

APPENDIX A: FCC PART 1.1307, 1.1310, 2.1091, 2.1093 RF EXPOSURE COMPLIANCE

From FCC 1.1310 Table 1B, the maximum permissible RF exposure for an uncontrolled environment is 1 mW/cm². The actual power density for the EUT with the antenna option is calculated as shown below.

$$S = (P \times G) / (4 \times \pi \times d^2)$$

where:

S = power density

P = transmitter conducted power in (W)

G = antenna numeric gain

d = distance to radiation center (m)

TX Port	Antenna Type	Antenna Model	Gain (dBi)	Numeric Gain	Power (W)	Separation Distance (m)	Power Density (W/m ²)	Power Density (mW/cm ²)
802.11b	Whip	Omni	5.0	3.2	0.275	0.2	1.7	0.17
802.11g	Whip	Omni	5.0	3.2	0.078	0.2	0.49	0.05
Total:							2.2	0.22

The total shown above represents worst case RF exposure with both transmitters transmitting simultaneously. As shown above, the power density at 20 cm is well below the allowed limits at this frequency.

WARNING:

When using the outdoor antennas in the United States (or where FCC rules apply), only the antennas specified above may be used. The use of any other antenna is expressly forbidden in accordance with FCC rules CFR 47 part 15.204.

Proposed RF exposure safety information to include in User's Manual:

CAUTION: Antenna Installation Requirement

The antenna used with this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.