

3.10 MAXIMUM PEAK OUTPUT POWER

3.10.1 LIMITS OF MAXIMUM PEAK OUTPUT POWER MEASUREMENT

The Maximum Peak Output Power Measurement is 30dBm.

3.10.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
R&S SPECTRUM ANALYZER	FSP40	100036	Nov. 23, 2005
Agilent SIGNAL GENERATOR	E8257C	MY43320668	Dec. 07, 2005
TEKTRONIX OSCILLOSCOPE	TDS 220	B027241	Jun. 30, 2005
NARDA DETECTOR	4503A	FSCM99899	NA

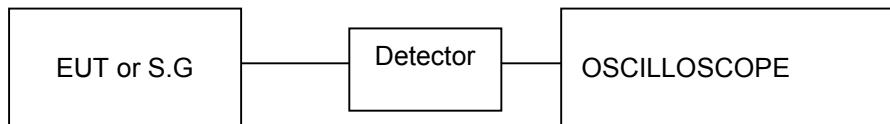
NOTE:

The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

3.10.3 TEST PROCEDURES

1. A detector was used on the output port of the EUT. An oscilloscope was used to read the peak response of the detector.
2. Replaced the EUT by the signal generator. The center frequency of the S.G was adjusted to the center frequency of the measured channel.
3. Adjusted the power to have the same peak reading on oscilloscope. Record the power level.

3.10.4 TEST SETUP



3.10.5 EUT OPERATING CONDITIONS

Same as Item 4.3.5

3.10.6 TEST RESULTS - DSSS

EUT	Upgrade Kit - 802.11g			
MODEL	WL-463		ENVIRONMENTAL CONDITIONS	24 deg. C, 62%RH, 977 hPa
INPUT POWER (SYSTEM)	120Vac, 60 Hz		TESTED BY	Rex Huang

Antenna 1 (Gain : 6 dBi)+Cable loss (-0.6dB)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	14.17	30	PASS
6	2437	18.25	30	PASS
11	2462	14.18	30	PASS

Antenna 2 (Gain : 8 dBi)+Cable loss (-0.6dB)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	11.52	30	PASS
6	2437	18.25	30	PASS
11	2462	11.50	30	PASS

Antenna 3 (Gain : 3 dBi)+Cable lass (-0.6dB)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	15.88	30	PASS
6	2437	18.25	30	PASS
11	2462	15.67	30	PASS

Antenna 4 (Gain : 6 dBi)+Cable loss (-0.6dB)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	15.88	30	PASS
6	2437	18.25	30	PASS
11	2462	15.33	30	PASS

3.10.7 TEST RESULTS - OFDM

EUT	Upgrade Kit - 802.11g		
MODEL	WL-463	ENVIRONMENTAL CONDITIONS	24 deg. C, 62%RH, 977 hPa
INPUT POWER (SYSTEM)	120Vac, 60 Hz	TESTED BY	Rex Huang

Antenna 1 (Gain : 6 dBi) +Cable loss (-0.6dB)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	12.00	30	PASS
6	2437	19.37	30	PASS
11	2462	11.50	30	PASS
Turbo 6	2437	13.25	30	PASS

Antenna 2 (Gain : 8 dBi) +Cable loss (-0.6dB)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	10.68	30	PASS
6	2437	19.37	30	PASS
11	2462	10.00	30	PASS
Turbo 6	2437	13.25	30	PASS

Antenna 3 (Gain : 3 dBi) +Cable loss (-0.6dB)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	14.58	30	PASS
6	2437	20.05	30	PASS
11	2462	14.63	30	PASS
Turbo 6	2437	18.32	30	PASS

Antenna 4 (Gain : 6 dBi) +Cable loss (-0.6dB)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	14.62	30	PASS
6	2437	20.05	30	PASS
11	2462	14.63	30	PASS
Turbo 6	2437	16.50	30	PASS

3.11 POWER SPECTRAL DENSITY MEASUREMENT

3.11.1 LIMITS OF POWER SPECTRAL DENSITY MEASUREMENT

The Maximum of Power Spectral Density Measurement is 8dBm.

3.11.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
R&S SPECTRUM ANALYZER	FSP40	100036	Nov. 23, 2005

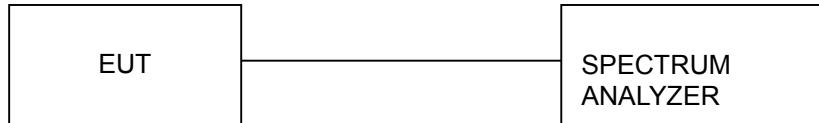
NOTE:

- 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.

