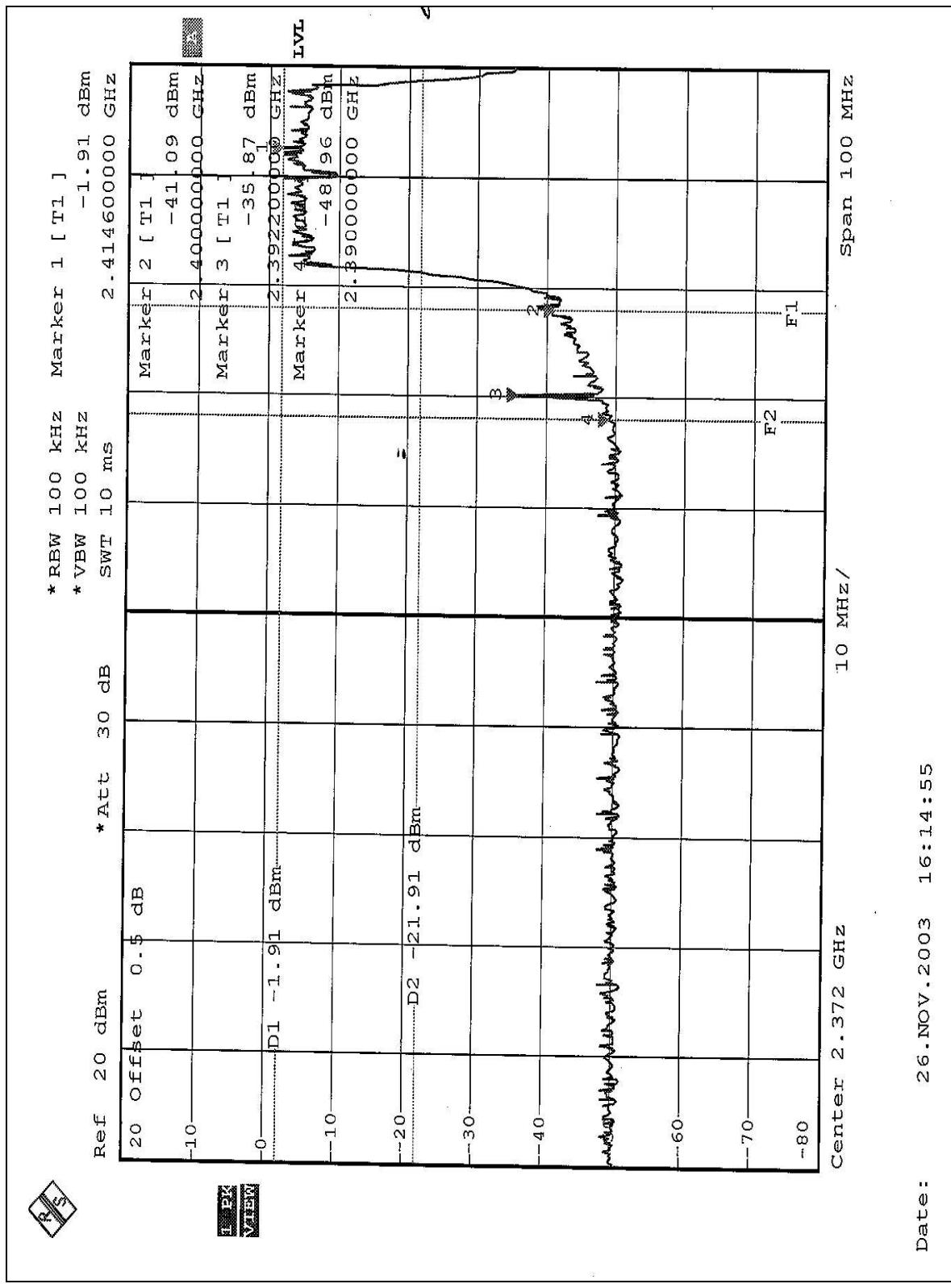
NOTE 2: The band edge emission plot of the CCK technique on the second page shows 48.82dB delta between carrier maximum power and local maximum emission in restrict band 2.4837GHz. The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 93.21dB_{UV}/m, so the maximum field strength in restrict band is $93.21 - 48.82 = 44.39$ dB_{UV}/m which is under 54dB_{UV}/m limit.

