



TeraMax Ruggedized Enclosure (EX)



TeraMax Flat Panel Enclosure (FP)

TeraMax™ P2P

TurboCell® OFDM Point-to-Point System

Description

The TeraMax P2P is a broadband wireless networking solution offering an optimal combination of throughput, range, suitability for outdoor environments, network scalability and value. A powerful feature set – including orthogonal frequency division multiplexing (OFDM), adaptive dynamic polling, packet aggregation, bandwidth management at the client, and enhanced security comprising AES – provides TeraMax with much of the functionality of WiMAX today.

OFDM: enables communication even without total line of sight.

Polling: by actively providing equal time to all clients in the network, the system prevents interference among nodes, and thus maximizes network scalability.

Packet aggregation and bandwidth management: ensure optimal distribution of bandwidth throughout the network.

TeraMax P2P systems are ideally suited for wireless Internet service providers seeking to enhance network performance; cable and DSL operators looking for cost-effective backhaul in remote areas; or enterprises building metropolitan or regional private data networks. These systems can be combined with TeraMax Point-to-MultiPoint systems (see separate specification sheet) or products throughout extensive portfolio to comprehensively address your network requirements.

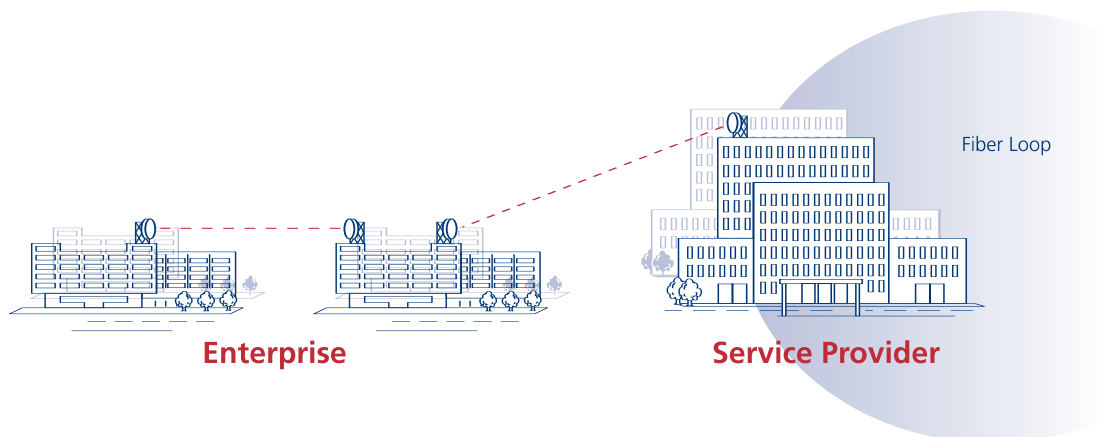
TeraMax P2P systems, or bridges include mounting hardware, Power over Ethernet (POE), and system management software. They can be ordered with various external antennas and lengths of cable to complete the turnkey solutions. Also available are systems with 23 dBi flat-panel antennas, either affixed to a ruggedized, carrier-grade enclosure, or integrated into a flat-panel outdoor-rated enclosure.

Key Features

- Over-the-air data rate of 36 Mbps maximum
- Range in excess of 30 miles
- Near-line-of-sight communication utilizing orthogonal frequency division multiplexing (OFDM)
- Operates on the 5.8 GHz license-free frequency band
- Point-to-Point and Point-to-MultiPoint configurations available
- Choices of enclosures and antennas
- Engineered from the ground up to withstand conditions in the outdoors and some of the harshest environments
- TurboCell protocol eliminates hidden node problems or interference between clients to maintain throughput as new clients are added to the network

APPLICATIONS

- Point-to-Point Wireless Bridge
- Enterprise LAN and PBX extension
- WAN connection redundancy
- ISP remote POP
- ISP direct customer connections using point-to-point
- Extension of an existing fiber network



TeraMax Point-to-Point Specifications

PHYSICAL AND ENVIRONMENTAL	
Ethernet Interface (at PoE Injector)	RJ-45, 10/100 Base-T
Ethernet Cable Length	300 ft maximum
RF Interface (external antenna models)	N-Female
Operating Temperature Range	-30°C to 60°C (-22°F to 140°F)
Storage Temperature	-40°C to 75°C (-40°F to 167°F)
Operating Humidity	0% to 100% (non-immersion rain)
Altitude	10,000 ft (3,000 meters)
Power Scheme	Power over Ethernet (POE) with Cat 5 DC Injector
Power Supply	110/220 VAC, 50-60 Hz
Power Consumption/Current Draw	16 W Max/0.5 A Max
Input Voltage Required at Radio	48 VDC (supplied via POE)
Dimensions (H x W x D)	EX Enclosure: 12 x 14 x 3.25 in FP Enclosure: 15.3 x 15.3 x 1.13 in
Weight	EX Enclosure: 9.65 lbs (4.38 Kg) FP Enclosure: 2.90 lbs (1.32 Kg)
Enclosure (both EX and FP)	Outdoor, all-weather
LED status indicators	Power, Wireless Link, and Ethernet Link
Min - Max Diameter of Mounting Pole	For EX Enclosure: 1.0 -3.0 in For FP Enclosure: 0.75 - 1.5 in
WIRELESS	
Operational Frequency Band	5725 – 5850 MHz
Channels (user selectable)	5 non-overlapping channels with a bandwidth of 20 MHz: 5745 MHz - Channel 149 5765 MHz - Channel 153 5785 MHz - Channel 157 5805 MHz - Channel 161 5825 MHz - Channel 165
Over-The-Air Data Rate	User selectable up to 36 Mbps
Throughput ¹	16 Mbps
Modulation Scheme	OFDM-QPSK
Radio Operation	Time Division Duplex (TDD)
FCC Certified	Yes
Transmit Output Power (Typical)	+23 dBm
Receiver Sensitivity ²	-72 dBm @ 36 Mbps -76 dBm @ 24 Mbps -80 dBm @ 18 Mbps -82 dBm @ 12 Mbps -83 dBm @ 9 Mbps -84 dBm @ 6 Mbps
Maximum Receive Level	-30 dBm

- This is a typical figure. Actual throughput varies according to the specifications of the antenna used and the conditions of the terrain.
- Actual receiver sensitivity for individual products may vary based on manufacturing process and environmental variations.

A Terabeam outdoor Ethernet cable must be ordered separately per unit. Available lengths are 50, 100, 200, or 300 feet. Models with external antennas include one 6 ft LMA-600 coax cable per radio.