3.11.3 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 3 kHz RBW and 30 kHz 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.

3.11.4 TEST SETUP



3.11.5 EUT OPERATING CONDITIONS

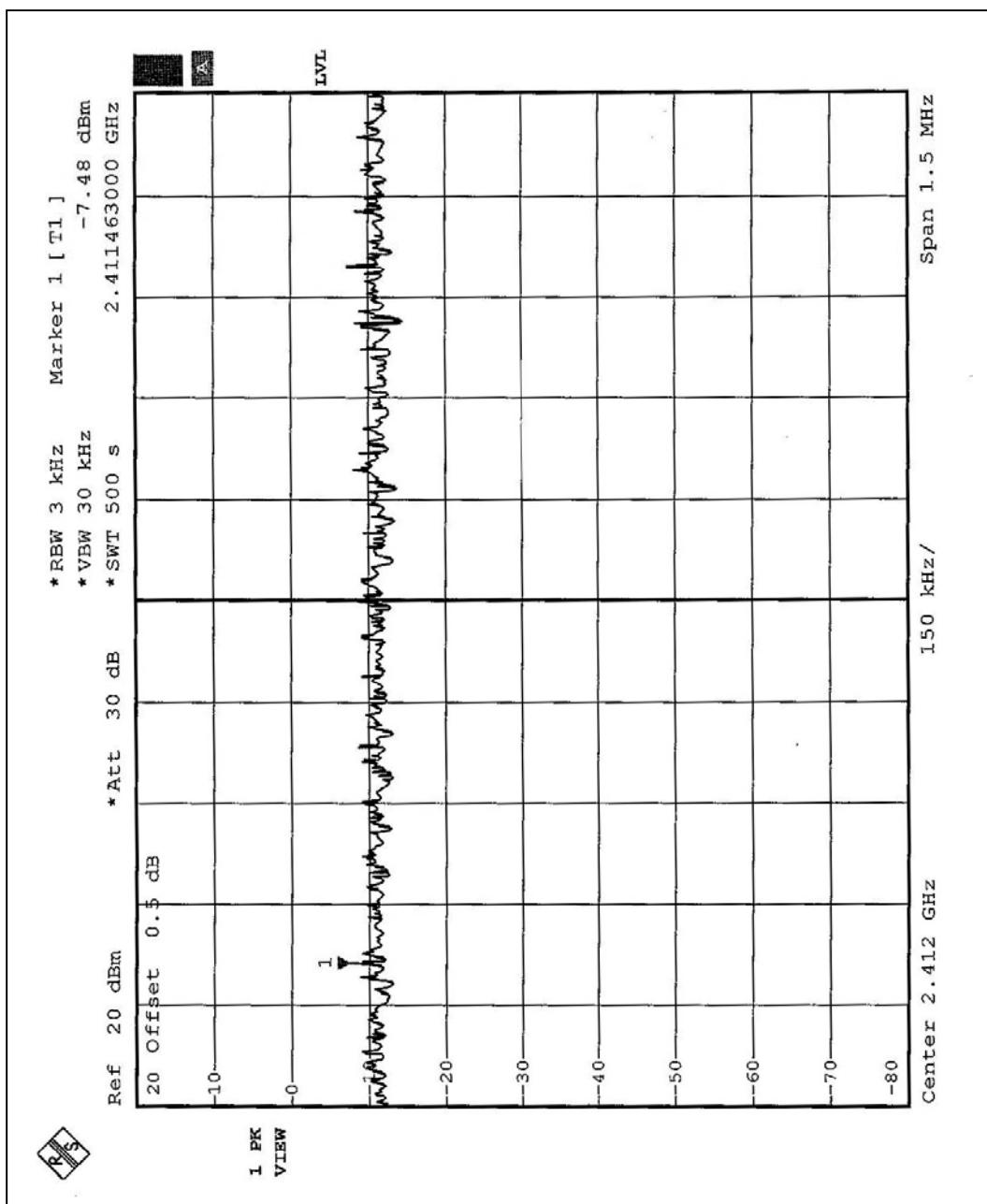
Same as 4.3.5

3.11.6 TEST RESULTS – DSSS(Mode 1,2,4)

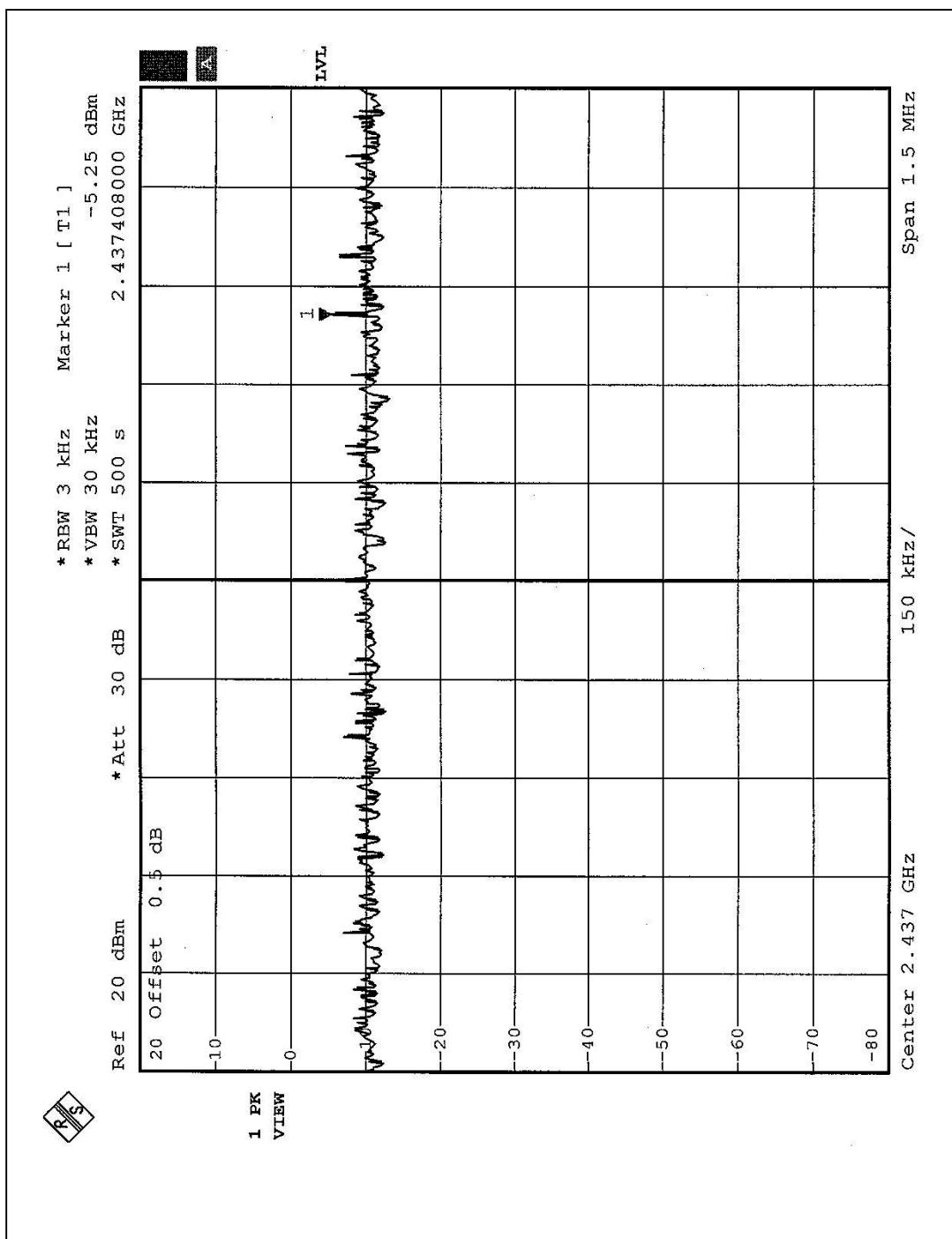
EUT	Upgrade Kit - 802.11g		
MODEL	WL-463	ENVIRONMENTAL CONDITIONS	23 deg. C, 58%RH, 977 hPa
INPUT POWER (SYSTEM)	120Vac, 60 Hz	TESTED BY	Eric Lee

CHANNEL NUMBER	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 KHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-7.48	8	PASS
6	2437	-5.25	8	PASS
11	2462	-8.30	8	PASS

