

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 T1/E1 capability is needed.

Through Motorola's unique combination of technologies, PTP 600 Series solutions enhance link performance in a variety of applications, including T1 replacement, Voice-over-IP, video surveillance, distance learning, telemedicine and high-speed backhaul.

The PTP 600 Series bridges are part of 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 wi4 Fixed, wi4 Mesh, wi4 Indoor and wi4 WiMAX solutions for private and public networks.

Motorola PTP 58600 Bridges 5.8 GHz Part Numbers

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

Motorola PTP 54600 Bridges 5.4 GHz Part Numbers

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

TECHNICAL SPECIFICATIONS

Motorola 5.4 and 5.8 GHz wi4 Fixed 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-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** Connectorized: 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° Connectorized: 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 124 miles (200 km)*** |
| 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 & T1/E1

| | |
|----------------------|---|
| Protocol | IEEE 802.3 |
| User data throughput | Integrated and Connectorized: Dynamically variable up to 300 Mbps at the Ethernet (aggregate) Integrated and Connectorized 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 |
| T1/E1 Interface | G703/G704 G823/G824 Integrated and Connectorized: Provides dual T1/E1 ports Integrated and Connectorized Lite: Provides a single T1/E1 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 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 | 150 mph (242 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 |

Environmental & Regulatory

| | |
|-----------------------|--|
| Operating temperature | -40°F (-40°C) to +140°F (+60°C), 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 |

