

FCC ID: Q7V-3F090012X

RF Exposure Statement for Wi.232_USB in DTS-mode:

Notice in Installation Manual:

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 0.27cm (0.106 inches) between the radiator and your body.

RF Exposure Calculations:

The following information provides the minimum separation distances for the two major antenna types used in this system.

Omnidirectional Antenna:

The 2.2 dBi omni antenna is the maximum gain antenna certified for use with the product. The DTS-mode of operation is the highest output power. The minimum separation distance is calculated from **FCC OET 65 Appendix B, Table 1B** Guidelines for General Population/Uncontrolled Exposure. This calculation is based on the highest EIRP possible from the system, considering maximum power and antenna gain, and considering a 1.0 mW/cm² uncontrolled exposure limit. The formula used was:

$$S = (P_o * G) / (4 * \pi * r^2) \text{ or } r = \text{SQRT} [(P_o * G) / (4 * \pi * S)]$$

Where S = 1.0 mW/cm² for 2400 MHz

Where P_o = 16.3 mW (Peak RF, 12.11dBm)

Where G = 1.7 (numeric equivalent to 2.2 dBi antenna gain with 0dB cable loss)

Where r = Minimum Safe Distance from antenna (cm)

For Q7V-3F090012X, r = 1.48cm (0.585 inches)

For a distance [r] of 20cm from this antenna, the field density S = 0.0055 mW/cm²

Notes:

1. The minimum safe distance is based on a conservative “worse case” prediction, i.e. using the formula shown above and no duty factor. In practice the minimum distance will be much shorter. (Ref. 2)
2. The minimum safe distance has been calculated for the maximum allowed Power Density (S) limit of 1.0 mW/cm² in the frequency range 1500-100,000 MHz for uncontrolled environments (Ref. 2).

References:

1. FCC Part 15, sub-clause 15.247 (b) (4) (i)
 2. FCC OET Bulletin 65, Edition 97-01
- FCC Supplement C to OET Bulletin 65, edition 01-01