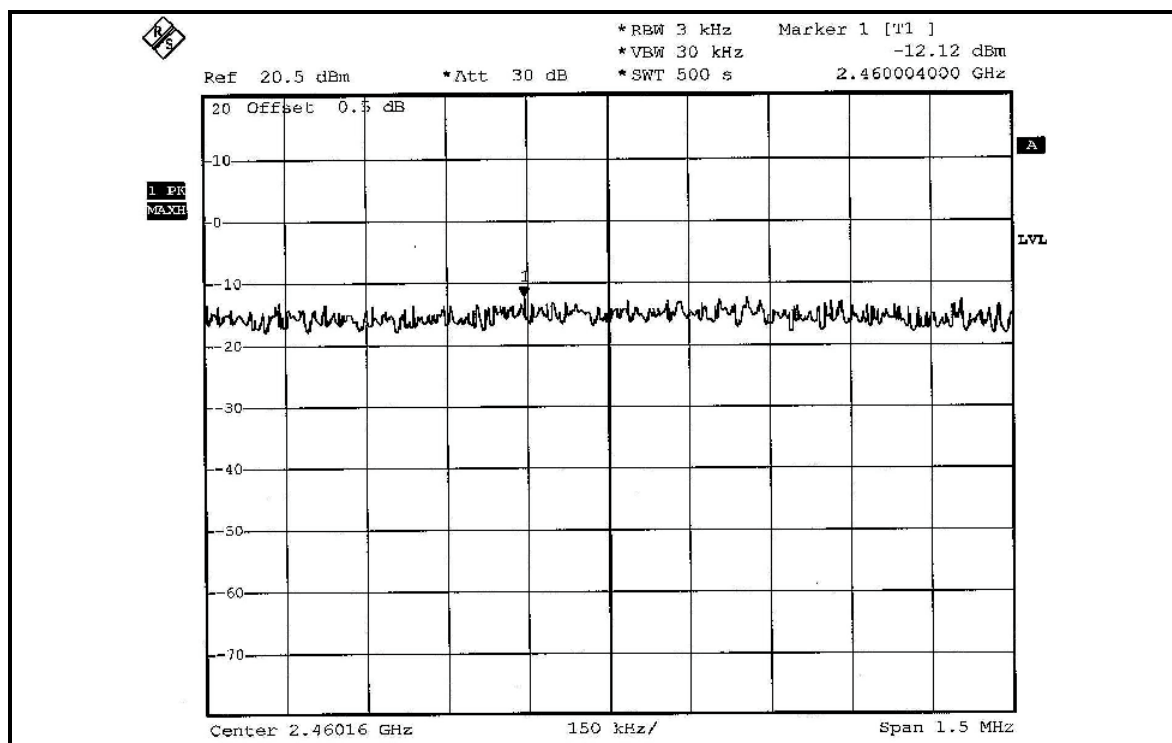


CH 11

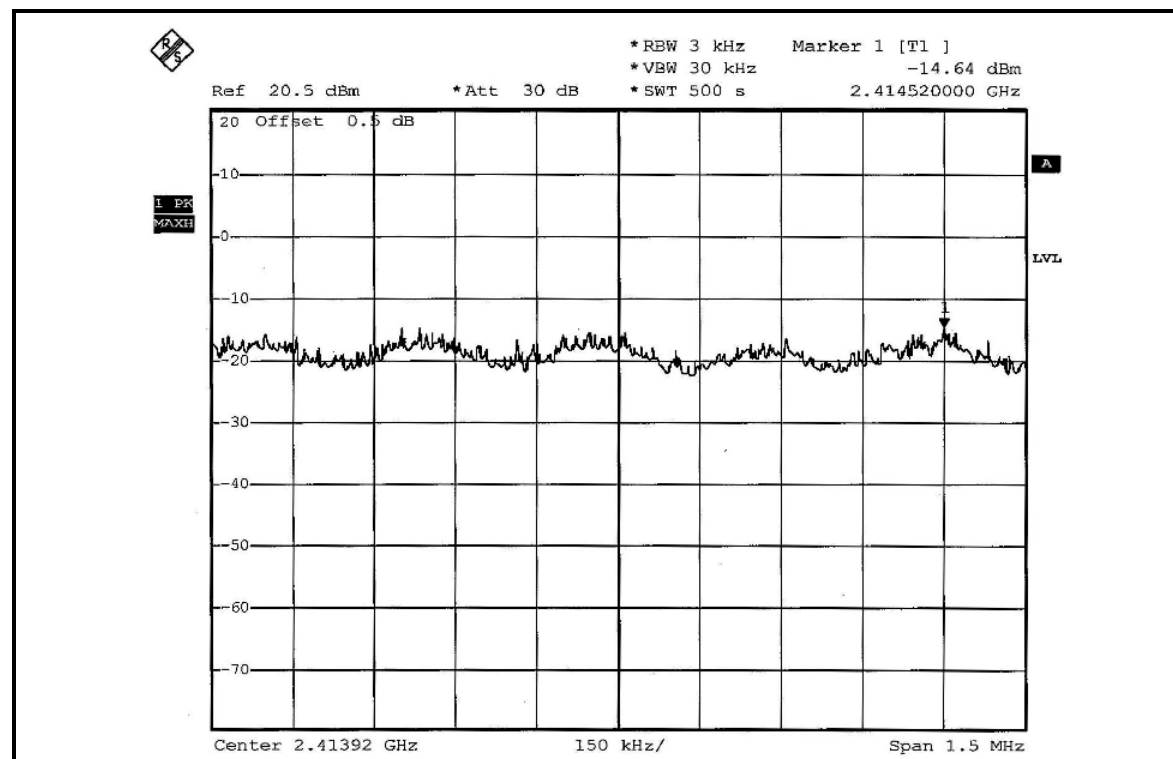


802.11g OFDM MODULATION – DUAL TX:

