

PTP 600

Point-to-Point Bridges



Integrated

Connectorized

Radio Technology	Remarks
RF band	45600: 4.400 – 4.600 GHz ¹ (Federal and NTIA) 48600: 4.700 – 4.940 GHz ¹ (NTIA) 4.710 – 4.940 GHz ¹ (Federal) 4.710 – 5.000 GHz ¹ (Federal Extended) 4.940 – 4.990 GHz ¹ (Public Safety as appropriate)
Channel size	45600: Configurable to 5, 10, 15, 20 or 30 MHz, depending on region code 48600: Configurable to 5, 10 or 20 MHz, depending on region code
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	45600: +27 dBm for all modulation modes 48600: Varies with modulation mode and settings from +27 dBm to +22 dBm
System gain	45600 Integrated: Varies with modulation mode; up to 168 dB using 21.5 dBi integrated antenna ² 48600 Integrated: Varies with modulation mode; up to 169 dB using 22 dBi integrated antenna ² Connectorized: Varies with modulation mode and antenna type ²
Receiver sensitivity	Adaptive, varying between -98 and -60 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-synchronized link requires a Motorola PTP-SYNC Synchronization Unit to provide an accurate timing reference signal
Antenna	45600 Integrated: Integrated flat plate 21.5 dBi / 11° 48600 Integrated: Integrated flat plate 22 dBi / 10° 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	Optional FIPS-197 compliant 128/256-bit AES Encryption; optional FIPS 140-2 ³ Level 2 mode; certification status may be confirmed at: http://csrc.nist.gov/groups/STM/cmvp/inprocess.html

Ethernet Bridging & T1/E1

Protocol	IEEE 802.3	
User data throughput	45600: Dynamically variable up to 300 Mbps at the Ethernet (aggregate): 5 MHz Channel: Up to 40 Mbps 10 MHz Channel: Up to 84 Mbps 15 MHz Channel: Up to 126 Mbps 20 MHz Channel: Up to 168 Mbps 30 MHz Channel: Up to 300 Mbps	48600: Dynamically variable up to 200 Mbps at the Ethernet (aggregate): 5 MHz Channel: Up to 48 Mbps 10 MHz Channel: Up to 100 Mbps 20 MHz Channel: Up to 200 Mbps
QoS	8 Queues	
Ethernet Interface	10 / 100 / 1000 Base T (RJ-45), auto MDI/MDIX, optional 1000 Base SX	
T1/E1 Interface	ITU-T G.703 G.823/G.824 Supports up to two T1/E1 ports	
T1/E1 Latency (one way)	As low as 1.7 ms, depending on range, bandwidth, modulation mode and number of T1/E1 ports; accurate T1/E1 latency figures can be determined for any given configuration using the PTP LINKPlanner	

Management & Installation

LED indicators	Power status, Ethernet link status and activity
System management	Web access via browser or TLS/HTTPS; SNMP v1, v2c and v3 ⁴ , MIB-II and proprietary PTP MIB; Motorola One Point Wireless Suite
Installation	Built-in audio and graphical assistance for link optimization
Connection	Distance between outdoor unit and primary network connection: up to 330 feet (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)
Operating temperature	-40°F (-40°C) to +140°F (+60°C), including solar radiation
Wind speed	202 mph (325 kph)
Power supply	Integrated with Indoor Unit
Power source	90–240 VAC, 50–60 Hz / 36–60V DC; redundant powering configurations supported
Power consumption	55 W max