

9 ANTENNA CONDUCTED SPURIOUS EMISSIONS

Antenna spurious emission per FCC 15.247(c) was measured from the EUT antenna port using a 50 ohm spectrum analyzer with the resolution bandwidth set at 100 kHz, and the video bandwidth set at 300 kHz. The modulated carrier was identified at 2.413GHz for Channel 1, 2.443GHz for Channel 6 and 2.462GHz for Channel 11. No other harmonics or spurs were found within 20 dB of the carrier level, and from 9kHz to the carriers 10th harmonic. See antenna conducted spurious noise table.

FCC 97 114 appendix C specifies 100KHz/300KHz resolution and video bandwidth for the authorized band up to the 10th harmonic. All spurs and harmonic must be 20 dB down from the carrier within the authorized band. A 2.4 GHz notch filter was used to attenuate the carrier so that the spectrum analyzer would not be overloaded. The insertion loss of the notch filter was added to the spurious level on the table below.

TABLE 9: CHANNEL 1

Frequency (MHz)	Spurious level (dBm)	FCC Margin (dB)
18.990	-45.0	-30.0
602.300	-28.0	-13.0
801.760	-33.0	-18.0
951.954	-46.0	-31.0
1808.600	-35.0	-20.0
2445.510	-49.0	-34.0
2548.070	-55.0	-40.0
2785.510	-51.0	-36.0
4824.060	-41.7	-26,7

TABLE 10: CHANNEL 6

Frequency (MHz)	Spurious level (dBm)	FCC Margin (dB)
8.000	-28.8	-14.8
10.990	-28.5	-14.5
27.440	-37.0	-23.0
82.300	-37.6	-23.6
631.320	-19.6	-5.6
841.735	-31.7	-17.7
946.950	-52.0	-38.0
2815.510	-54.0	-40.0
4884.030	-36.1	-22.1

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TABLE 11: CHANNEL 11

Frequency (MHz)	Spurious level (dBm)	FCC Margin (dB)
8.020	-41.0	-24.4
144.500	-48.0	-31.4
650.800	-28.5	-11.9
850.100	-38.7	-22.1
1880.000	-42.7	-26.1
2407.489	-57.0	-40.4
2440.940	-50.0	-33.4
2835.000	-59.0	-42.4
4922.000	-43.0	-26.4
4927.000	-57.0	-40.4

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