

RF EXPOSURE

FCC ID: 2AAIN-MNSOLBLK

1. Applicable Standard

According to §15.247(i) and §1.1310, systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

Limits for Maximum Permissible Exposure (MPE) (§1.1310, §2.1091)

| (B) Limits for General Population/Uncontrolled Exposure | | | | |
|--|-------------------------------|-------------------------------|-------------------------------------|--------------------------|
| 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 |
| 300-1,500 | | | f/1500 | 30 |
| 1,500-100,000 | | | 1.0 | 30 |

f = frequency in MHz; * = Plane-wave equivalent power density;
According to §1.1310 and §2.1091 RF exposure is calculated.

Calculated Formulary:

Predication of MPE limit at a given distance

$S = PG/4\pi R^2$ = power density (in appropriate units, e.g. mW/cm²);

P = power input to the antenna (in appropriate units, e.g., mW);

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

factor, is normally numeric gain;

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);

2.Result:

| Mode | Frequency (MHz) | Antenna Gain | | Conducted Power | | Evaluation Distance(cm) | Power Density (mW/cm ²) | MPE Limit (mW/cm ²) |
|------|-----------------|--------------|-----------|-----------------|-------|-------------------------|-------------------------------------|---------------------------------|
| | | (dBi) | (numeric) | (dBm) | (mW) | | | |
| GFSK | 2480 | 4.0 | 2.512 | 1 | 1.259 | 20 | 0.00063 | 1 |

NOTE: Declare Maximum Power of the device: GFSK=0dBm, the power tolerance can't be more than +-1dBm, the maximum power value of the actual test is GFSK-2480MHz (0.188dBm)

Result: Compliance