

220 MHz Canopy Network Controller

Gateway for long-range, wireless
two-way communications



An NC-2200 communicates with multiple RT-3205 collectors via an antenna mounted on a radio tower or office building. A TCP/IP connection to the NS-2000 Network Server located at the utility can be made via microwave, fiber-optic cable, 10/100 Ethernet, ADSL, or dial-up. If fiber, WiFi, or another network is preferred, a direct TCP/IP connection can be used.

TUNet provides end-to-end communications from data collection, to backhaul, through delivery to a central control and integration point. It is the multi-application network that enables a utility to achieve a high level of command and control over its distribution network and an unprecedented level of operational efficiency.

TUNet allows a utility to introduce advanced functionality all at once...or one step at a time. Because the network is already in place, follow-on applications require little or no additional infrastructure, minimizing capital costs for subsequent deployments, feature enhancements, or capacity increases.

COMMUNICATIONS NETWORK

The NC-2200 Network Controller coordinates upstream and downstream 220 MHz radio traffic over Tantalus Utility Network – TUNet®. It provides the rapid and secure data transmission needed for advanced metering and ensures that a utility has the communications backbone to support escalating capacity and multiple applications such as outage management, distribution automation, and a full range of demand response programs. The 220 MHz frequency offers excellent signal strength, even over challenging mountainous terrain. The NC-2200 provides point-to-multipoint communication with various electrical devices including meters, load control switches, and capacitor banks. A utility can surgically deploy TUNet-enabled devices anywhere within the broadcast zone and accelerate ROI by targeting customers of greatest need or highest return. Used in conjunction with the NC-9000 Turbo Network Controller 900 MHz canopy, best-in-class ultra-long range coverage will be achieved in the most extreme of terrains particularly high density areas.

TANTALUS ADVANTAGES

- Establishes wide area coverage throughout urban and rural service areas and enables a utility to deploy endpoints anywhere within radio range
- Provides two-way communication for basic advanced metering and multiple advanced applications such as remote disconnect, outage management, and demand response programs for both singlephase & polyphase metering
- Coordinates traffic between utility operations center and field endpoints such as meters, reclosers, and capacitor banks
- Low operating costs; serves as the utility's private network and does not incur ongoing public network service fees
- Expandable capacity; each NC-2200 can support up to 3 channels to accommodate high and low density deployments
- Flexible connectivity options with Network Server via TCP/IP
- Provides low cost, long range communications network; infrastructure can be used by electric, water and gas utilities
- Features Tantalus TruPush™ technology for instant, field initiated event notifications such as outage alerts or load shed success; no device polling required

Radio

- Frequency range: 220 – 222 MHz
- Available channels: 392
- Transmit power: 10 – 100 watts
- Receiver sensitivity: -116 dBm at 12 dB SINAD guaranteed
- Stability: ± 0.1 ppm

Power

- 120 VAC, 15 A, 60 Hz
- Integrated UPS

Approvals / Standards

- FCC for CFR Title 47 Part 90, Subpart T
- FCC for CFR Title 47 Part 15

Physical

- Dimensions of rack mounted cabinet: 32.5 W x " 77 " H x 23" D
- 82.5 W x 195.5 H x 58.4 D cm
- Weight: 1100 lbs / 500 kg
- Cabinet 500 lbs / 227 kg
- Computers & peripherals: 600 lbs / 273 kg

Environmental

- Operating temperature range: 32° to +104° F / 0° to +40° C
- Operating humidity range: 20% to 80% non-condensing

