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

From FCC 1.1310 Table 1A, the maximum permissible RF exposure for an uncontrolled environment is 1 mW/cm^2. The Electric field generated for a 1 mW/cm^2 exposure (S) is calculated as follows:

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

where:
S = Power density
P = Transmitter conducted power in watts
G = Numeric gain
d = distance to radiation center

Fundamental Operating Frequency: 2463 MHz
Maximum Rated Output Power: 1.0 Watts (1000 mW)
Measured Maximum Output Power: 1.0 Watts (1000 mW)
Antenna Gain = 6dBi; Numeric Gain = 3.98

S = (1000 X 3.98)/ (4 x Pi X 20^2) = 0.8 mW/cm^2

Under normal operating conditions, the antenna is designed to maintain a separation distance of 20 cm from all persons. The EUT is mobile and fixed.

Calculated Power Density:

Antenna Gain = 6dBi Conducted Power (milli-Watt) = 1000	
Separation Distance = 20 cm	
FCC Power density Limit	Calculated Power density at 20 cm distance
1 mW/cm^2	0.8 wW/cm^2