

LigoPTP 3-18

3 GHz Point-to-Point Integrated Backhaul Device



Key Features

- Highest TX power 3 GHz PTP solution on the market, ideal for:
 - Dedicated Access
 - In-Band WiMax Backhaul
- Flexible center channel and channel width capability (5/10/20 MHz) for throughput optimization
- True TCP throughput up to 40 Mbps
- 50,000 packets-per-second (PPS) - ideal for VOIP backhaul applications
- ARQ (Selective Repeat) for very high throughput
- Dynamic TDD for bandwidth optimization
- 18 dBi integrated panel antenna for long distance PTP links
- PoE built-in for single cable installation
- Advanced security technologies
- Comprehensive management features
 - Web GUI
 - Command line management via SSH
 - RCMS server support for configuration
 - SNMP V1/2/3 with traps supporting MIBs: 802.1, 802.1x, MIBII
 - Syslog support
- Rugged articulating bracket solution for multi-facet mounting

Product Overview

LigoWave delivers the most robust 3 GHz PTP solution on the market by coupling ultra-high output power, flexible channel width capability (5/10/20 MHz), and industry-leading proprietary software mechanisms. The LigoPTP 3 Series products offer carrier-class link connectivity in areas where 2.4 and 5 GHz spectrums are crowded or unavailable. At true TCP throughput capability of 40 Mbps and packets-per-second performance of 50,000 PPS, the LigoPTP 3 Series products are perfect for dedicated access or In-band Wi-Max backhaul applications (including VOIP). The LigoPTP 3-18 product features an integrated 18 dBi panel antenna, with narrow beamwidth to enable long-range, rock-solid link connectivity.

The LigoPTP 3-18 showcases an array of advanced software mechanisms that provide optimal point-to-point connectivity for high-throughput, long distance links. LigoWave's proprietary PTP mechanisms utilize techniques such as Dynamic Time Division Duplexing (TDD) to dynamically allocate bandwidth in the direction needed, thus increasing link efficiency and greatly decreasing the impact that distance has on throughput of the link. The LigoWave point-to-point products also feature selective repeat ARQ technology, an enhanced error-correction software mechanism that optimizes data traffic to provide very high throughput over high-bandwidth, long-range links even in the presence of interference. The LigoPTP 3-18 is also compatible with RCMS, a centralized configuration, firmware, and statistics server offered by LigoWave for carrier class diagnostic and configuration management capabilities.

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Specifications

WLAN Standard

Proprietary 3.3 - 3.7 GHz (Country Dependent)

Radio Scheme

3.3 - 3.7 GHz: OFDM - Variable modulation range
(64QAM, 16QAM, QPSK, BPSK)
ARQ (Selective Repeat)

Error Correction

FEC, ARQ (Selective Repeat)

Duplexing Scheme

Dynamic Time-Division Duplexing (TDD)

Frequency Range

3.3 GHz - 3.7 GHz (Country Dependent)
3.650 - 3.675 (USA Operating Range)

Channel Size

5/10/20 MHz

RF Output Power

27 dBm Peak - Adjustable (Country Dependent)

Receiver Sensitivity

BPSK: -93 ± 2 dBm, QPSK: -89 ± 2 dBm
16QAM: -84 ± 2 dBm, 64QAM: -75 ± 2 dBm

Operating Mode

Point-to-Point

Power System

Power over Ethernet, 9-48V DC
18V/1.0 A Integrated PoE Power Supply Included
Dual-layer ethernet surge protection

Antenna

Integrated 18 dBi Panel

3 dB Beamwidth (Vertical/Horizontal)

22 deg/ 16 deg

Security

Password Protection
AES Encryption
SSH Configuration Option

Operating Environment

Temperature: $-20\text{C} \sim 65\text{C}$
Humidity: 0 - 95% (non-condensing)

Mechanical

Dimensions: 13 in. x 13 in. x 4 in.
Weight: 7 lb. (mount included)
Wind Load: 1.23 ft.²

Warranty

2-Years

Certification

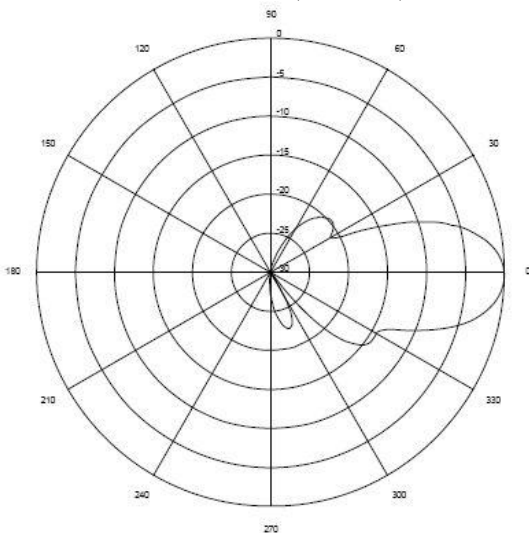
FCC/CE

Test Results

TCP Throughput based on channel size

	5 MHz	10 MHz	20 MHz
5 Miles	10 Mbps	20 Mbps	40 Mbps
20 Miles	5 Mbps	10 Mbps	20 Mbps
30 Miles	3 Mbps	6 Mbps	12 Mbps

RF Patterns (Vertical)



RF Patterns (Horizontal)

