

PTP 550E: 1.4 Gbit CAPACITY

Cambium Network is excited to introduce our latest Point to Point Gigabit throughput solution based on 802.11 ac Wave 2 operating in 5 GHz wireless space, addressing the gigabit capacity needs for high speed backhaul solutions in mid range and long range applications. The PTP 550E solution draws its attributes from Cambium Networks' Point to Point products such as PTP 650/670 and PTP 450i

METAL HOUSING

Each PTP 550E radio is enclosed in a rugged IP66/67 rated metal enclosure, which protects the radio from extreme conditions and solar radiation

ANTENNA ALIGNMENT

The “e-alignment” GUI provides the installer with an accurate and reliable way of installing PTP 550E

CHANNEL BONDING

Each channel can have independent channel bandwidth that provides for flexibility in channel selection, band selection and address throughput requirements. Using two 80 MHz channel the PTP 550E achieves 1.4 Gbps.

Dynamic Channel Selection (DCS)

With Dynamic Channel Selection, PTP 550E systems constantly optimize the channel of operation to maximize link reliability and performance. Responding to the radio interference environment, PTP 550E will search for the clearest spectrum and move to it seamlessly. The customer benefits from best available throughput with limited spectrum in the most challenging environments

OTHER KEY FEATURES

- 4.9 to 6.2 GHz
- Up to 1.4 Gbps
- Built in Live Spectrum analyzer
- IPv6/IPv4 dual-stack management support
- AES 128 Encryption
- LINKPlanner Support
- cnMaestro Support
- ARQ Support



PTP 550E CONNECTORIZED



PTP 550E INTEGRATED

RADIO TECHNOLOGY	
MODEL	PTP 550E Connectorized PTP 550E Integrated
RF BANDS	Wide-band operation 4.9 to 6.2 GHz (Allowable frequencies and bands are dictated by individual country regulations)
CHANNEL SIZES	Dual independent channels, each channel configurable as 10, 20, 40 & 80 MHz
SPECTRAL EFFICIENCY	8.5 bps/Hz maximum
CHANNEL SELECTION	Fixed frequency or Dynamic Channel Selection (DCS)
MAXIMUM TRANSMIT POWER	Up to 27 dBm
SYSTEM GAIN	Up to 173 dB with Integrated Antenna
MODULATION	MCS 0 to MCS 9
DUPLEX SCHEME	Time Division Duplex (TDD) Multiple transmit/receive duty cycles
ANTENNA	Integrated Flat panel: 23 dBi Connectorized: Can operate with a selection of separately-purchased single- and dual-polarity antennas through 2 x N-type female connectors
RANGE	Up to 122 miles (200 km)
SECURITY	128-bit AES Encryption Factory mode recovery
ETHERNET BRIDGING	
QUALITY OF SERVICE	3 Level of QoS
LATENCY	4-5 ms one direction
PACKET CLASSIFICATION	Layer 2 and Layer 3 IEEE 802.1p, Ethernet priority, VLAN
MAX PACKET SIZE	1700 Bytes
FLEXIBLE I/O	1 Gigabit Port: Data + PoE power input 1 SFP port (single-mode fiber, multi-mode fiber, and copper Gigabit Ethernet options available)
MANAGEMENT	
NETWORK MANAGEMENT	In-band management and Out Band Management
SYSTEM MANAGEMENT	IPv6/IPv4 dual-stack management support SNMPv2 and SNMPv3, https, WPA-PSK2 Online spectrum analyzer (no impact on payload traffic) cnMaestro supported
INSTALLATION	Built-in e-alignment using GUI on radio to assist in installation

THROUGHPUT TABLE (UDP)

SINGLE CHANNEL		
CHANNEL SIZE		AGGREGATE THROUGHPUT
10 MHz		83 Mbps
20 MHz		166 Mbps
40 MHz		332 Mbps
80 MHz		756 Mbps
DUAL CHANNEL		
CHANNEL A	CHANNEL B	AGGREGATE THROUGHPUT
10 MHz	10 MHz	166 Mbps
10 MHz	20 MHz	249 Mbps
10 MHz	40 MHz	415 Mbps
10 MHz	80 MHz	747 Mbps
20 MHz	20 MHz	333 Mbps
20 MHz	40 MHz	465 Mbps
20 MHz	80 MHz	840 Mbps
40 MHz	40 MHz	650 Mbps
40 MHz	80 MHz	1.025 Gbps
80 MHz	80 MHz	1.4 Gbps

