



PTP 58600 & PTP 54600

Motorola 5.8 and 5.4 GHz Point-to-Point Bridges



Spectrum-Efficient, High-Availability Wireless Ethernet Bridges

The Motorola wi4 Fixed Point-to-Point Wireless Ethernet Bridges – PTP 600 Series – bring together the speed and reliability of licensed wireless with the flexibility of the unlicensed space. Operating in the 5.4 and 5.8 GHz bands at Ethernet data rates up to 300 Mbps, the systems are designed for virtually any environment – non-line-of-sight, line-of-sight and high interference – where high throughput is a major requirement and/or single or dual E1/T1 capability is needed.

Through Motorola's unique combination of technologies, PTP 600 Series solutions enhance link performance in a variety of applications, including E1 replacement, Voice-over-IP, video surveillance, distance learning, telemedicine and high-speed backhaul.

The PTP 600 Series bridges are incorporated in Motorola's MOTOwi4 portfolio of innovative wireless broadband solutions that create, complement and complete IP networks. Delivering IP coverage to virtually all spaces, the MOTOwi4 portfolio includes Fixed Broadband, WiMAX, Mesh, and Broadband-over-Powerline solutions for private and public networks.

Motorola PTP 58600 Bridges 5.8 GHz Part Numbers

BP5830BH-2 Integrated
BP5830BHC-2 Connectorised
BP5830BH15-2 Integrated Lite
BP5830BHC15-2 Connectorised Lite

Motorola PTP 54600 Bridges 5.4 GHz Part Numbers

BP5530BH-2 Integrated
BP5530BHC-2 Connectorised
BP5530BH15-2 Integrated Lite
BP5530BHC15-2 Connectorised Lite

TECHNICAL SPECIFICATIONS

Technical Specifications for the Motorola 5.4 and 5.8 GHz Point-To-Point Bridges – PTP 600 Series

Radio Technology	Remarks
RF band	5.725 GHz–5.850 GHz* 5.470 GHz–5.725 GHz*
Channel size	30 MHz
Channel selection/ dynamic frequency control	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; 10 MHz step size for WiMAX compatibility
Transmit power	Varies with modulation mode and settings from -7 dBm to 25 dBm
System gain	Integrated: Varies with modulation mode; up to 162 dB using 23 dBi integrated antenna** Connectorised: Varies with modulation mode and antenna type**
Receiver sensitivity	Adaptive, varying between -91 dBm and -58 dBm
Modulation	Dynamic; adapting between BPSK single and 256 QAM dual
Error correction	FEC, ARQ
Duplex scheme	TDD ratio: Dynamic or Fixed; same or split frequency Tx/Rx
Antenna: type/gain/B/W	Integrated: Integrated flat plate 23 dBi / 7° Connectorised: Approved to operate with flat plate up to 28 dBi or parabolic dish up to 37.7 dBi; connected via 2 x N-type female
Range	Up to 200 km (124 miles)***
Security and encryption	Proprietary scrambling mechanism; optional FIPS-197 compliant 128- and 256-Bit AES Encryption * Regulatory conditions for RF bands should be confirmed prior to system purchase ** Gain and maximum transmit power may vary based on regulatory domain *** In all cases the range limit is set by the latest software release
Ethernet Bridging & E1/T1	
Protocol	IEEE 802.3
User data throughput	Integrated and Connectorised: Dynamically variable up to 300 Mbps at the Ethernet (aggregate) Integrated and Connectorised Lite: Dynamically variable up to 150 Mbps at the Ethernet (aggregate)
Latency	<1 ms each direction typical
Interface	10 / 100 / 1000 Base T (RJ-45) – auto MDI/MDIX, 1000 Base SX option
E1/T1 Interface	G703/G704 G823/G824 Integrated and Connectorised: Provides dual E1/T1 ports Integrated and Connectorised Lite: Provides a single E1/T1 port
Management & Installation	
LED indicators	Power status, Ethernet link status and activity
System management	Web or SNMP using MIBII, WiMAX and private MIB; Canopy® Prizm
Installation	Built-in audio assistance for link optimisation
Connection	Distance between outdoor unit and primary network connection: up to 100 metres (330')
Physical	
Dimensions	Integrated Outdoor Unit (ODU): Width 370 mm (14.5"), Height 370 mm (14.5"), Depth 95 mm (3.75") Connectorised ODU: Width 309 mm (12.2"), Height 309 mm (12.2"), Depth 105 mm (4.1") Powered indoor unit (PIDU Plus): Width 250 mm (9.75"), Height 40 mm (1.5"), Depth 80 mm (3")
Weight	Integrated ODU: 5.5 kg (12.1 lbs) including bracket Connectorised ODU: 4.3 kg (9.1 lbs) including bracket PIDU Plus: 864 g (1.9 lbs)
Wind speed	242 kph (150 mph)
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
Environmental & Regulatory	
Operating temperature	-40°C (-40°F) to +60°C (+140°F), including solar radiation
Protection and safety	UL60950; IEC60950; EN60950; CSA-C22.2 No. 60950
Radio	5.8 GHz: FCC Part 15, sub-part C 15.247, Eire ComReg 03/42, UK Approval to IR2007 5.4 GHz: EN 301 893
EMC	USA–FCC Part 15, Class B; Europe–EN 301 489-4

