

RF exposure exhibit

FCC RF Exposure Requirements

General information:

FCCID: RAMTX100

Modulation:

Device category: Mobile per Part 2.1091

Environment: General Population/Uncontrolled Exposure

Otherwise, compliance with the power density limits of 1.1310 is required.

Antenna:

The device has a portable antenna to be used for the purpose of reading tags

| Configuration | Antenna p/n | Type | Max. Gain (dBi) |
|---------------|-------------|------|-----------------|
| Indoor | None | - | 1 |

Operating configuration and exposure conditions:

The conducted output power is 0.331 W

MPE Calculation:

The minimum separation distance is calculated as follows:

$$E(V/m) = \frac{\sqrt{30 \times P \times G}}{d}$$

Power density: $P_d(mW/cm^2) = \frac{E^2}{3770}$

The limit for general population/uncontrolled exposure environment is 0.3mW/cm²* for a

Channel Frequency: 457.5750 MHz

(A)

| Separation Distance | | Antenna Gain (dBi) | |
|---------------------|----------------|--------------------|------|
| | | 1 | |
| Power Conducted (W) | Duty Cycle (%) | (in) | (cm) |
| 0.331 | 100 | | 10.5 |
| - | - | - | - |

(B)

| Power Density at 20 cm distance | | | Max. Antenna Gain (dBi) | | |
|---------------------------------|--------------------|----------------|-------------------------|-----------------------|-----------------------|
| | | | 1 | - | - |
| Freq (MHz) | Power Coducted (W) | Duty Cycle (%) | (mW/cm ²) | (mW/cm ²) | (mW/cm ²) |
| 457.5750 | 0.331 | 100 | 0.08 | - | - |
| | | | | - | - |

Conclusion:

The device complies with the MPE requirements by providing a safe separation distance of 20 cm between the antenna, including any radiating structure, and any persons when normally operated .

*

| (A) Limits for Occupational/Controlled Exposure | | | | |
|--|-----------------------------------|-----------------------------------|---|---|
| Frequency Range (MHz) | Electric Field Strength (E) (V/m) | Magnetic Field Strength (H) (A/m) | Power Density (S) (mW/cm ²) | Averaging Time E ² , H ² or S (minutes) |
| 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 |
| 300-1500 | -- | -- | f/300 | 6 |
| 1500-100,000 | -- | -- | 5 | 6 |

| (B) Limits for General Population/Uncontrolled Exposure | | | | |
|--|-----------------------------------|-----------------------------------|---|---|
| Frequency Range (MHz) | Electric Field Strength (E) (V/m) | Magnetic Field Strength (H) (A/m) | Power Density (S) (mW/cm ²) | Averaging Time E ² , H ² or S (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