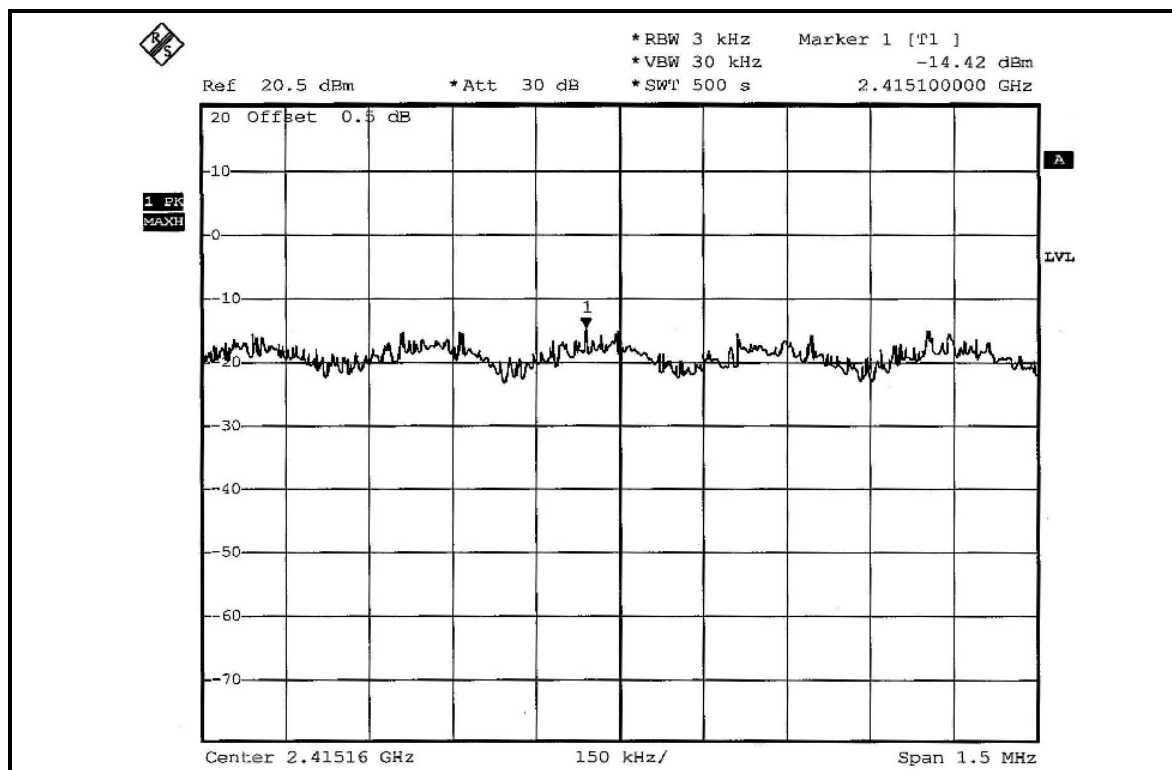
MODULATION TYPE	BPSK	TRANSFER RATE	6.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	27deg.C, 61% RH, 991hPa
TESTED BY	Match Tsui		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (mW)		RF POWER LEVEL IN 3kHz BW (dBm)		TOTAL POWER DENSITY (mW)	TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 0	CHAIN 1				
1	2412	0.034	0.036	-14.64	-14.42	0.070	-11.52	8	PASS
6	2437	0.060	0.063	-12.20	-12.00	0.123	-9.09	8	PASS
11	2462	0.021	0.022	-16.70	-16.56	0.043	-13.62	8	PASS

