

Warnings to be added to the user guide of SATEL-TA11 radio modem module

WARNING! Users of SATELLINE-M3-R1, -M3-T1, SLR1 and SLR2 radio modem modules in North America should be aware, that due to the allocation of the frequency band 406.0 – 406.1 MHz for government use only, the use of radio modem on this frequency band without a proper permit is strictly forbidden.

Warning – RF Exposure

"Warning: To comply with FCC RF exposure compliance requirements, a separation distance of at least xx cm must be maintained between the antenna of this device and all persons. This device must not be co-located or operating in conjunction with any other antenna or transmitter."

Modification warning statement

"Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment."

Class B digital device statement

"Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help."

Safe distances for General Public Use

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

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:

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

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 |

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

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