



PTP 54200

Motorola 5.4 GHz Point-to-Point Bridges



Budget-Conscious Connectivity

The Motorola Fixed Point-to-Point Wireless Ethernet Bridges – PTP 200 Series – give service providers and growing enterprises near-line-of-sight (nLOS) and line-of-sight (LOS) connectivity and high-throughput at an exceptionally low cost of ownership.

Operating in the 5.4 GHz band at Ethernet data rates up to 21 Mbps, the systems are designed to mitigate interference and reach around obstructions that partially block the radio line-of-sight (Fresnel zone) but do not block visual line-of-sight. With its Orthogonal Frequency Division Multiplexing (OFDM) technology, the PTP 200 delivers reliable, secure communications in these environments to support applications such as Voice-over-Internet-Protocol (VoIP), video surveillance and high-speed Internet access.

The Fixed PTP 200 Series Wireless Ethernet Bridges are included in Motorola's Wireless Broadband portfolio of innovative wireless broadband solutions that create, complement and complete IP networks. Delivering IP coverage to virtually all spaces, the Wireless Broadband portfolio includes Fixed, Mesh, Indoor and WiMAX solutions for high-speed connectivity over private and public networks.

Motorola PTP 54200 Bridges 5.4 GHz Part Numbers

5440BH Integrated DES Radio

5441BH Integrated AES Radio

5440BHC Connectorized DES Radio

5441BHC Connectorized AES Radio

SPECIFICATION SHEET

Motorola 5.4 GHz Fixed Point-To-Point Bridges – PTP 200 Series

Radio Technology	Remarks
RF band	5470 MHz - 5720 MHz*
Channel size	10 MHz
Channel spacing	Configurable in 5 MHz increments; up to 25 selectable adjacent channels (may vary by region)
Transmit power	Auto transmit power control by Master up to EIRP limit (-30 dBm to 10 dBm)
EIRP	27 dBm
Antenna gain	Integrated: 17 dBi Connectorized: Varies with antenna type; can operate with a selection of separately-purchased antennas; 50 ohm N-type (check local regulations prior to purchase)
Modulation	Adapting between QPSK, 16 QAM and 64 QAM
Error correction	ARQ; FEC (3/4 Reed-Solomon block coding)
Physical layer	OFDM 256 FFT
MAC layer	Motorola Canopy® proprietary

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

Performance

User data throughput	1X: 7 Mbps, 2X: 14 Mbps, 3X: 21 Mbps (aggregate)
Max. LOS range	Integrated: 1X: 5 mi (8 km), 2X: 2.5 mi (4 km), 3X: 1.25 mi (2 km)
Latency	5-7 ms (round trip)
Encryption	DES; 128-bit AES
Receive sensitivity	1X: -89 dBm, 2X: -78 dBm, 3X: -70 dBm (with FEC)
Integrated link budget	1X: 133 dB (27 dBm EIRP + 17 dB Rx gain + 89 dBm Rx sensitivity) 2X: 122 dB (27 dBm EIRP + 17 dB Rx gain + 78 dBm Rx sensitivity) 3X: 114 dB (27 dBm EIRP + 17 dB Rx gain + 70 dBm Rx sensitivity)

Data

Interface	10 / 100 Base T
Duplex scheme	Half/full duplex, rate auto-negotiated (802.3 compliant)
Protocols used	IPv4, UDP, TCP, IP, ICMP, Telnet, SNMP, HTTP, FTP
QoS	DiffServ QoS
Network management	HTTP, Telnet, FTP, SNMPv2c; compatible with Prizm 3.1 or later and CNUT 3.1 and later
VLAN	802.1Q with 802.1p priority
CIR / MIR	Committed Information Rate / Maximum Information Rate, with Canopy burst MIR

Physical

DC power consumption	<12.6 W at 29.5 VDC
Dimensions	H-13.25" (33.6 cm), W-8.25" (21 cm), D-4.38" (11.1 cm)
Weight	2.8 lbs. (1.3 kg)
Operating temperature	-40°F (-40°C) to +131°F (+55°C)
Wind speed survival	118 mph (190 kph)
Wind loading	45 lbs. (20.4 kg)
MTBF	>40 years

Standards

CE	CE mark
FCC ID	ABZ89FT7629
Industry Canada (IC)	109W-5440
DFS	EN 301 893 v1.4.1 for Europe, Brazil FCC standard for US, IC for Canada



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