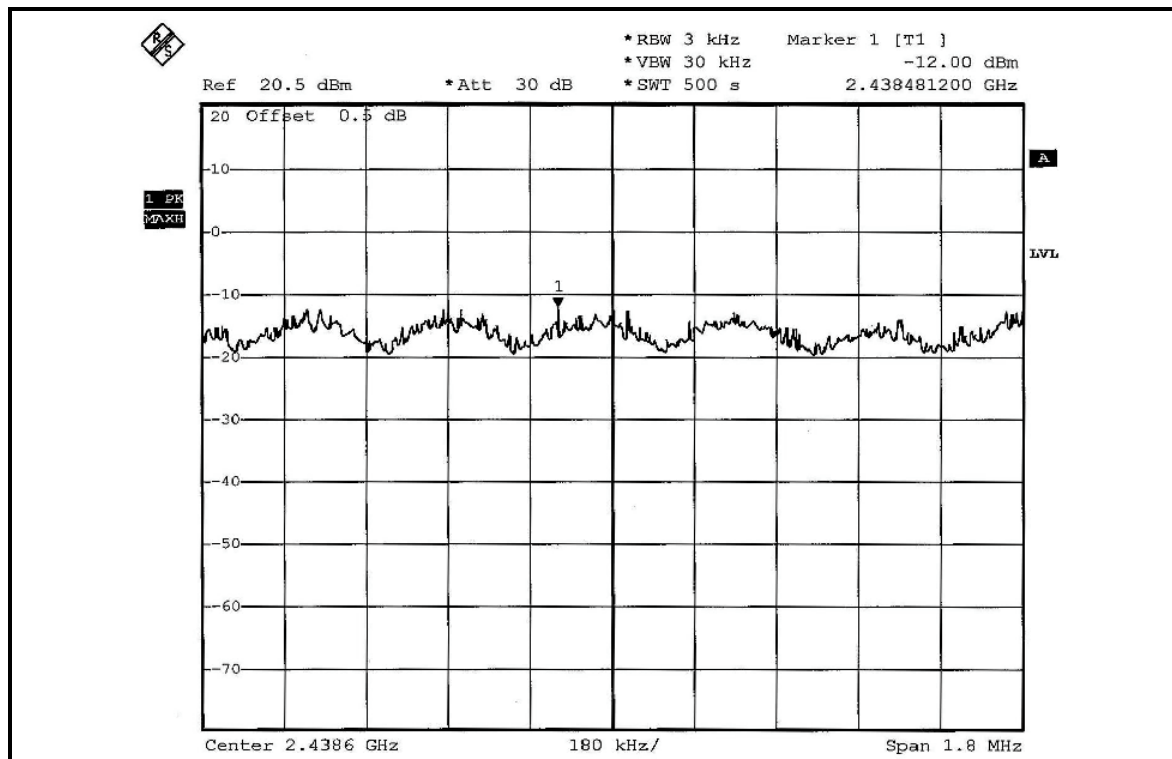
FOR CHAIN 0: CH 1



FOR CHAIN 1: CH 1



CH 6

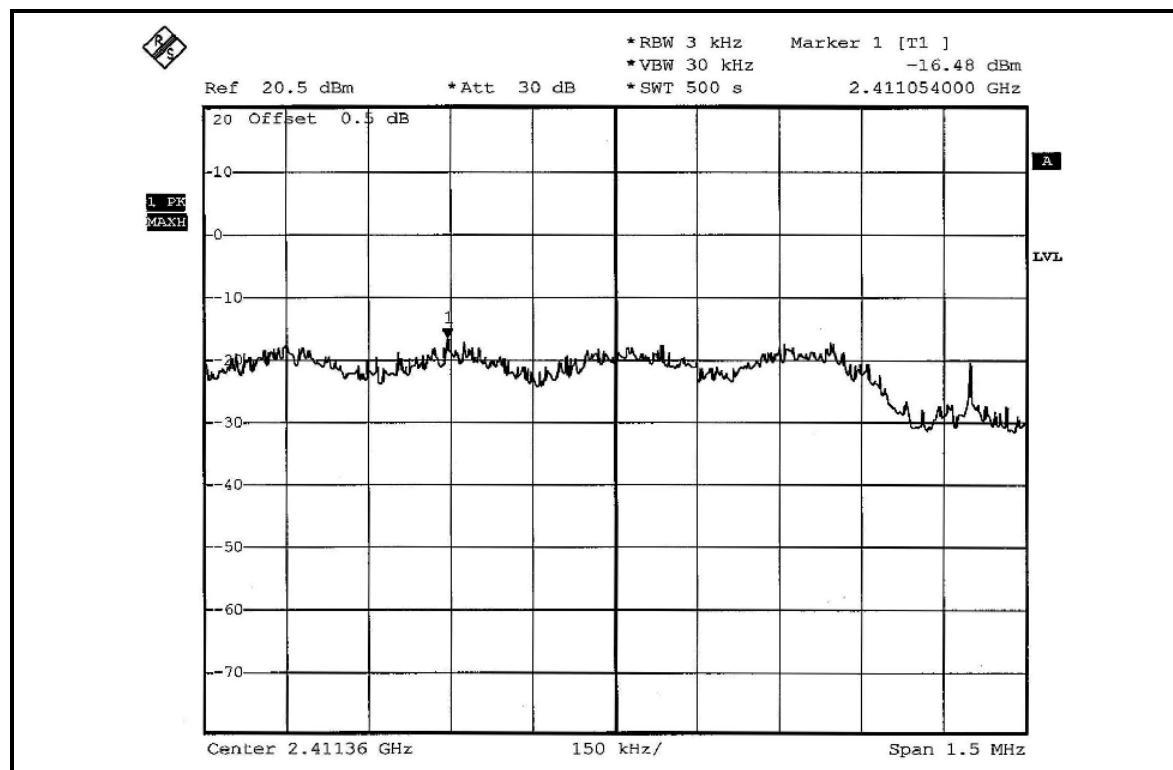


DRAFT 802.11n (20MHz) OFDM MODULATION – DUAL TX:

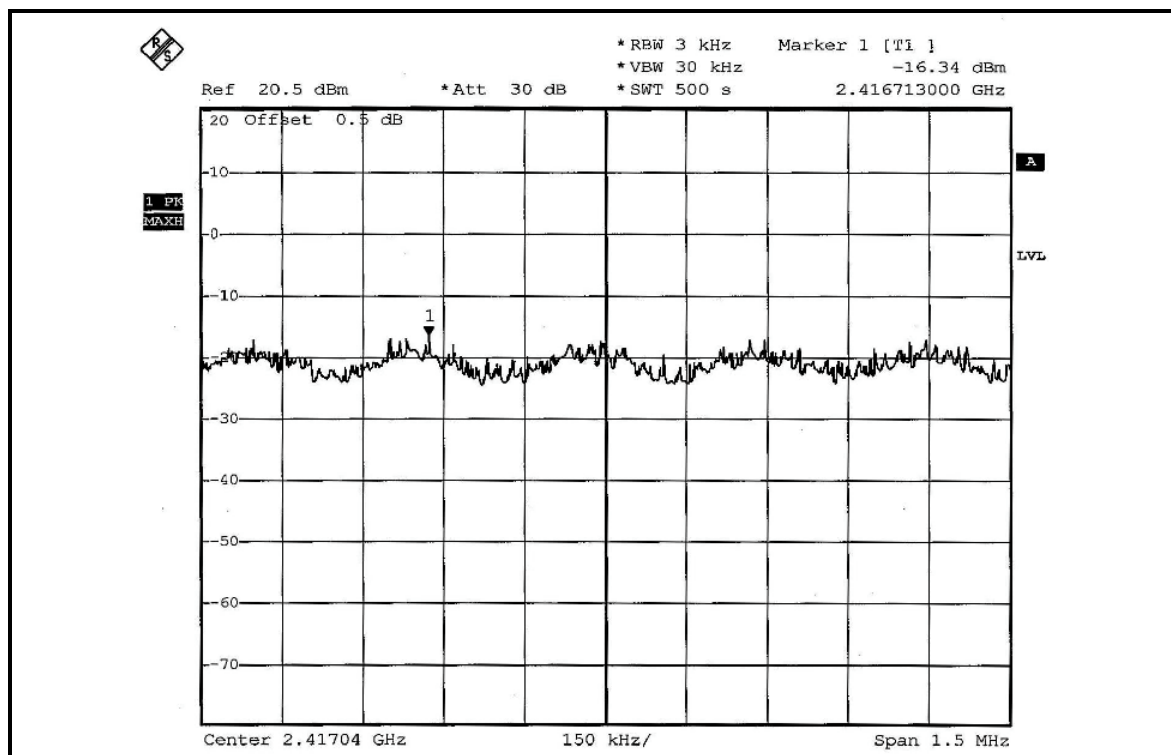
MODULATION TYPE	BPSK	TRANSFER RATE	7.2Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	27deg.C, 61% RH, 991hPa
TESTED BY	Match Tsui		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (mW)		RF POWER LEVEL IN 3kHz BW (dBm)		TOTAL POWER DENSITY (mW)	TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 0	CHAIN 1				
1	2412	0.022	0.023	-16.48	-16.34	0.046	-13.40	8	PASS
6	2437	0.049	0.051	-13.06	-12.91	0.101	-9.97	8	PASS
11	2462	0.016	0.016	-17.89	-17.86	0.033	-14.86	8	PASS

