

> XR-3100

Crossband Repeater

Combined 220 MHz/900 MHz radio for flexible TUNet deployment

The XR-3100 Crossband Repeater extends WAN coverage into hard-to-reach locations and over challenging terrain. The XR-3100 contains both a 220 MHz WAN transceiver and a 900 MHz LAN portal that allows endpoint devices to connect directly to the WAN without going through a meter. Incoming LAN messages from 900 MHz endpoint devices are relayed over the 220 MHz WAN channel without additional hardware.

The XR-3100 operates with all TUNet – Tantalus Utility Network – 900 MHz meter modules used in available TUNet applications.

The XR-3100 can be mounted at any convenient location where VAC power ranging from 100 to 240 is available, such as on the side of a building or at the top of a pole.

Each unit comes with a standard internal antenna. For an extra boost, the internal antenna may be replaced with an optional external antenna. Two types of external antenna are available: omni-directional whip and directional yagi. External 220 MHz WAN antenna kits include the antenna, cable assembly and lightning protector.

The XR-3100 improves radio broadcast range and penetration to ensure that distant sites or those located in challenging urban and rural environments receive reliable communications.

Surgical deployment allows a utility to apply advanced metering at its own pace and in a manner that maximizes ROI. TUNet provides vast radio coverage which enables a utility to prioritize service points with the highest customer service value and operational benefits. Furthermore, it can add capacity and functionality without re-engineering the network.

TUNet® Infrastructure Product

Advantages

- > Provides long-range, terrain hugging communications, even in challenging rural and urban environments
- > Enables a utility to surgically deploy endpoints anywhere without substation constraints
- > Multiple installation options
- > Small size, rugged construction
- > Secure, lockable enclosure
- > TUNet WAN options (wireless RF, GPRS/cellular, Ethernet, WiFi) can be combined to meet economic, coverage and redundancy needs

Radio

- > WAN
 - Frequency range: 220–222 MHz
 - Channels: 200
 - Transmit power: 5 watts (+37 dBm)
 - Receiver sensitivity: -114 dBm at 12 dB SINAD guaranteed
 - Standard antenna: internal unity gain
 - Optional external antennas:
 - 5.2 dBi omnidirectional whip (AE-3010)
 - 9.1 dBi directional yagi (AE-3020)
- > LAN
 - Frequency range: 902–928 MHz; license exempt
 - Transmitter power: 0.5 watts (+27 dBm)
 - Antenna: internal

Power Input

- > Supply: 100 to 240 V at 60 Hz
- > Quiescent consumption: 4 watts
- > Rechargeable battery backup for outage reporting

Physical

- > Dimensions: 11" W x 13.25 H x 5" D
28 W x 33 H x 12.5 D cm
- > Weight: 6.8 lbs / 3.1 kg

Environmental

- > Operating temperature range: -22° to +149° F / -30° to +65° C
- > Operating humidity range: 5% to 95% non-condensing

Approvals / Standards

- > FCC for CFR Title 47 Part 90 and Part 15b
- > ANSI/UL 60950-1-2002
- > CSA CAN / CSA C22.2 No. 60950-1-03
- > Rain Proof Type 3R enclosure
- > CSA/UL certified

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