

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. Bluetooth

Max Peak output Power at antenna input terminal (dBm)	0.05
Max Peak output Power at antenna input terminal (mW)	1.01158
Prediction distance (cm)	20.00
Prediction frequency (MHz)	2441.00
Antenna Gain(typical) (dBi)	2.006
Antenna Gain(numeric)	1.58708
Power density at prediction frequency (mW/cm ²)	0.00032
MPE limit for uncontrolled exposure at prediction frequency (mW/cm ²)	1.00000

3. RESULTS

The power density level at 20 cm is 0.00032 mW/cm², which is below the uncontrolled exposure limit of 1.00000 mW/cm² at 2441 MHz for Bluetooth.