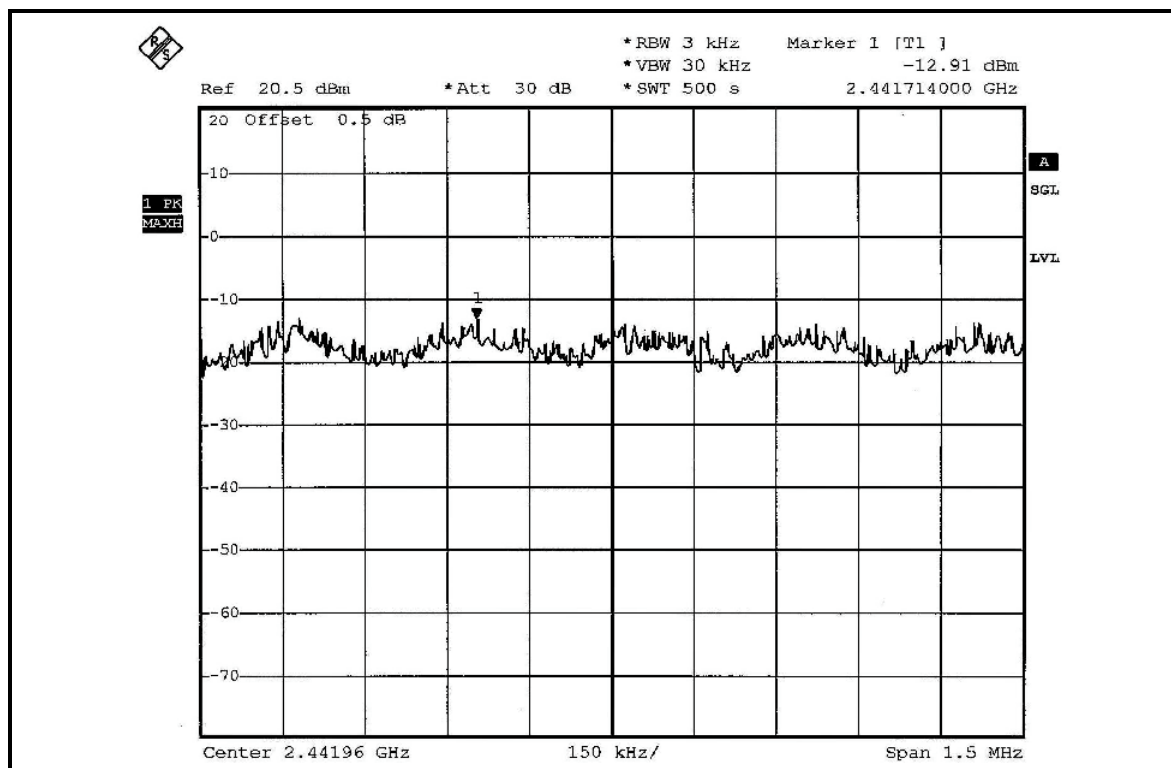
FOR CHAIN 0: CH 1



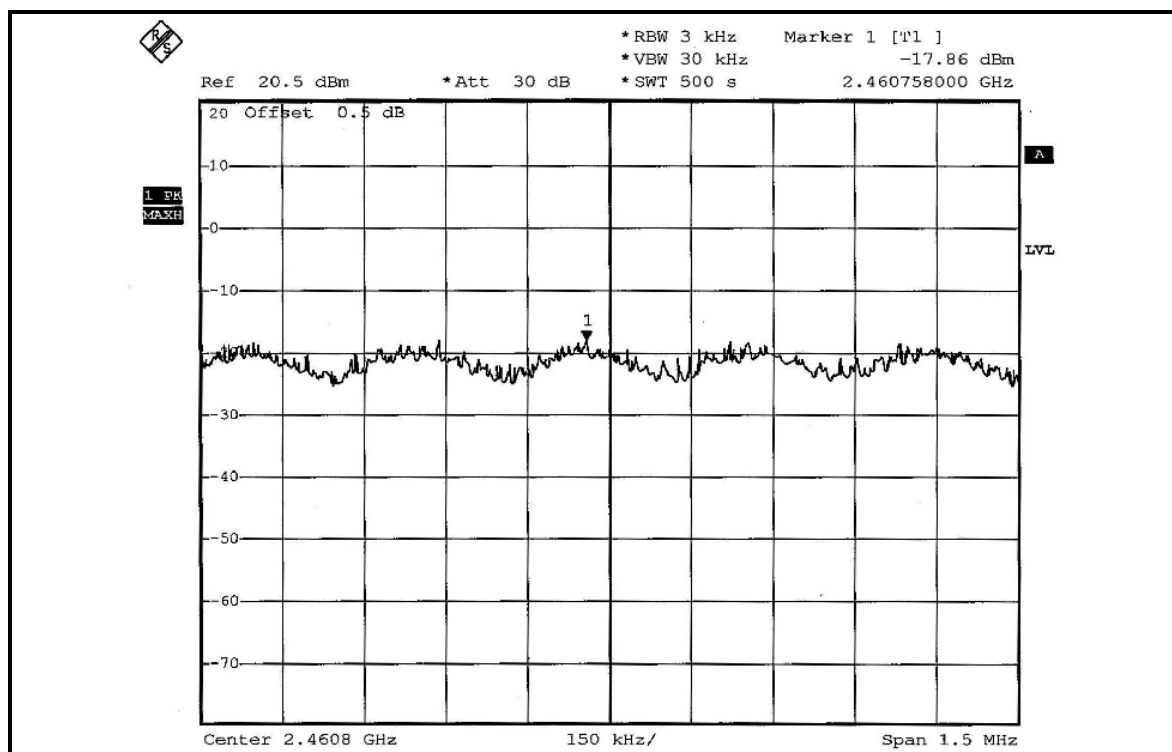
FOR CHAIN 1: CH 1



CH 6



CH 11

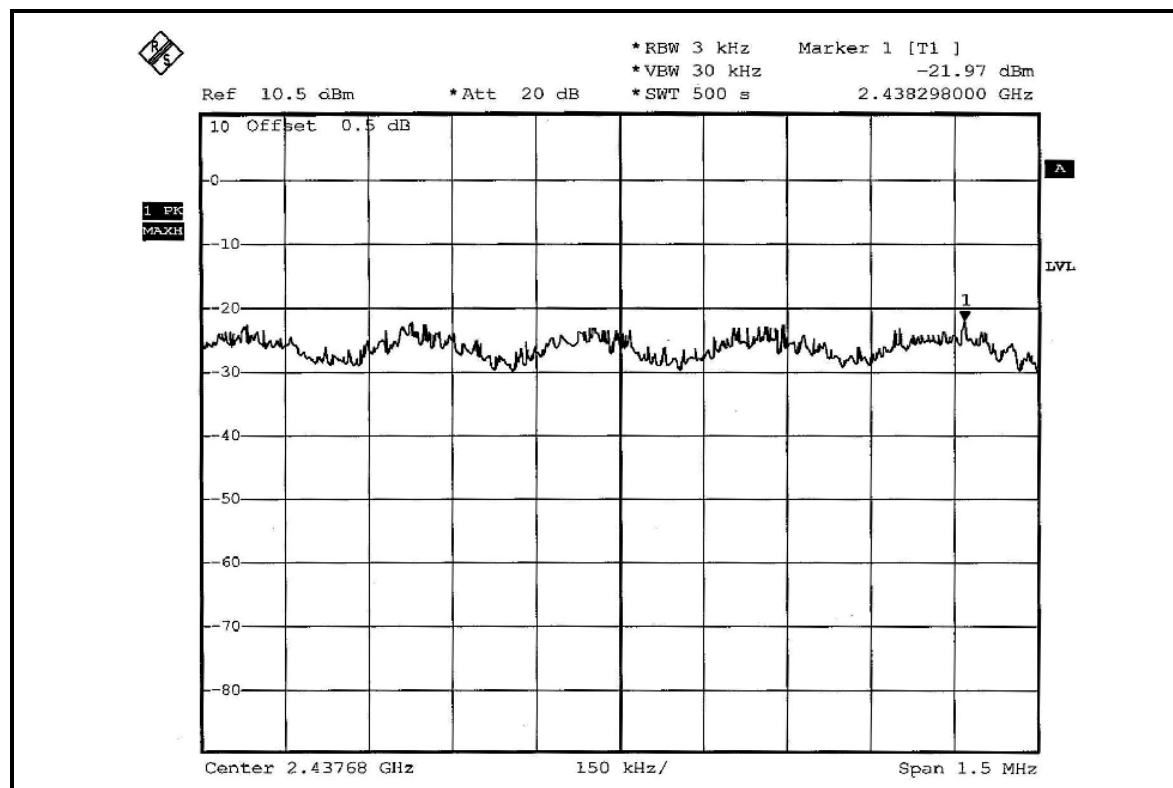


DRAFT 802.11n (40MHz) OFDM MODULATION – DUAL TX:

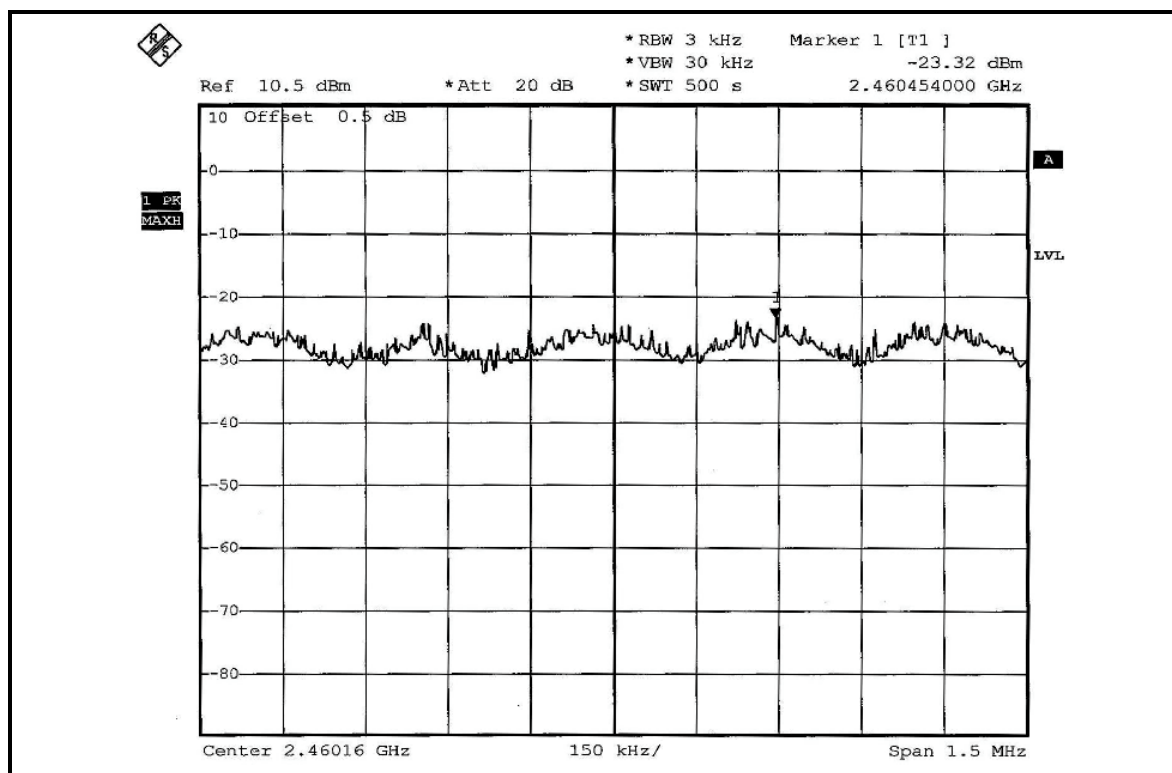
MODULATION TYPE	BPSK	TRANSFER RATE	15.0Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	27deg.C, 61% RH, 991hPa
TESTED BY	Match Tsui		

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3kHz BW (mW)		RF POWER LEVEL IN 3kHz BW (dBm)		TOTAL POWER DENSITY (mW)	TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 0	CHAIN 1				
1	2422	0.006	0.007	-21.97	-21.69	0.013	-18.82	8	PASS
4	2437	0.011	0.011	-19.64	-19.51	0.022	-16.56	8	PASS
7	2452	0.004	0.005	-23.59	-23.32	0.009	-20.44	8	PASS

FOR CHAIN 0: CH 1



CH 7



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. 14, 2006

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

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. 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.

