

# LigoPTP 5-N

5 GHz Point-to-Point Connectorized Backhaul Device



## Key Features

- 500 mW TX power, 5 GHz PTP bridge, ideal for:  
Dedicated Access  
Backhaul
- Flexible center channel and channel width capability (5/10/20/40 MHz) for throughput optimization
- True TCP throughput up to 70 Mbps
- 50,000 packets-per-second (PPS) - ideal for VOIP backhaul applications
- ARQ (Selective Repeat) for very high throughput
- Dynamic TDD for bandwidth optimization
- External N-connector for custom antenna application
- 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 seamless 5 GHz point-to-point connectivity with the release of the LigoPTP 5-N connectorized PTP bridge. Hosting a powerful 27 dBm RF engine, this product enables carrier-class point-to-point operation, ideal for dedicated access or backhaul applications (including VOIP). The LigoWave PTP product family couples flexible channel width capability (5/10/20/40 MHz) and industry-leading proprietary software mechanisms to deliver true TCP throughput capability of 70 Mbps and packets-per-second performance of 50,000 PPS. The LigoPTP 5-N product features an external N-Connector for custom antenna application and is housed in a rugged, cast aluminum enclosure.

The LigoPTP 5-N 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 5-N 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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To learn more about LigoWave products, visit [www.ligowave.com](http://www.ligowave.com).



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## 5 GHz Point-to-Point Connectorized Backhaul Device



### Specifications

#### WLAN Standard

Proprietary 5 GHz (Country Dependent)

#### Radio Scheme

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

4.990 GHz - 5.85 GHz (Country Dependent)

#### Channel Size

5/10/20/40 MHz

#### RF Output Power

27 dBm Peak - Adjustable (Country Dependent)

#### Receiver Sensitivity

BPSK:  $-94 \pm 2$  dBm, QPSK:  $-83 \pm 2$  dBm  
16QAM:  $-77 \pm 2$  dBm, 64QAM:  $-74 \pm 2$  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

External N-Connector for Custom Antenna Application

#### 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: 8.75 in. x 8.75 in. x 3.5 in.  
Weight: 7 lb. (mount included)  
Wind Load: 0.53 ft.<sup>2</sup>

#### Warranty

2-Years

#### Certification

FCC/IC/CE

### Test Results

#### TCP Throughput based on channel size\*\*

	5 MHz	10 MHz	20 MHz	40 MHz
5 Miles	10 Mbps	20 Mbps	40 Mbps	70 Mbps
20 Miles	5 Mbps	10 Mbps	20 Mbps	35 Mbps
30 Miles	3 Mbps	6 Mbps	12 Mbps	24 Mbps

\*\*Note: Throughput results were measured using 23dBi Panel Antennas on each side of the PTP link

