

Fixed Network Transceiver (FNT)

Applications: The Fixed Network Transceiver (FNT) is used to communicate with Tesla endpoints. It is an environmentally sealed control box that is able to adapt to various installation settings. The FNT is able to receive, store, and communicate meter readings to the cloud based Meter Data Management System for further use and analysis. The FNT produces a one (1) watt transmissions in the 902-928 MHz unlicensed ISM band that falls within FCC Part 15.247 rules and guidelines.

FNC Features and Benefits:

- Supports two-way communications over an unlicensed frequency
- Provide priority alarms and over-the-air updates
- Flexible installation options
- Memory back-up (90 days). Supports and process up to 31,500 Tesla endpoints
- Battery backup capable of maintaining eight (8) hours of support
- Provides a "Health Management" application within the MDM to monitor the status of all Data Collection Devices and Tesla endpoints
- Upon start-up after power failure, the FNC must restore databases, tables, and logs to the previous state. Capable of using both a primary and secondary data links providing two-way Ethernet TCP/IP with the following as backhauls for data:
 - o Wired (DSL or cable)
 - 0 Wireless
 - Wi-Fi 0
 - Fiber 0
 - **GPRS** 0
 - **CDMA**

Specifications:

FNC Power Requirements

The FNT is powered via 110 - 220V AC

FNC Communication

- (1) watt transmissions
- Logs all events mentioned below and communicate to the MDM:

Link Failures

- The FNT link failure time and date the MDM is logged and all data is saved for thirty (30) days
- The FNT tries continuously to re-establish a link to the cloud based MDM



Reset

- The FNT can be reset by the MDM
- A manual reset function is also available
- Transfer the past thirty (30) days of data stored in a non-volatile memory to the Meter Data Management (MDM) system upon power up reset.
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Installation & Mounting Requirements

• The FNT antenna should have the ability to be installed on the top of water towers. Other installation applications should include cell towers, tall buildings, and/or other elevated structures. The FNT must be powered by 110–220VAC.

Environmental Characteristics

- Operating temperature of -22°F to +140°F (-30°C to +60°C)
- Storage temperature of -40°F to +185°F (-40°C to +85°C)
- Operating humidity of 0 to 95% Non-Condensing
- NEMA 3R enclosure and passes the UL50 (Underwriter's Laboratory) rain test
- Meets vibration requirement of MIL-810F

Fixed Network Transceiver Measurements

- 15"X 13.8"X 6.7" in dimension
- Weight 11 pounds



Fixed Network Repeater Measurements

- 4" x 6" x 9" in dimension
- Weight 2 pounds