The spectrum plots (Peak RBW = VBW = 100kHz; Average RBW = 1MHz, VBW = 10Hz)

NOTE: The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 10Hz for Average detection (AV) at frequency above 1GHz.

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 24 images. D1 line indicates the highest level, and D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(d).

802.11b DSSS MODULATION – DUAL TX:

NOTE 1:

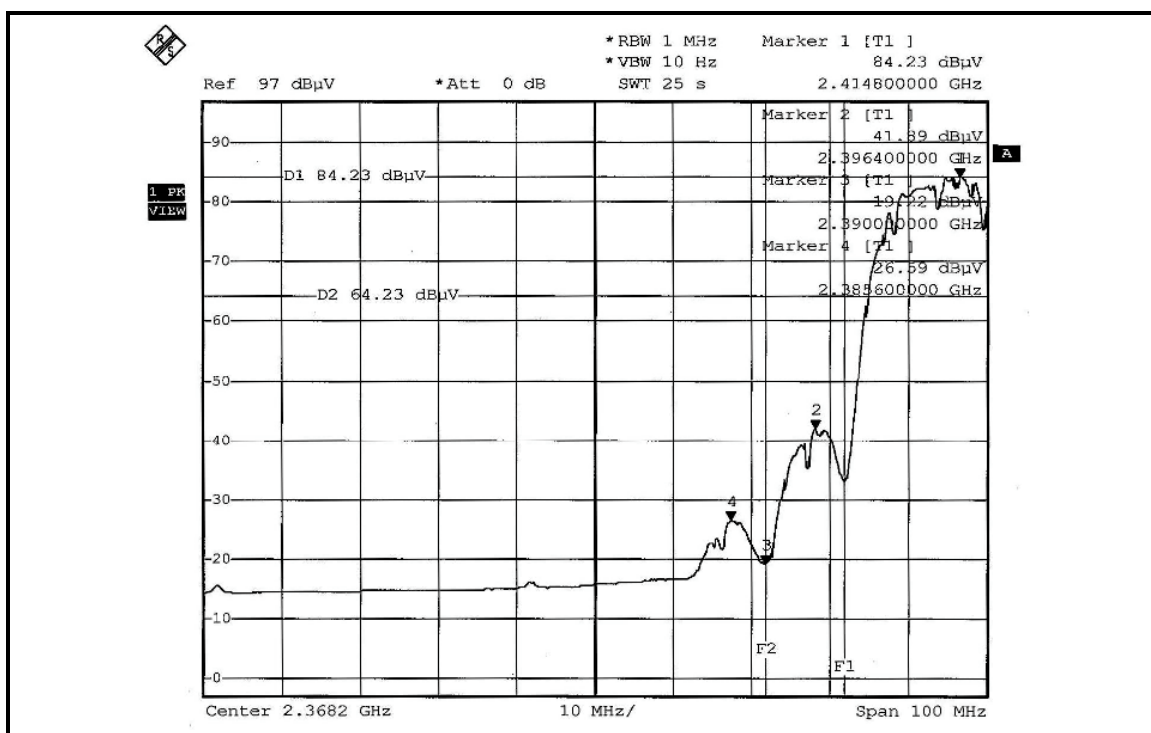
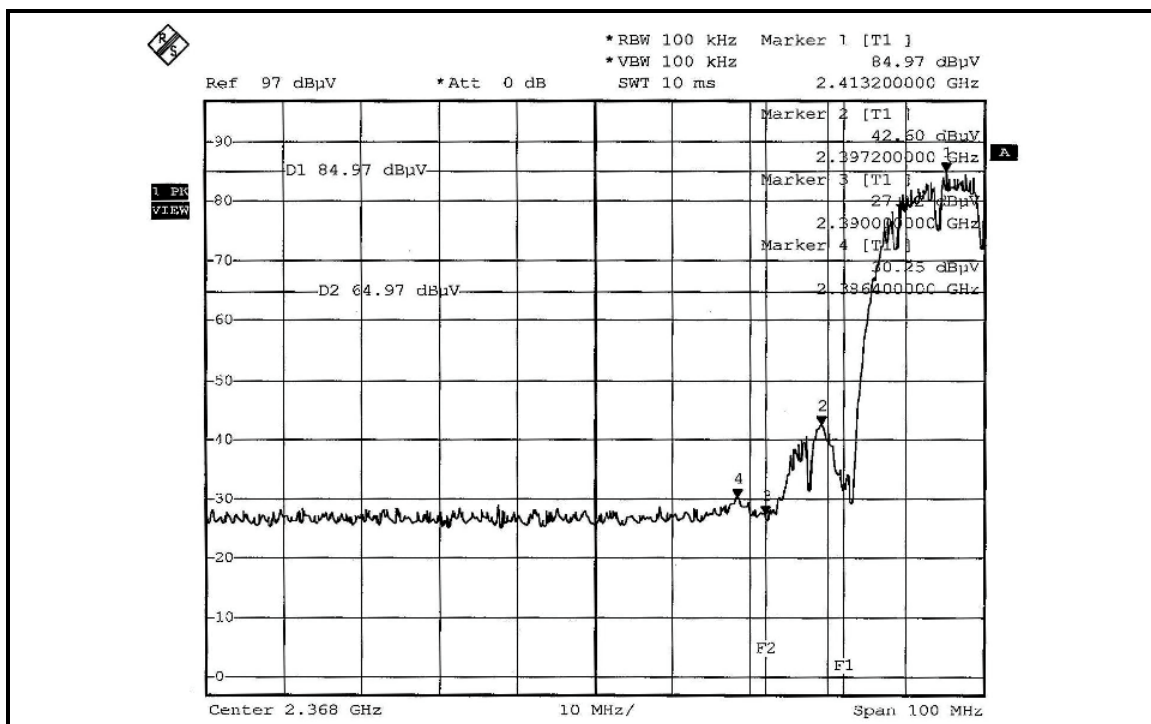
The band edge emission plot of DSSS technique on the next page shows 54.72dBc between carrier maximum power and local maximum emission in restrict band (2.38640GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 110.91dBuV/m (Peak), so the maximum field strength in restrict band is $110.91 - 54.72 = 56.19$ dBuV/m which is under 74dBuV/m limit.

