

**MOTOROLA POINT-TO-POINT BROADBAND
WIRELESS SOLUTIONS**
MOTOwi⁴

Motorola Point-to-Point Bridges – PTP 400 Series


**Motorola PTP 58400 Bridges
5.8 GHz Part Numbers**

BP5730BH-2BB Integrated
BP5730BHC-2BB Connectorized
BP5730BH20-2BB Integrated Lite
BP5730BHC20-2BB Connectorized Lite

**Motorola PTP 54400 Bridges
5.4 GHz Part Numbers**

BP5430BH-2AA Integrated
BP5430BHC-2AA Connectorized
BP5430BH20-2AA Integrated Lite
BP5430BHC20-2AA Connectorized Lite

**Motorola PTP 49400 Bridges
4.9 GHz Part Numbers**

WB2623 Integrated
WB2624 Connectorized
WB2627 Integrated Lite
WB2628 Connectorized Lite

High Availability Wireless Ethernet Bridges

Operating in the 5.8 GHz, 5.4 GHz and 4.9 GHz (public safety) bands at data rates up to 43 Mbps, the Motorola wi4 Fixed Point-to-Point Wireless Ethernet Bridges – PTP 400 Series – solutions out-perform comparable wireless systems by maintaining up to 99.999% availability even in non-line-of-sight environments, across long distances, through high-interference areas, over open terrain or water and through extreme weather conditions.

Through Motorola's unique combination of technologies, the systems offer a wireless alternative to remove network bottlenecks, improve communications reliability and increase performance - at less cost than comparable wire-line solutions.

The PTP 400 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.

Note: The Federal Communications Commission (FCC) and Industry Canada (IC) have authorized the Motorola 5.4 GHz PTP 400 Series Point-To-Point Wireless Ethernet Bridges, Integrated models, for sale in the U.S. and in Canada. IC has also authorized the 5.4 GHz Motorola PTP 600 Series, Integrated models, for sale in Canada. Otherwise, the 5.4 GHz versions of these devices have not been authorized as required by the rules of the FCC and the IC, and those devices are not, and may not be, offered for sale or lease, or sold or leased in the United States or Canada, until authorization is obtained.

Technical Specifications for the MOTOROLA POINT-TO-POINT BRIDGES – PTP 400 SERIES

RADIO TECHNOLOGY	REMARKS
RF band	5.725 GHz–5.850 GHz* 5.470 GHz–5.725 GHz* 4.945, 4.955, 4.965, 4.975, 4.985 GHz*
Channel size	5.8 and 5.4 GHz: 12 MHz 4.9 GHz: 10 MHz
Channel selection/ dynamic frequency control	By <i>Intelligent</i> Dynamic Frequency Selection (iDFS) or manual intervention; automatic detection on start-up and continual adaptation to avoid interference
Transmit power control	Adaptive, varying between 25 dBm and -10 dBm according to modulation selected and radio path**
System gain	5.8 and 5.4 GHz Integrated: Varies with modulation mode; up to 168 dB with 23.5 dBi integrated antenna** 4.9 GHz Integrated: Varies with modulation mode; up to 163 dB** Connectorized: Varies with modulation mode and antenna type**
Receiver sensitivity	Adaptive, varying between -96.0 dBm and -72 dBm according to modulation selected
Modulation	Dynamic; 8 modes adapting between BPSK and 64 QAM
Error correction	FEC, ARQ
Duplex scheme	TDD ratio 50:50, 66:33; 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)***
Data rates	5.8 and 5.4 GHz: Up to 43 Mbps at the Ethernet; dynamically variable with modulation range from 3.0 Mbps to 43 Mbps (aggregate) 5.8 and 5.4 GHz Lite: Up to 21 Mbps at the Ethernet; dynamically variable with modulation range from 1.5 Mbps to 21 Mbps (aggregate) 4.9 GHz: Up to 35 Mbps at the Ethernet 4.9 GHz Lite: Up to 17 Mbps at the Ethernet
Security and encryption	Proprietary scrambling mechanism; optional AES 128 Bit 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	REMARKS
Protocol	IEEE 802.3
Packet prioritization	IEEE 802.1p
Interface	10 BASE-T / 100 BASE-T (RJ-45)–auto MDI/MDIX switching
Latency	Throughput Mode: Less than 7 mSec (default) Latency Mode: Less than 6 mSec
MANAGEMENT & INSTALLATION	REMARKS
LED indicators	Power status, Ethernet link status and activity
System management	Web Server and SNMP
Installation	Built-in audio assistance for link optimization
Connection	Distance between outdoor unit and primary network connection: up to 330' (100 meters)
PHYSICAL	REMARKS
Dimensions	Integrated outdoor unit (ODU): Width 14.5" (370 mm), Height 14.5" (370 mm), Depth 3.75" (95 mm) Connectorized ODU: Width 12" (305 mm), Height 12" (305 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
Power consumption	55 W max
ENVIRONMENTAL & REGULATORY	REMARKS
Operating temperature	-40°F (-40°C) to +140°F (+60°C), including solar radiation
Protection and safety	IP65/ 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 4.9 GHz: FCC Part 90
EMC	USA–FCC Part 15, Class B; Europe–EN 301 489-4



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