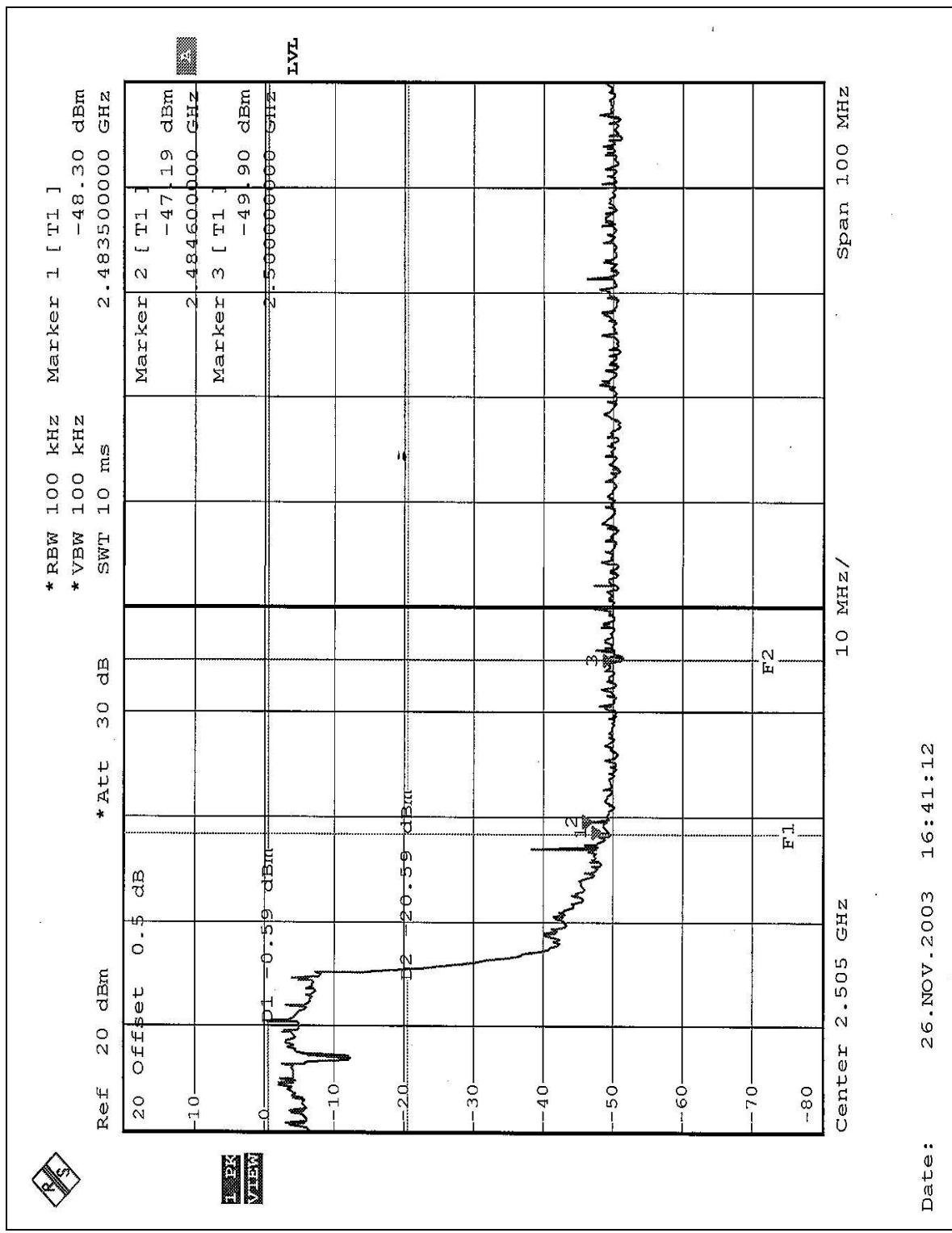
NOTE 3: The band edge emission plot of the OFDM technique on the third page shows 47.05dB delta between carrier maximum power and local maximum emission in restrict band 2.3900GHz. The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 94.29dB_{UV}/m, so the maximum field strength in restrict band is $94.29 - 47.05 = 47.24$ dB_{UV}/m which is under 54dB_{UV}/m limit.