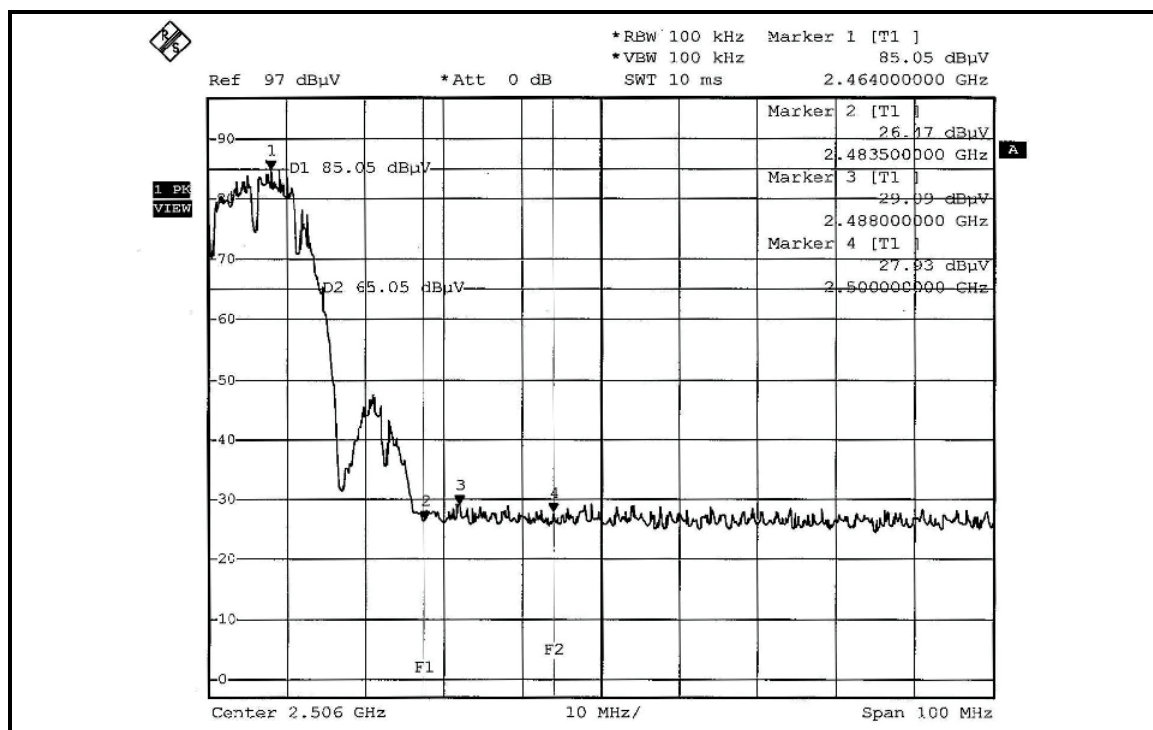
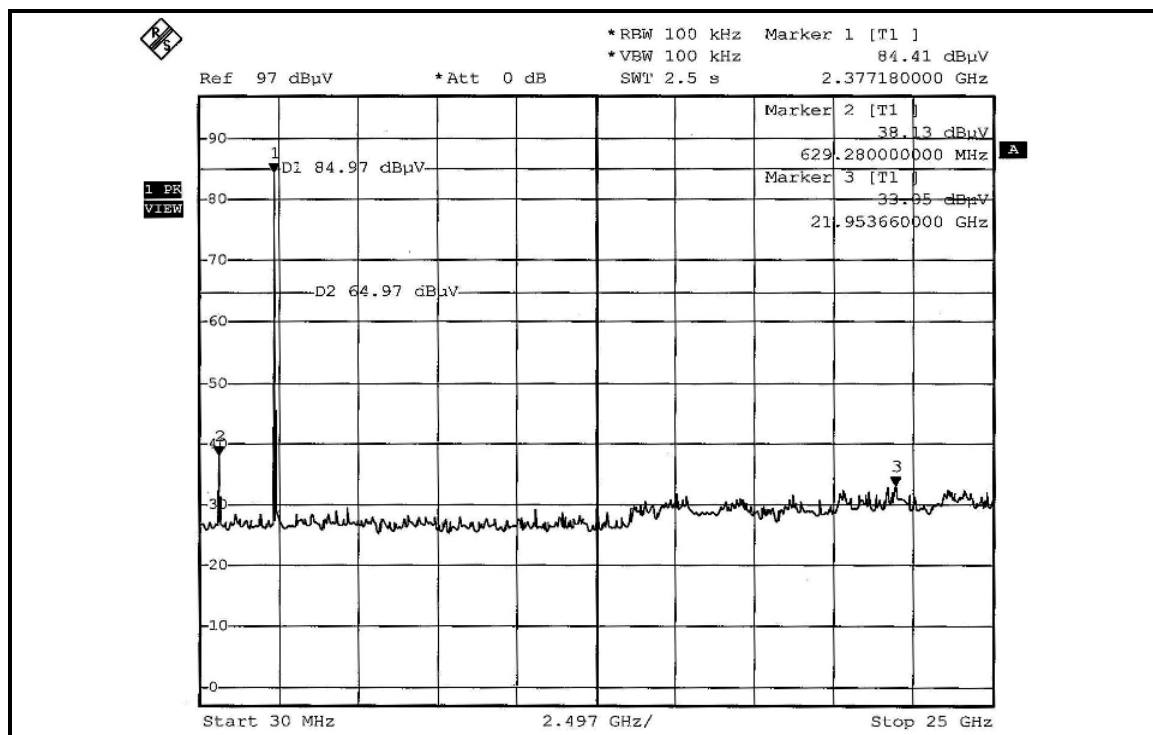
The band edge emission plot of DSSS technique on the next page shows 57.64dBc between carrier maximum power and local maximum emission in restrict band (2.38560GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is 106.81dBuV/m (Average), so the maximum field strength in restrict band is $106.81 - 57.64 = 49.17$ dBuV/m which is under 54dBuV/m limit.

