

**MOTOROLA WIRELESS BROADBAND**

PTP 49200

4.9 GHz Point-to-Point Bridges

**Affordable Connectivity for Public Safety**

Operating in the 4.9 GHz band at data rates up to 21 Mbps, Motorola's PTP 49200 Point-to-Point Wireless Ethernet Bridges provide public safety officials with near-line-of-sight (nLOS) and line-of-sight (LOS) connectivity for voice, video and data communications. At an extremely affordable investment cost, these solutions are excellent alternatives for cities, towns and counties with very limited budgets.

PTP 49200 bridges are designed to mitigate interference and provide reliable communications in obstructed environments where natural or man-made obstacles partially block the radio line-of-sight (Fresnel zone) but do not block the visual line-of-sight. With Orthogonal Frequency Division Multiplexing (OFDM) technology, PTP 49200 systems deliver reliable, secure and high-throughput communications to support a wide variety of public safety applications such as Internet access, Voice-over-IP (VoIP), multimedia, video surveillance, leased line replacement, building-to-building and remote connectivity and traffic backhaul.

Motorola Wireless Broadband

PTP 49200 systems are included in Motorola's comprehensive portfolio of reliable and cost-effective wireless broadband solutions that, together with our WLAN solutions, provide and extend coverage both indoors and outdoors. The Motorola Wireless Broadband portfolio offers high-speed Point-to-Point, Point-to-Multipoint, Mesh, Wi-Fi and WiMAX networks that support data, voice and video communications, enabling a broad range of fixed and mobile applications for public and private systems. With Motorola's innovative software solutions, customers can design, deploy and manage a broadband network, maximizing uptime and reliability while lowering installation costs.

Motorola PTP 49200 Radios 4.9 GHz OFDM Part Numbers

WB3274: Integrated Backhaul, Link

WB3275: Integrated Backhaul with AES, Link

WB3276: Connectorized Backhaul, Link

WB3277: Connectorized Backhaul with AES, Link

SPECIFICATION SHEET

Motorola 4.9 GHz Point-to-Point Bridges – PTP 49200

Radio Technology	Remarks
RF band	4940 – 4990 MHz*
Channel size	10 MHz
Channel spacing	Configurable on 0.5 MHz increments
Transmit power	Auto transmit power control by Master up to 18 dBm
Receive sensitivity	1X: -89 dBm, 2X: -80 dBm, 3X: -71 dBm (with FEC)
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)
EIRP	35 dBm (with integrated antenna)
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: 15 mi (24 km), 2X: 4 mi (6.4 km), 3X: 2 mi (3.2 km) Connectorized: Varies with antenna type and size
Latency	5-7 ms (round trip)
Encryption	DES; 128-bit AES
Integrated link budget	1X: 141 dB (35 dBm EIRP + 17 dB Rx gain + 89 dBm Rx sensitivity) 2X: 132 dB (35 dBm EIRP + 17 dB Rx gain + 80 dBm Rx sensitivity) 3X: 123 dB (35 dBm EIRP + 17 dB Rx gain + 71 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, PPPoE
QoS	DiffServ QoS
Network management	HTTP, Telnet, FTP, SNMPv2c; compatible with Prizm 3.2 or later and CNUT 3.1 or later
VLAN	802.1Q with 802.1p priority
CIR / MIR	Committed Information Rate / Maximum Information Rate, with Canopy burst MIR

Physical

DC power consumption	<13 W at 56 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

FCC ID	ABZ89FT7631
Industry Canada (IC)	109W-4940



Motorola, Inc., 1303 E. Algonquin Road, Schaumburg, Illinois 60196 U.S.A. • www.motorola.com/ptp

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