



PTP 49600

Motorola 4.9 GHz Point-to-Point Bridges



High-Performance Connectivity for Public Safety

Operating in the 4.9 GHz band at data rates up to 125 Mbps, Motorola's PTP 49600 Point-to-Point Wireless Ethernet Bridges provide public safety officials with high-throughput, super-reliable connectivity for voice, video and data communications. The systems deliver up to 99.999% availability, even in non-line-of-sight environments, across long distances, over open terrain or water, and through extreme weather conditions.

Motorola's PTP LINKPlanner lets you perform path calculations and project link performance prior to purchase, based on variables specific to your deployment. With a small footprint, the light-weight PTP 49600 radios are fast and easy to install. Audio and graphical assistance features help you obtain maximum signal strength and throughput with ease.

PTP 49600 bridges can form a stand-alone network or integrate with other Motorola Wireless Broadband solutions to enable real-time access to vital information such as:

- On-scene streaming audio and video
- Aerial imagery and maps

- Building floor plans and fire hydrant locations
- Medical files
- Missing-person images
- Arrest warrants and firearms permits

Motorola Wireless Broadband

Motorola's industry-leading portfolio of reliable and cost-effective wireless broadband solutions provide and extend coverage both indoors and outdoors. The Motorola Wireless Broadband portfolio offers high-speed connectivity systems that support data, voice and video communications, enabling a broad range of fixed and mobile applications for public and private networks. With Motorola's innovative software solutions, customers can design, deploy and manage broadband networks, maximizing up-time and reliability while lowering installation costs.

Motorola PTP 49600 Bridges

4.9 GHz Part Numbers

- WB3225 PTP 49600 (5 MHz) Integrated Link
- WB3226 PTP 49600 (5 MHz) Connectorized Link
- WB3262 PTP 49600 Software Key – 5→10 MHz Link
- WB3263 PTP 49600 Software Key – X→20 MHz Link

SPECIFICATION SHEET

Motorola 4.9 GHz Point-to-Point Bridges – PTP 49600

Radio Technology	Remarks
RF band	4.940 GHz to 4.990 GHz*
Channel size	Configurable to 5, 10 or 20 MHz
Channel selection	By <i>intelligent</i> Dynamic Frequency Selection (<i>i</i> -DFS) or manual intervention; automatic selection on start-up and continual adaptation to avoid interference
Transmit power	Varies with modulation mode and settings from 0 to 23 dBm
System gain	Integrated: Varies with modulation mode; up to 165 dB using 22 dBi integrated antenna** Connectorized: Varies with modulation mode and antenna type**
Receiver sensitivity	Adaptive; varying between -95 and -59 dBm
Modulation	Dynamic, adapting between BPSK and 256 QAM
Error correction	FEC
Duplex scheme	Time Division Duplex (TDD) and Half Duplex Frequency Division Duplex (HD-FDD), Dynamic or Fixed ratio; each TDD-enabled link requires a Memorylink UltraSync™ GPS-100M synchronization unit to provide the PTP 49600 with an accurate timing reference signal
Antenna	Integrated: Integrated flat plate 22 dBi, 20 degree beam width Connectorized: Can operate with a selection of separately-purchased single and dual polar antennas through 2 x N-type female connectors (local regulations should be checked prior to purchase)
Range	Up to 124 miles (200 km)***
Security and encryption	Proprietary scrambling mechanism; optional FIPS-197 compliant 128/256-bit AES Encryption * Regulatory conditions for RF bands should be confirmed prior to system purchase ** Gain, maximum transmit power and effective radiated power may vary based on regulatory domain *** In all cases the range limit is set by the latest software release

Ethernet Bridging & T1/E1

Protocol	IEEE 802.3
User data throughput	Dynamically variable up to 125 Mbps at the Ethernet (aggregate): 5 MHz Channel: Up to 41 Mbps 10 MHz Channel: Up to 84 Mbps 20 MHz Channel: Up to 125 Mbps
Latency one way	<2 ms typical with 20 MHz channel <3 ms typical with 10 MHz channel <5 ms typical with 5 MHz channel
Packet prioritization	IEEE 802.1p, single priority level
Ethernet interface	10 / 100 / 1000 Base T (RJ-45), auto MDI/MDIX, optional 1000 Base SX
T1/E1 interface	ITU-T G.703/G.704 G.823/G.824 Single T1/E1 with 5 and 10 MHz channels; dual T1/E1 with 20 MHz channel

Management & Installation

LED indicators	Power status, Ethernet link status and activity
System management	Web or SNMP V1/2c using MIB-II and proprietary PTP MIB; Canopy® Prizm
Installation	Built-in audio and graphical assistance for link optimization
Connection	Distance between outdoor unit and primary network connection: up to 330' (100 meters)

Physical

Dimensions	Integrated Outdoor Unit (ODU): Width 14.5" (370 mm), Height 14.5" (370 mm), Depth 3.75" (95 mm) Connectorized ODU: Width 12.2" (309 mm), Height 12.2" (309 mm), Depth 4.1" (105 mm) Powered Indoor Unit (PIDU Plus): Width 9.75" (250 mm), Height 1.5" (40 mm), Depth 3" (80 mm)
Weight	Integrated ODU: 12.1 lbs (5.5 kg) including bracket Connectorized ODU: 9.1 lbs (4.3 kg) including bracket PIDU Plus: 1.9 lbs (864 g)
Wind speed	202 mph (325 kph)
Operating temperature	-40°F (-40°C) to +140°F (+60°C), including solar radiation
Power supply	Integrated with Indoor Unit
Power source	90–240 VAC, 50–60 Hz / 36-60V DC
Power consumption	55 W max

Environmental & Regulatory

Protection and safety	UL60950
Radio	FCC Part 27
EMC	FCC Part 15 Class B



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