Cambium Networks

SPEC SHEET

PTP 500

PTP 500 Series systems can create a powerful wireless network for today's businesses and government agencies, while delivering the communications agility they need to achieve their goals.

Our Point-to-Point (PTP) 500 Series Wireless Ethernet Bridges are excellent choices when your requirements call for mid-range throughput with carrier-class performance. Operating in the 5.4 and 5.8 GHz bands at Ethernet data rates up to 105 Mbps and distances up to 155 miles (250 km), our PTP 500 systems are designed for virtually any environment: non-line-of-sight (NLOS), long-range line-of-sight (LOS), high interference, water crossings and desert.

Through our unique combination of technologies, PTP 500 Series bridges deliver the throughput, reach, security and reliability that today's businesses and government agencies require for applications such as high-speed wireless backhaul, campus connectivity, leased-line replacement, backbone operations, network redundancy, Voice-over-IP, video surveillance, telemedicine, disaster recovery and emergency services.

SPECIFICATIONS

PRODUCT	
MODEL NUMBER	5.4 GHz: C054050B001 through C054050B008 5.8 GHz: C058050B001 through C058050B008
SPECTRUM	
FREQUENCY RANGE	5.4 GHz: 5470 - 5725 MHz 5.8 GHz: 5725 - 5875 MHz
CHANNEL WIDTH	Configurable to 5, 10 or 15 MHz
CHANNEL SELECTION	Intelligent Dynamic Frequency Selection (i-DFS) or manual intervention; automatic selection on start-up and continual adaptation to avoid interference
INTERFACE	
STANDARD PROTOCOL	IEEE 802.3
DUPLEX SCHEME	5.4 GHz: Symmetric Fixed TDD; same frequency Tx/Rx 5.8 GHz: Symmetric Fixed TDD; same or split frequency Tx/Rx where regulations permit
INSTALLATION	Built-in audo and graphical assistance and voltage output for link optimization; LED indicators for power status, Ethernet link status and activity
ETHERNET INTERFACE	10 / 100 Base T (RJ-45) – auto MDI/MDIX
NETWORK MANAGEMENT	Web GUI or SNMP v1/v2c/v3 using MIBII and a proprietary PTP MIB; Wireless Manager 3.0 or higher
PERFORMANCE	
RANGE	Up to 155 miles (250 km)
MAXIMUM AGGREGATE THROUGHPUT	25 Mbps at the Ethernet (aggregate) Upgradeable to 52 Mbps and 105 Mbps
LATENCY	<3 ms average each direction
ERROR CORRECTION	FEC
QUALITY OF SERVICE	802.1p (2 levels)
MODULATION TYPE	Dynamic; adapting between BPSK and 64 QAM

SPECIFICATIONS

LINK BUDGET	
TRANSMIT POWER	Varies with modulation mode and settings from -18 dBm to 27 dBm
ANTENNA BEAM WIDTH	Integrated: 8° azimuth and elevation Connectorized: Can operate with a selection of separately-purchased single and dual polar antennas (check local regulations prior to purchase)
ANTENNA GAIN	Integrated: 23 dBi Flat Plate Connectorized: N/A
SENSITIVITY (dBm typical)	Adaptive, varying between -94 dBm and -69 dBm
PHYSICAL	
ANTENNA CONNECTION	Integrated: N/A Connectorized: 2 x N-type female connectors
SURGE SUPPRESSION	Lightning protection built into ODU; PTP-LPU (Lightning Protection Unit) still required on building ingress
TEMPERATURE	-40°F to +140°F (-40°C to +60°C), including solar radiation
WEIGHT	Integrated ODU: 11.8 lbs (5.35 kg) including bracket Connectorized ODU: 10.4 lbs (4.7 kg) including bracket PIDU Plus: 1.9 lbs (864 g)
WIND SURVIVAL	202 mph (325 kph)
DIMENSIONS (HxWxD)	Integrated ODU: 37 x 37 x 9.5 cm (14.5" x 14.5" x 3.75") Connectorized ODU: 31 x 31 x 10.5 cm (12.2" x 12.2" x 4.1") Powered Indoor Unit (PIDU Plus): 4 x 25 x 8 cm (1.5" x 9.75" x 3")
MAXIMUM POWER CONSUMPTION	50 W
INPUT VOLTAGE	90 - 240 VAC, 50 - 60 Hz / 36 - 60 VDC; redundant powering configurations supported
SECURITY	
ENCRYPTION	Proprietary scrambling mechanism; optional FIPS- 197 compliant 128/256-bit AES Encryption
CERTIFICATIONS	
FCC ID	5.4 GHz: QWP54500 5.8 GHz: QWP58500
INDUSTRY CANADA CERT	5.4 GHz: 109A0-54500 5.8 GHz: 109A0-58500
CE	5.4 GHz: EN 301 893 5.8 GHz: EN 302 502
PROTECTION AND SAFETY	UL 60950, IEC 60950, EN 60950, CSA-22.2 No. 60950
EMC	CFR 47 Part 15 Class B, CSA Std C108.8 1993 Class B, EN 55022 CISPR 22, EN 301 489-4