

Tropos Point-to-Point and Point-to-Multipoint Radios



Tropos Point-to-Point (PTP) and Point-to-Multipoint (PTMP) Radios provide a seamless extension to Tropos mesh networks. They are optimized for fixed, private networks and deliver high-bandwidth PTP or PTMP communications to smart grid assets. Tropos PTP/PTMP Radios can be used to communicate directly to devices such as recloser and capacitor bank controllers and AMI collectors. They can also be used as backhaul for Tropos Mesh Router clusters delivering broadband connectivity to substations.

FEATURES AND BENEFITS

- ❖ Latency as low as 1 millisecond
- ❖ Strong security
 - AES-128 and AES-256 encryption
 - X.509 certificate-based authentication
 - Optional FIPS 140-2 certification
- ❖ Supports range of frequencies:
 - Licensed 3.65 and 4.9GHz bands
 - Unlicensed 5.4 and 5.8GHz bands
- ❖ Outdoor unit configuration with one common hardware element
- ❖ Simple system installation
- ❖ IP67 rated
- ❖ Tropos Control Network Management

For product specifications, please contact Tropos.

Network administration and performance monitoring for Tropos Mesh Routers and Tropos Directional Radio Systems are provided by Tropos Control, the industry-leading management solution for wireless networks.

Tropos PTP/PTMP Radios deliver high throughput, low latency, and robust line-of-sight (LOS) and non-line-of-sight (NLOS) connectivity. These field-proven solutions are used worldwide for high-availability communications. Offering a flexible and future-proof solution, the radios support operation in the licensed 3.65 GHz and 4.9 GHz bands, or the unlicensed 5.4 and 5.8 GHz bands. The system delivers a cost effective solution that enables users to select channel size and throughput to meet their requirements.

The same hardware is used for both PTP and PTMP applications; functionality is determined by software. The radios are an all outdoor unit (ODU) design that simplifies installation by eliminating the environmental enclosure needed for an indoor unit (IDU). The radio is rated to IP67, ensuring survivability in the harshest weather conditions.

Secure communications is delivered through AES-128 or -256 encryption and X.509 authentication. FIPS 140-2 certification is available as an option.

❖ PTP configuration

The PTP configuration is ideal for high-capacity backhaul and substation connectivity applications, delivering Ethernet data rates up to 100 Mbps. PTP connections of up to 31 miles can be established, providing an ideal solution for extending connectivity into rural environments.

❖ PTMP configuration

The PTMP configurations can be used as backhaul for Tropos mesh network clusters and to extend high-bandwidth Ethernet connectivity to smart grid assets throughout sparse suburban and large rural areas. The system provides Quality of Service (QoS) controls that enable traffic prioritization for multiple applications. The same hardware is used for both the base station and subscriber units, with the functionality determined by software.

PTMP networks are constructed around base stations. In the PTMP configuration, the system can be built from a single radio with an omnidirectional antenna or in three-, four- and six-sector configurations. Each sector can support up to 20 subscriber units with per-subscriber data rates of up to 54Mbps.

Simple Installation

System installation is simple and enabled by an audible antenna alignment indicator, a GUI alignment mode display, and a built-in spectrum analyzer.

Advanced Network Management Platform Delivers Optimized Network Visibility and Control

Tropos Control is a standards-based network management system that consolidates management for Tropos Mesh Routers and Tropos Directional Radio Systems. Designed around an intuitive Web-based interface, Tropos Control simplifies the remote management of Tropos products, and is ideal for dynamically deploying and configuring networks ranging in size from hundreds to thousands of Tropos wireless network nodes.

Tropos Control minimizes planning, deployment, and operating costs — and increases the efficiency of management personnel — by performing complex tasks such as global provisioning and software updates across the network in a single session.



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