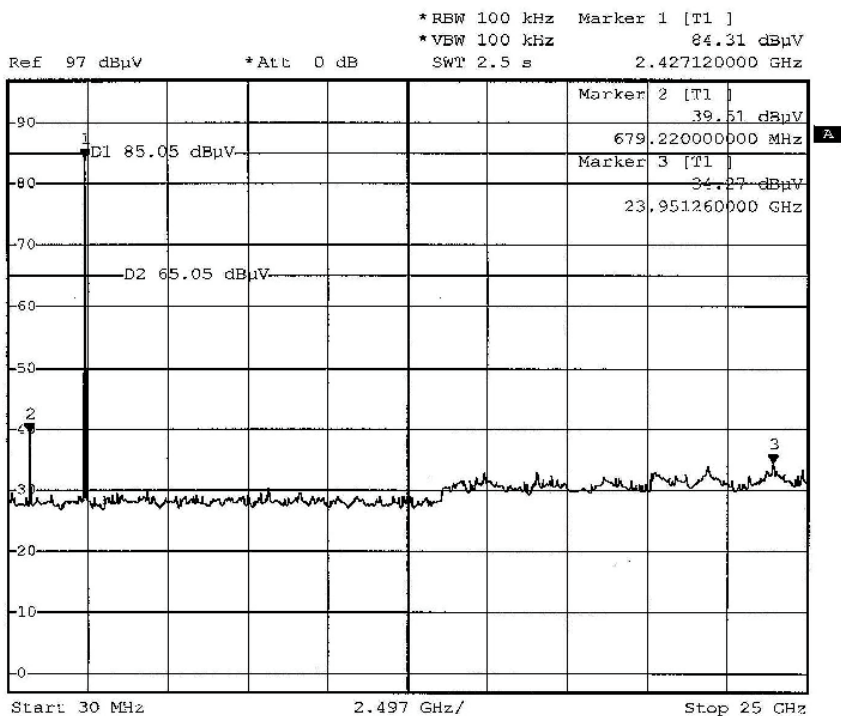
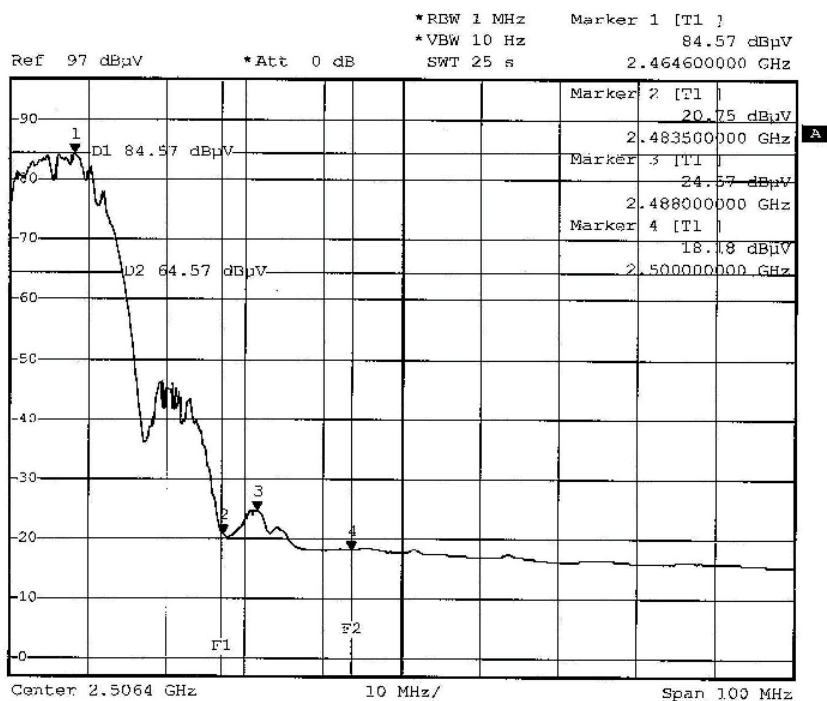
NOTE 2:

The band edge emission plot of DSSS technique on the next second page shows 55.96dBc between carrier maximum power and local maximum emission in restrict band (2.48800GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 110.15dBuV/m (Peak), so the maximum field strength in restrict band is $110.15 - 55.96 = 54.19$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot of DSSS technique on the next third page shows 60.00dBc between carrier maximum power and local maximum emission in restrict band (2.48800GHz). The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 106.13dBuV/m (Average), so the maximum field strength in restrict band is $106.13 - 60.00 = 46.13$ dBuV/m which is under 54dBuV/m limit.







802.11g OFDM MODULATION – DUAL TX:

NOTE 1:

The band edge emission plot of OFDM technique on the next page shows 42.48dBc between carrier maximum power and local maximum emission in restrict band (2.38900GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is

112.14dBuV/m (Peak), so the maximum field strength in restrict band is $112.14 - 42.48 = 69.66$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot of OFDM technique on the next page shows 48.28dBc between carrier maximum power and local maximum emission in restrict band (2.38960GHz). The emission of carrier strength list in the test result of channel 1 at the item 4.2.7 is

100.29dBuV/m (Average), so the maximum field strength in restrict band is $100.29 - 48.28 = 52.01$ dBuV/m which is under 54dBuV/m limit.

NOTE 2:

The band edge emission plot of OFDM technique on the next second page shows 41.33dBc between carrier maximum power and local maximum emission in restrict band (2.48390GHz).

The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 110.47dBuV/m (Peak), so the maximum field strength in restrict band is $110.47 - 41.33 = 69.14$ dBuV/m which is under 74dBuV/m limit.

The band edge emission plot of OFDM technique on the next third page shows 47.44dBc between carrier maximum power and local maximum emission in restrict band (2.48350GHz).

The emission of carrier strength list in the test result of channel 11 at the item 4.2.7 is 99.40dBuV/m (Average), so the maximum field strength in restrict band is $99.40 - 47.44 = 51.96$ dBuV/m which is under 54dBuV/m limit.