

POINT-TO-POINT 500 SERIES RADIOS



PTP 500 Integrated



PTP 500 Connectorized

SPECIFICATION SHEET

5.4 AND 5.8 GHZ POINT-TO-POINT BRIDGES – PTP 500 SERIES

RADIO TECHNOLOGY	REMARKS
RF band	5.725 GHz–5.875 GHz; 5.470 GHz–5.725 GHz ¹
Channel size	Configurable to 5, 10 or 15 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 -18 dBm to 27 dBm
System gain	Integrated: Varies with modulation mode; up to 167 dB using 23 dBi integrated antenna ² Connectorized: Varies with modulation mode and antenna type ²
Receiver sensitivity	Adaptive, varying between -94 dBm and -69 dBm
Modulation	Dynamic; adapting between BPSK and 64 QAM
Error correction	FEC
Duplex scheme	Time Division Duplex (TDD); each TDD-synchronized link requires a PTP-SYNC Synchronization Unit to provide an accurate timing reference signal
Antenna	Integrated: Integrated flat plate 23 dBi / 8° Connectorized: Can operate with a selection of separately-purchased single and dual polar antennas through 2 x N-type female connectors (check local regulations prior to purchase)
Range	Up to 155 miles (250 km)
Security and encryption	Proprietary scrambling mechanism; optional FIPS-197 compliant 128/256-bit AES Encryption

ETHERNET BRIDGING & T1/E1

Protocol	IEEE 802.3
User data throughput	Full: Dynamically variable up to 105 Mbps at the Ethernet (aggregate): 5 MHz Channel – Up to 35 Mbps 10 MHz Channel – Up to 70 Mbps 15 MHz Channel – Up to 105 Mbps Lite: Dynamically variable up to 52 Mbps at the Ethernet (aggregate): 5 MHz Channel – Up to 17 Mbps 10 MHz Channel – Up to 35 Mbps 15 MHz Channel – Up to 52 Mbps
Latency	<3 ms average each direction
QoS	802.1p (2 levels)
Interface	10 / 100 Base T (RJ-45) – auto MDI/MDIX
T1/E1 interface	Single T1/E1 port (with splitter cable); G703/G704, G823/G824

MANAGEMENT & INSTALLATION

LED indicators	Power status, Ethernet link status and activity
System management	Web or SNMP v1/v2c/v3 using MIBII and a proprietary PTP MIB; Motorola Wireless Manager, version 2.2 or higher
Installation	Built-in audio and graphical assistance and voltage output for link optimization
Connection	Distance between outdoor unit and primary network connection: up to 330 ft. (100 meters)
Lightning protection	Built into the Outdoor Unit (ODU); an external PTP Lightning Protection Unit (PTP-LPU) end device is required near the base of the tower or wall at the cable entrance point leading to the network

PHYSICAL

Dimensions	Integrated 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: 11.8 lbs (5.35 kg) including bracket Connectorized ODU: 10.4 lbs (4.7 kg) including bracket PIDU Plus: 1.9 lbs (864 g)
Wind speed survival	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	50 W max

ENVIRONMENTAL & REGULATORY

Operating temperature	-40°F (-40°C) to +140°F (+60°C), including solar radiation
Protection and safety	UL60950-1; IEC60950-1; EN60950-1; CSA-C22.2 No. 60950-1
Radio	5.8 GHz: USA CFR 47 Part 15.247 Canada IC RSS-210 Issue 7 Europe EN 302 502, Eire Comreg 06/47R, UK IR2007 5.4 GHz: USA CFR47 Part 15.407 Europe EN 301 893, Canada IC RSS-210 Issue 7
EMC	USA CFR 47 Part 15 Class B, Canada CSA Std C108.8 1993 Class B, Europe EN 55022 CISPR 22
Safety	Europe EN 301 489 - 1/4

¹ Regulatory conditions for RF bands may vary by geographic location and should be confirmed prior to system purchase.

² Gain, maximum transmit power and effective radiated power may vary based on regulatory domain.