# Appendix IV MPE

## FCC ID: 2BEMR-P41

## Prediction of MPE at a given distance

### 1. Limits

The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)
KDB Test Methodology: KDB 447498 D01 v06.

| Frequency range (MHz) | Electric field strength (V/m) | Magnetic field strength (A/m) | Power density ($mW/cm^2$) | Averaging time (minutes) |
|---|---|---|---|---|
| (A) Limits for Occupational/Controlled Exposure | | | | |
| 0.3-3.0 | 614 | 1.63 | *100 | 6 |
| 3.0-30 | 1842/f | 4.89/f | $*900/f^2$ | 6 |
| 30-300 | 61.4 | 0.163 | 1.0 | 6 |
| 300-1,500 | | | f/300 | 6 |
| 1,500-100,000 | | | 5 | 6 |
| (B) Limits for General Population/Uncontrolled Exposure | | | | |
| 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 |
| 300-1,500 | | | f/1500 | 30 |
| 1,500-100,000 | | | 1.0 | 30 |

### 2. Test Procedure

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

$$S = \frac{P \times G}{4 \times \pi \times R^2}$$

Where:
S = power density
P = power input to the antenna
G = numeric gain of the antenna in the direction of interest relative to an isotropic radiator
R = distance to the centre of radiation of the antenna

## 3. Result

| Mode | Frequency (MHz) | Prediction distance (cm) | RF output power(Max) (dBm) | Tune-up power (Max) | | MPE ($mW/cm^2$) | Limit ($mW/cm^2$) | SAR Test Exclusion |
|---|---|---|---|---|---|---|---|---|
| | | | | dBm | mW | | | |
| BT EDR | 2402-2480 | 20 | 1.47 | 2 | 1.58 | 0.0002 | 1 | Yes |

BT Antenna: max gain -0.58dBi, 0.87(numeric)

Therefore this device complies with FCC's RF radiation exposure limits for general population without SAR evaluation.