
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

3. RESULTS

3-1. 2.4 GHz BAND

Max Peak output Power at antenna input terminal (dBm)	21.77
Max Peak output Power at antenna input terminal (mW)	150.314
Prediction distance (cm)	20.00000
Prediction frequency (MHz)	2437.00000
Antenna Gain(typical) (dBi)	7.50000
Antenna Gain(numeric)	5.62341
Power density at prediction frequency (mW/cm ²)	0.168163
MPE limit for uncontrolled exposure at prediction frequency (mW/cm ²)	1.00000

3-2. 5.8GHz BAND

Max Peak output Power at antenna input terminal (dBm)	19.61
Max Peak output Power at antenna input terminal (mW)	91.411
Prediction distance (cm)	20.00000
Prediction frequency (MHz)	5785.00000
Antenna Gain(typical) (dBi)	12.77000
Antenna Gain(numeric)	18.92344
Power density at prediction frequency (mW/cm ²)	0.344136
MPE limit for uncontrolled exposure at prediction frequency (mW/cm ²)	1.00000

- The power density level at 20 cm is **0.168163 mW/cm²(2.4GHz BAND)**,
- **0.344136 mW/cm² (5.8GHz BAND)** which is below the uncontrolled exposure
- limit of 1.0 mW/cm² at WEA303e

Simultaneous MPE at 20 cm is $(0.168163/1.0) + (0.344136/1.0) < 1$

*The Worst case Adapter 2.4GHz 3TX MiMO : 21.77dBi , 5.8 GHz 3Tx MiMO : 19.61dBi is
Highest Power