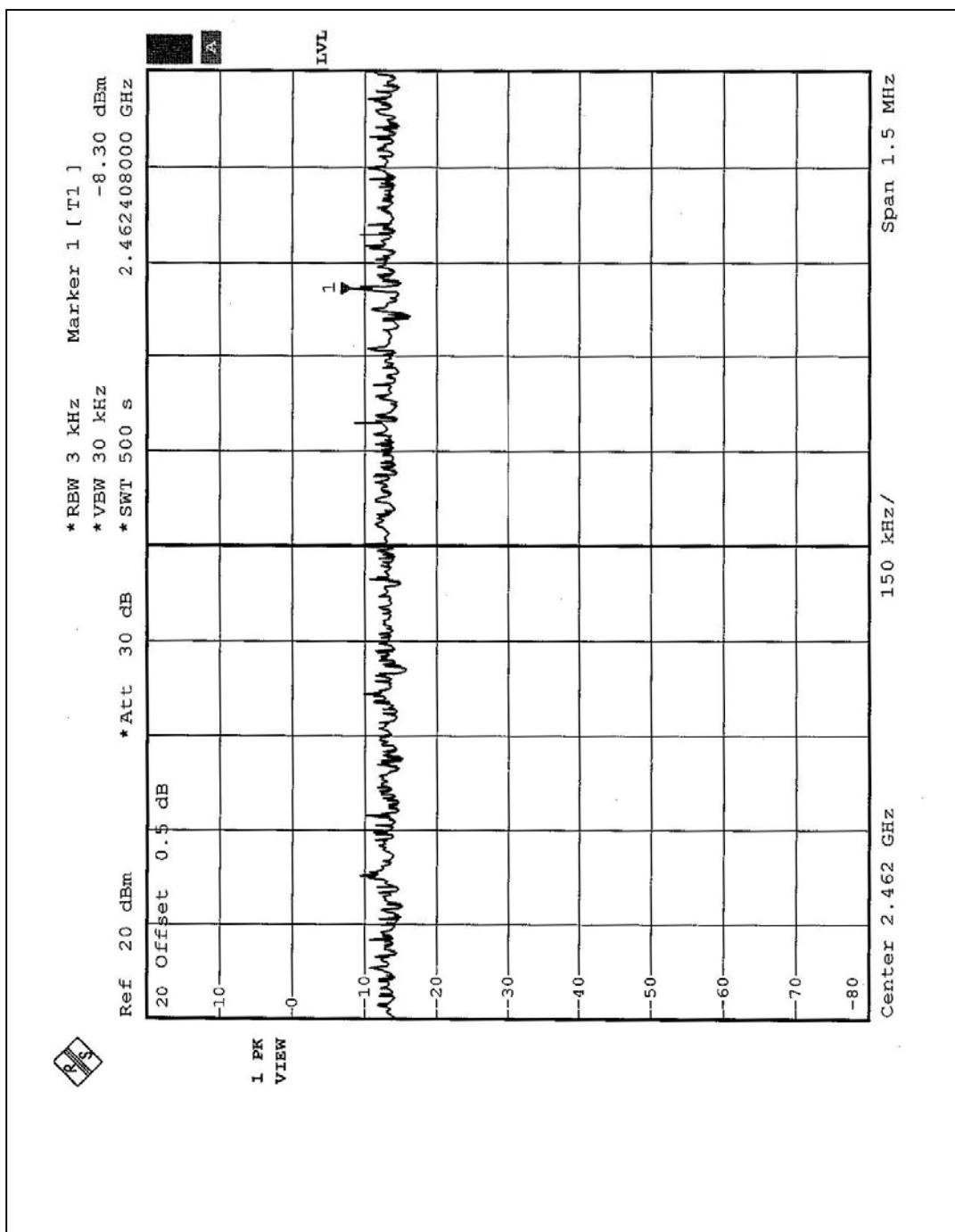
CH1



CH6



CH11

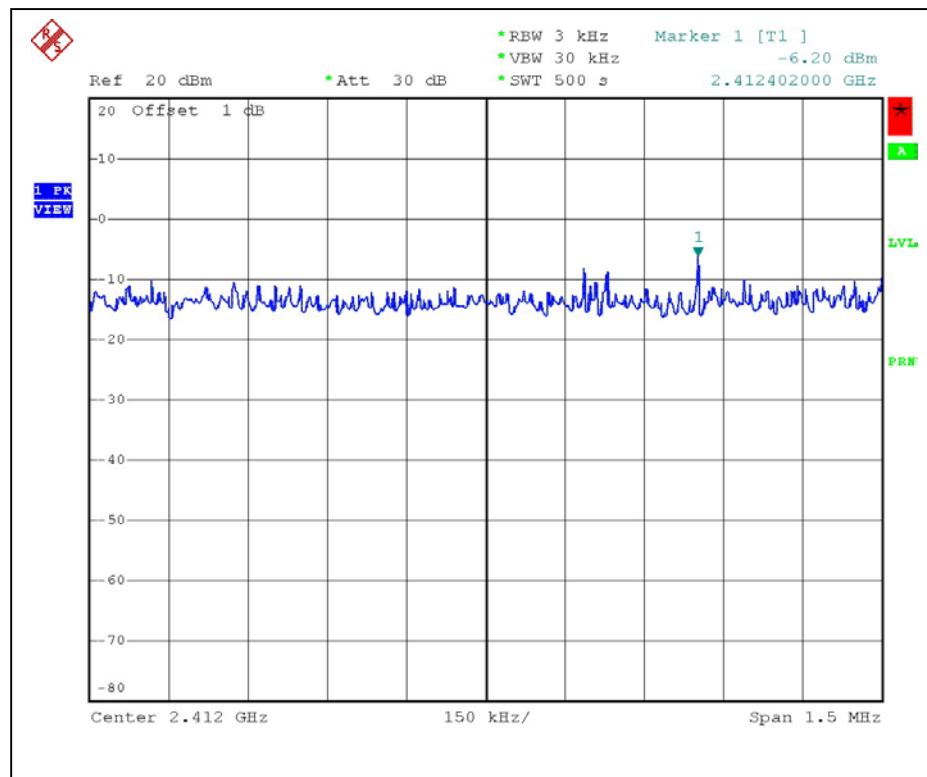


3.11.7 TEST RESULTS – DSSS(Mode 3)

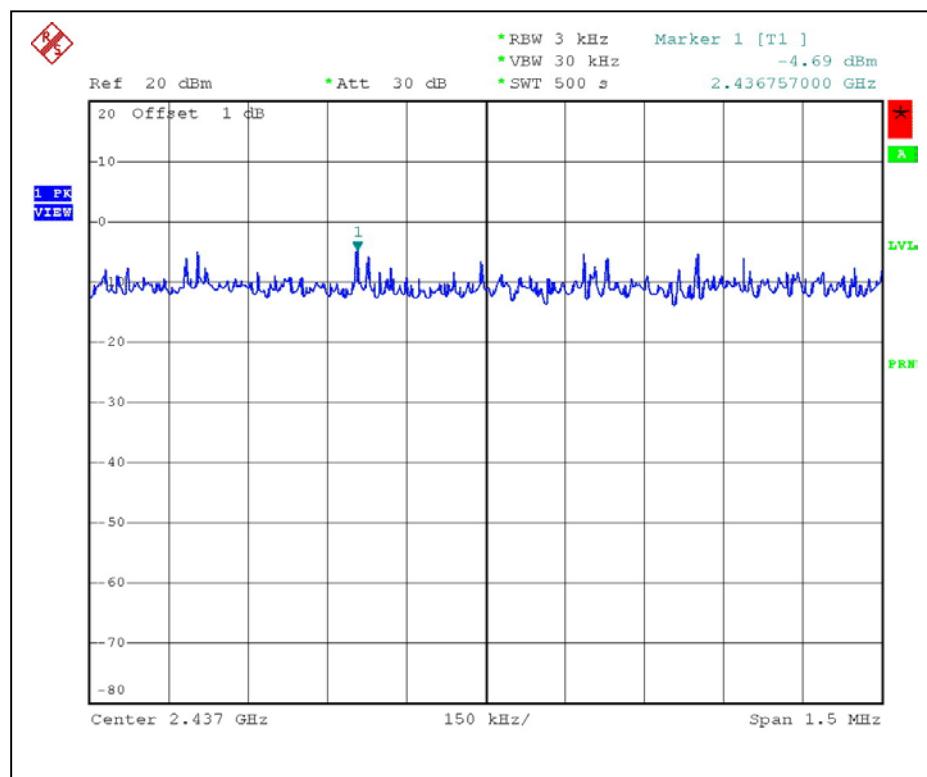
EUT	Upgrade Kit - 802.11g		
MODEL	WL-463	ENVIRONMENTAL CONDITIONS	24 deg. C, 62%RH, 977 hPa
INPUT POWER (SYSTEM)	120Vac, 60 Hz	TESTED BY	Rex Huang

CHANNEL NUMBER	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 KHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-6.20	8	PASS
6	2437	-4.69	8	PASS
11	2462	-6.46	8	PASS

CH1



CH6



CH11

