§15.247 (i) and §1.1307 (b) (1) - MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Standard Applicable

According to subpart 15.247 (i) and subpart 1.1307 (b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures the public is not exposed to RF energy level in excess of the communication guidelines.

Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm^2)	Averaging Time (minute)
Limits for General Population/Uncontrolled Exposure				
0.3–3.0	614	1.63	*(100)	30
3.0–30	824/f	2.19/f	*(180/f^2)	30
30–300	27.5	0.073	0.2	30
300–1500			f/1500	30
1500–100,000			1.0	30

f = frequency in MHz
* = Plane-wave equivalent power density

Result

S = PG/4πRD²

S = power density (in appropriate units, e.g. mW/cm2)
P = power input to the antenna (in appropriate units, e.g., mW).
G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally *numeric* gain.
D = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

802.11b mode:

Maximum peak output power at antenna input terminal: 17.53(dBm)
Maximum peak output power at antenna input terminal: 56.6 (mW)
Prediction distance: >20 (cm)
Predication frequency: 2462 (MHz)
Antenna Gain (typical): 0(dBi)
Antenna Gain (typical): 1 (numeric)
The worst case is power density at predication frequency at 20 cm: 0.011(mW/cm^2)
MPE limit for general population exposure at prediction frequency: 1 (mW/cm^2)

802.11g mode:

Maximum peak output power at antenna input terminal: 14.08(dBm)
Maximum peak output power at antenna input terminal: 25.59 (mW)
Prediction distance: >20 (cm)
Predication frequency: 2462(MHz)
Antenna Gain (typical): 0(dBi)
Antenna Gain (typical): 1 (numeric)
The worst case is power density at predication frequency at 20 cm: 0.0051 (mW/cm^2)
MPE limit for general population exposure at prediction frequency: 1 (mW/cm^2)

The EUT complies with 20 cm distance.