NOTE 4: The band edge emission plot of the OFDM technique on the fourth page shows 46.6dB delta between carrier maximum power and local maximum emission in restrict band 2.4846GHz. The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 94.99dB_{UV}/m, so the maximum field strength in restrict band is $94.99 - 46.6 = 48.39$ dB_{UV}/m which is under 54dB_{UV}/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

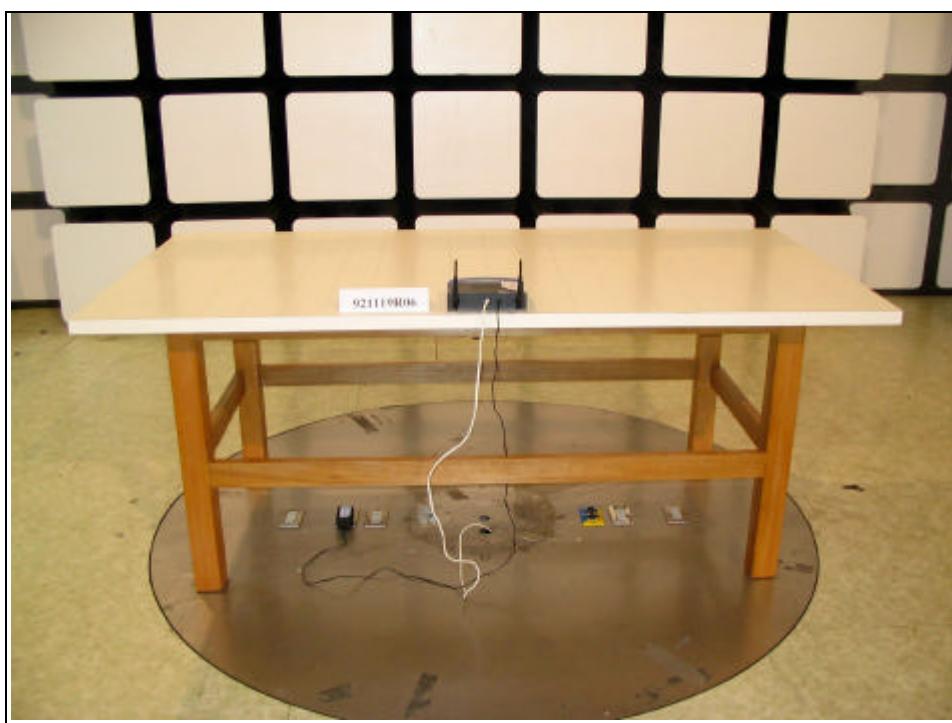
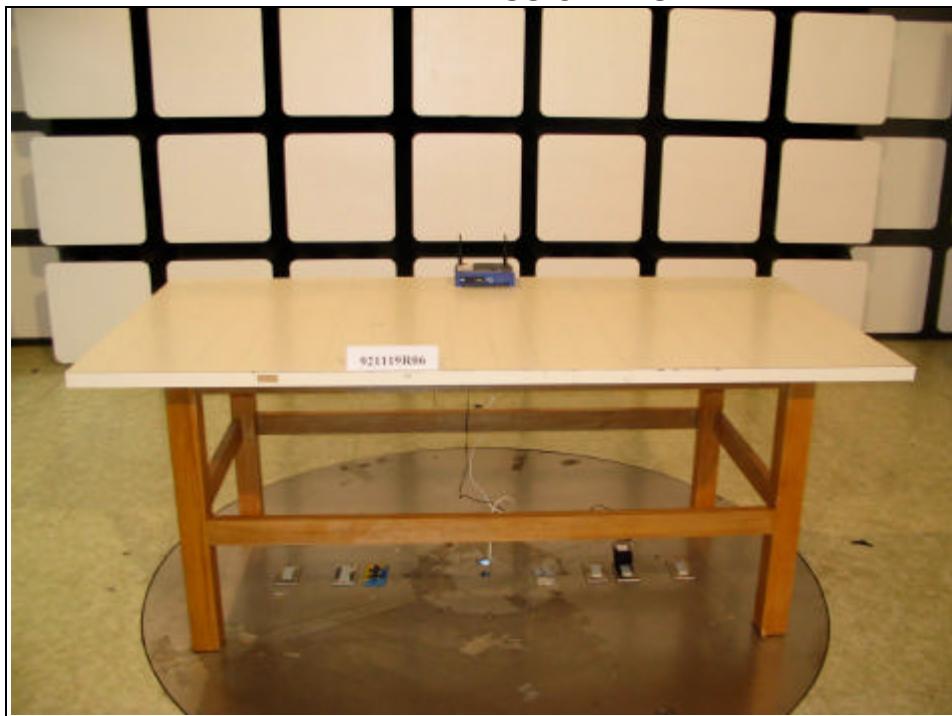
The antenna type used in this product is Dipole Antenna with reverse TNC connector. The maximum Gain of this antenna is only 2dBi.

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 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
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.