RECEIVER SENSITIVITY

MCS	Payloads	5.8 GHz Band			5.4 GHz Band			5.2 GHz Band			5.1 GHz Band		
		20 MHz	40 MHz	80 MHz	20 MHz	40 MHz	80 MHz	20 MHz	40 MHz	80 MHz	20 MHz	40 MHz	80 MHz
MCS1	Single	-82.0	-79.0	-77.0	-82.0	-79.0	-77.0	-82.0	-79.0	-77.0	-82.0	-79.0	-77.0
MCS2	Single	-80.0	-77.0	-75.0	-80.0	-77.0	-75.0	-81.0	-78.0	-76.0	-80.0	-77.0	-74.0
MCS3	Single	-78.0	-75.0	-73.0	-78.0	-74.5	-72.5	-78.0	-76.0	-74.0	-77.0	-74.0	-72.0
MCS4	Single	-75.0	-73.0	-71.0	-75.5	-73.0	-70.5	-75.0	-73.0	-71.0	-74.0	-72.0	-69.0
MCS5	Single	-72.0	-69.0	-66.0	-71.5	-68.5	-66.0	-71.0	-69.0	-67.0	-71.0	-68.0	-65.0
MCS6	Single	-71.0	-68.0	-65.0	-70.0	-67.5	-65.0	-69.0	-67.0	-65.0	-70.0	-67.0	-64.0
MCS7	Single	-70.0	-67.0	-64.0	-67.5	-64.5	-62.0	-68.0	-65.0	-63.0	-67.0	-65.0	-62.0
MCS8	Single	-65.0	-62.0	-59.0	-64.5	-61.5	-59.0	-64.0	-61.0	-59.0	-64.0	-60.0	-57.0
MCS9	Single	-63.0	-60.0	-57.0	-62.0	-59.0	-56.0	-62.0	-60.0	-57.0	-61.0	-58.0	-55.0
MCS1	Dual	-81.0	-78.0	-76.0	-80.5	-77.5	-75.5	-80.0	-77.0	-74.0	-80.0	-78.0	-75.0
MCS2	Dual	-80.0	-77.0	-74.0	-79.0	-75.5	-73.0	-78.0	-76.0	-72.0	-77.0	-75.0	-72.0
MCS3	Dual	-76.0	-73.0	-70.0	-75.5	-72.5	-70.0	-75.0	-72.0	-68.0	-75.0	-72.0	-70.0
MCS4	Dual	-73.0	-70.0	-68.0	-73.0	-69.5	-67.0	-72.0	-69.0	-65.0	-72.0	-69.0	-66.0
MCS5	Dual	-69.0	-66.0	-64.0	-68.0	-65.0	-63.0	-67.0	-64.0	-61.0	-68.0	-66.0	-63.0
MCS6	Dual	-67.0	-65.0	-62.0	-66.5	-63.5	-61.5	-66.0	-63.0	-60.0	-67.0	-64.0	-60.0

MCS7	Dual	-66.0	-63.0	-59.0	-65.5	-62.5	-59.5	-64.0	-60.0	-57.0	-65.0	-62.0	-58.0
MCS8	Dual	-62.0	-59.0	-55.0	-61.0	-57.5	-54.5	-60.0	-57.0	-53.0	-60.0	-57.0	-54.0
MCS9	Dual	-59.0	-56.0	-52.0	-58.0	-54.5	-51.5	-59.0	-55.0	-51.0	-58.0	-56.0	-53.0

TRANSMIT POWER in dBm

		5.735-5.98 GHz Band			5.54 – 5.71 GHz Band			5.1 - 5.29 GHz Band		
MCS	Payloads	20 MHz	40 MHz	80 MHz	20 MHz	40 MHz	80 MHz	20 MHz	40 MHz	80 MHz
MCS1	Single	25	24	23	25	24	23	26	25	25
MCS2	Single	25	23	23	25	24	23	26	25	25
MCS3	Single	25	23	23	25	23	23	26	25	25
MCS4	Single	25	23	23	25	23	23	26	25	25
MCS5	Single	23	23	23	23	23	23	25	25	25
MCS6	Single	22	22	22	22	22	22	23	23	23
MCS7	Single	21	21	21	21	21	21	22	22	22
MCS8	Single	20	20	20	20	20	20	22	22	22
MCS9	Single	20	20	20	20	20	20	21	21	21
MCS1	Dual	19	19	19	19	19	19	20	20	20
MCS2	Dual	25	23	23	25	24	23	26	25	25
MCS3	Dual	25	23	23	25	23	23	26	25	25
MCS4	Dual	25	23	23	25	23	23	26	25	25
MCS5	Dual	23	23	23	23	23	23	25	25	25
MCS6	Dual	22	22	22	22	22	22	23	23	23
MCS7	Dual	21	21	21	21	21	21	22	22	22
MCS8	Dual	20	20	20	20	20	20	22	22	22
MCS9	Dual	20	20	20	20	20	20	21	21	21

PHYSICAL	
DIMENSIONS	Integrated Outdoor Unit (ODU): Width 305mm (12"), Height 305mm (12"), Depth 68mm (2.2") Connectorized ODU: Width 185mm (7"), Height 278mm (11"), Depth 88mm (3.5")
WEIGHT	Integrated ODU: 2.2 kg (4.85 lbs) including bracket Connectorized ODU: 1.6 kg (3.5 lbs) including bracket

OPERATING TEMPERATURE	-40° F to +140° F (-40° C to +60° C), including solar radiation
DUST- WATER INTRUSION PROTECTION	IP66 and IP67
WIND SPEED SURVIVAL	200 mph (322 kmph)
POWER SUPPLY	AC power injector: 32° to 104° F (0° to +40° C); 30 W , 56V Dimensions: Width 5.2”(132mm), Height 1.4”(36mm), Depth 2”(51mm)
POWER CONSUMPTION	30 W maximum

ENVIRONMENTAL & REGULATORY	
PROTECTION AND SAFETY	UL60950-1/22; IEC60950-1/22; EN60950-1.22; CSA-C22.2 No. 60950-1/22; CB approval with all National Deviations
RADIO	EN 302 502; EN 301 893
EMC	Europe – EN 301 489-1 and -17