

RF Exposure Statement

1. LIMITS

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

(B) Limits for General Population/Uncontrolled Exposures

Frequency range (MHz)	Electric field Strength (V/m)	Magnetic field Strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
0.3 - 1.34.....	614	1.63	*(100)	30
1.34 - 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

2. MAXIMUM PERMISSIBLE EXPOSURE Prediction

Prediction of MPE limit at a given distance

Equation from page 18 of OET Bulletin 65, Edition 97-01

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

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

2-1. 802.11b BAND

Max Peak output Power at antenna input terminal (dBm)	21.89
Max Peak output Power at antenna input terminal (mW)	154.5
Prediction distance (cm)	20.00000
Prediction frequency (MHz)	2462.00000
Antenna Gain(typical) (dBi)	2.85000
Antenna Gain(numeric)	1.92752
Power density at prediction frequency (mW/cm ²)	0.059
MPE limit for uncontrolled exposure at prediction frequency (mW/cm ²)	1.00000

2-2. 802.11g BAND

Max Peak output Power at antenna input terminal (dBm)	21.31
Max Peak output Power at antenna input terminal (mW)	135.2
Prediction distance (cm)	20.00000
Prediction frequency (MHz)	2462.00000
Antenna Gain(typical) (dBi)	2.85000
Antenna Gain(numeric)	1.92752
Power density at prediction frequency (mW/cm ²)	0.051848
MPE limit for uncontrolled exposure at prediction frequency (mW/cm ²)	1.00000

2-3. 802.11n (20MHz) BAND

Max Peak output Power at antenna input terminal (dBm)	20.92
Max Peak output Power at antenna input terminal (mW)	123.6
Prediction distance (cm)	20.00000
Prediction frequency (MHz)	2437.00000
Antenna Gain(typical) (dBi)	2.85000
Antenna Gain(numeric)	1.92752
Power density at prediction frequency (mW/cm ²)	0.047395
MPE limit for uncontrolled exposure at prediction frequency (mW/cm ²)	1.00000

2-4. 802.11n (40MHz) BAND

Max Peak output Power at antenna input terminal (dBm)	21.43
Max Peak output Power at antenna input terminal (mW)	139.0
Prediction distance (cm)	20.00000
Prediction frequency (MHz)	2452.00000
Antenna Gain(typical) (dBi)	2.85000
Antenna Gain(numeric)	1.92752
Power density at prediction frequency (mW/cm ²)	0.053300
MPE limit for uncontrolled exposure at prediction frequency (mW/cm ²)	1.00000

3. RESULTS

The power density level at 20 cm is 0.062622 mW/cm², which is below the uncontrolled exposure limit of 1.0 mW/cm² at 802.11b BAND

The power density level at 20 cm is 0.051848 mW/cm², which is below the uncontrolled exposure limit of 1.0 mW/cm² at 802.11g BAND

The power density level at 20 cm is 0.047395 mW/cm², which is below the uncontrolled exposure limit of 1.0 mW/cm² at 802.11n (20MHz) BAND.

The power density level at 20 cm is 0.053300 mW/cm², which is below the uncontrolled exposure limit of 1.0 mW/cm² at 802.11n (40MHz) BAND