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## 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 2.413 GHz for Channel $1,2.443 \mathrm{GHz}$ for Channel 6 and 2.462 GHz for Channel 11. No other harmonics or spurs were found within 20 dB of the carrier level, and from 9 kHz to the carriers $10^{\text {th }}$ harmonic. See antenna conducted spurious noise table.
FCC 97114 appendix C specifies $100 \mathrm{KHz} / 300 \mathrm{KHz}$ resolution and video bandwidth for the authorized band up to the $10^{\text {th }}$ 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 |

