

Safe distances for General Public Use

$$R = \sqrt{\frac{PG}{4\pi(f/150\text{W/m}^2)}}$$

Due to numerous different applications, it is reasonable that users are not always aware of parameters of all components in a SATEL-TA11 radio modem system. However, obeying the safe distances in the table below, every user can easily fulfil the Canadian authority limit (depends on the frequency in use) for human exposure to radio frequency radiation in general public use.

| Radio Modem Model | Minimum safe distance to the antenna For General Public use |
|-------------------|--|
| SATEL-TA11 | 87 cm |

Safe distances for Controlled Use

Calculated by formula below:

$$R = \sqrt{\frac{PG}{4\pi(f/30\text{W/m}^2)}}$$

Minimum distance however being always at least 20 cm.

Advanced users and system designers who are fully aware of key parameters of SATEL-TA11 radio modem system are allowed to follow the safe distances for controlled use listed in the table below.

| Tx output power [W] | Antenna system gain [dBi / numeric] | Tx duty cycle [%], 6 min. average | Frequency [MHz] | Minimum safe distance [cm] |
|---------------------|-------------------------------------|-----------------------------------|-----------------|----------------------------|
| 1.0 | 14 / 25.12 | 100 | 403/470 | 38.6/35.7 |
| | | 50 | 403/470 | 27.3/25.3 |
| | | 20 | 403/470 | 20 |
| | | 10 | 403/470 | 20 |
| | 8 / 6.310 | 100 | 403/470 | 20 |
| | | 50 | 403/470 | 20 |
| | | 20 | 403/470 | 20 |
| | | 10 | 403/470 | 20 |
| | 6 / 3.981 | 100 | 403/470 | 20 |
| | | 50 | 403/470 | 20 |
| | | 20 | 403/470 | 20 |
| | | 10 | 403/470 | 20 |
| | 2 / 1.585 | 100 | 403/470 | 20 |
| | | 50 | 403/470 | 20 |
| | | 20 | 403/470 | 20 |
| | | 10 | 403/470 | 20 |
| | 0 / 1.000 | 100 | 403/470 | 20 |
| | | 50 | 403/470 | 20 |
| | | 20 | 403/470 | 20 |
| | | 10 | 403/470 | 20 |
| 0.5 | 6 / 3.981 | 100 | 403/470 | 20 |
| | | 50 | 403/470 | 20 |
| | | 20 | 403/470 | 20 |

| | | | | | |
|-----------|-----------|-----|---------|----|--|
| | | 10 | 403/470 | 20 | |
| 0 / 1.000 | 6 / 3.981 | 100 | 403/470 | 20 | |
| | | 50 | 403/470 | 20 | |
| | | 20 | 403/470 | 20 | |
| | | 10 | 403/470 | 20 | |
| | 0 / 1.000 | 100 | 403/470 | 20 | |
| 0.2 | | 50 | 403/470 | 20 | |
| | | 20 | 403/470 | 20 | |
| | | 10 | 403/470 | 20 | |
| | | 100 | 403/470 | 20 | |
| 0.1 | 0 / 1.000 | 50 | 403/470 | 20 | |
| | | 20 | 403/470 | 20 | |
| | | 10 | 403/470 | 20 | |
| | | 100 | 403/470 | 20 | |

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