

8. RADIO FREQUENCY EXPOSURE

8.1. Limit

According to §1.1310 and §2.1091 RF exposure is calculated.

Table: Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Power Density (S) (mW/cm²)
0.3–1.34	*(100)
1.34–30	*(180/f ²)
30–300	0.2
300–1500	f/1500
1500–100,000	1.0

F = frequency in MHz

* = Plane-wave equivalent power density

Maximum Permissible Exposure

$$S = PG/4\pi R^2$$

S = Power density

P = power input to antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna.

Note:

1. Manufacturer declared that the maximum antenna gain is 2.0dBi for TX.
2. Only record worst case data.

802.11b

Conducted Peak output Power in dBm	14.50	dBm
Max. Conducted Peak output Power in mW	28.20.	mW
MPE limit for uncontrolled exposure at prediction frequency	1	mW/cm ²
Prediction frequency	2012	MHz
Antenna Gain(typical)	3.0	dBi
Antenna Gain(numeric)	2.0	
Prediction distance	2.12	cm

8.2 Test Results

The power density level worst case at 2.12 cm is below the uncontrolled exposure limit.