

## 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 (entire frequency range)
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 26 dBm
SYSTEM GAIN	Up to 173 dB with Integrated Antenna
MODULATION	MCS 0 to MCS 9 (256 QAM)
DUPLEX SCHEME	Time Division Duplex (TDD) Multiple transmit/receive duty cycles
ANTENNA	Integrated Flat panel: 23 dBi Connectorized: Single- and dual-polarity antennas through 2 x N-type connectors
RANGE	Up to 122 miles (200 km)
UL/DL Ratio supported	50:50 , 70:30 and 75:25
SECURITY	128-bit AES Encryption Factory mode recovery
ETHERNET BRIDGING	
LATENCY	4-5 ms one direction
PACKET CLASSIFICATION	Layer 2 and Layer 3 IEEE 802.1p, Ethernet priority,VLAN
QUALITY OF SERVICE	3 Level of QoS
MAX PACKET SIZE	1700 Bytes
TDD Sync	Supports CMM5 and cnPulse
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		725 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	332 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**

Frequency Band Bandwidth (MHz)	4.9 GHz				5.1 GHz				5.2 GHz				5.4 GHz				5.8 – 6.2 GHz			
	10	20	40	80	10	20	40	80	10	20	40	80	10	20	40	80	10	20	40	80
MCS1	-92.0	-90.0	-87.0	-84.0	-91.0	-89.0	-87.0	-84.0	-91.0	-88.0	-86.0	-84.0	-92.0	-89.5	-86.5	-84.0	-91.0	-88.0	-85.0	-83.0
MCS2	-90.0	-88.0	-85.0	-82.0	-89.0	-87.0	-85.0	-83.0	-90.0	-87.0	-84.0	-82.0	-89.5	-87.0	-84.5	-81.9	-89.0	-86.0	-83.0	-81.0
MCS3	-87.0	-85.0	-82.0	-79.0	-86.0	-84.0	-81.0	-78.0	-86.0	-83.0	-81.0	-79.0	-87.0	-84.5	-82.5	-80.5	-86.0	-83.0	-81.0	-79.0
MCS4	-85.0	-83.0	-80.0	-77.0	-84.0	-82.0	-79.0	-76.0	-84.0	-81.0	-78.0	-76.0	-84.0	-81.5	-78.9	-76.2	-83.0	-81.0	-79.0	-77.0
MCS5	-80.0	-78.0	-75.0	-72.0	-80.0	-78.0	-75.0	-73.0	-80.0	-77.0	-74.0	-72.0	-79.5	-77.5	-75.0	-72.5	-80.0	-77.0	-74.0	-72.0
MCS6	-79.0	-77.0	-74.0	-71.0	-78.0	-76.0	-73.0	-70.0	-78.0	-75.0	-73.0	-71.0	-78.5	-76.0	-73.5	-70.9	-78.0	-75.0	-73.0	-71.0
MCS7	-77.0	-75.0	-72.0	-69.0	-77.0	-75.0	-72.0	-69.0	-77.0	-74.0	-72.0	-70.0	-77.0	-74.5	-71.9	-69.2	-76.0	-73.0	-71.0	-69.0
MCS8	-73.0	-71.0	-68.0	-65.0	-73.0	-70.0	-67.0	-65.0	-72.0	-69.0	-67.0	-65.0	-72.5	-70.5	-67.9	-65.2	-72.0	-69.0	-67.0	-65.0
MCS9	-71.0	-69.0	-66.0	-63.0	-71.0	-68.0	-65.0	-63.0	-70.0	-67.0	-65.0	-63.0	-70.5	-68.5	-66.5	-63.9	-70.0	-67.0	-65.0	-63.0

**TRANSMIT POWER in dBm**

		4.9 - 5150 GHz Band				5.150- 5250 GHz Band				5.250-5.350 GHz Band				5.350-5.725 GHz Band				5.725-5.9 GHz Band				6.0-6.2 GHz Band			
MCS	Payloads	10 MHz	20 MHz	40 MHz	80 MHz	10 MHz	20 MHz	40 MHz	80 MHz	10 MHz	20 MHz	40 MHz	80 MHz	10 MHz	20 MHz	40 MHz	80 MHz	10 MHz	20 MHz	40 MHz	80 MHz	10 MHz	20 MHz	40 MHz	80 MHz
MCS 1	Single	26	26	25	25	26	26	25	25	26	26	25	25	25	25	24	23	25	25	23	23	25	25	23	23
MCS 2	Single	26	26	25	25	26	26	25	25	26	26	25	25	25	25	23	23	25	25	23	23	25	25	23	23
MCS 3	Single	26	26	25	25	26	26	25	25	26	26	25	25	25	25	23	23	25	25	23	23	25	25	23	23
MCS 4	Single	25	25	25	25	25	25	25	25	25	25	25	25	23	23	23	23	23	23	23	23	23	23	23	23
MCS 5	Single	23	23	23	23	23	23	23	23	23	23	23	23	22	22	22	22	22	22	22	22	22	22	22	22
MCS 6	Single	22	22	22	22	22	22	22	22	22	22	22	22	21	21	21	21	21	21	21	21	21	21	21	21
MCS 7	Single	22	22	22	22	22	22	22	22	22	22	22	22	20	20	20	20	20	20	20	20	20	20	20	20
MCS 8	Single	21	21	21	21	21	21	21	21	21	21	21	21	20	20	20	20	20	20	20	20	20	20	20	20
MCS 9	Single	20	20	20	20	20	20	20	20	20	20	20	20	19	19	19	19	19	19	19	19	19	19	19	19
MCS 1	Dual	26	26	25	25	26	26	25	25	26	26	25	25	25	25	24	23	25	25	23	23	25	25	23	23
MCS 2	Dual	26	26	25	25	26	26	25	25	26	26	25	25	25	25	23	23	25	25	23	23	25	25	23	23
MCS 3	Dual	26	26	25	25	26	26	25	25	26	26	25	25	25	25	23	23	25	25	23	23	25	25	23	23
MCS 4	Dual	25	25	25	25	25	25	25	25	25	25	25	25	23	23	23	23	23	23	23	23	23	23	23	23
MCS 5	Dual	23	23	23	23	23	23	23	23	23	23	23	23	22	22	22	22	22	22	22	22	22	22	22	22
MCS 6	Dual	22	22	22	22	22	22	22	22	22	22	22	22	21	21	21	21	21	21	21	21	21	21	21	21
MCS 7	Dual	22	22	22	22	22	22	22	22	22	22	22	22	20	20	20	20	20	20	20	20	20	20	20	20
MCS 8	Dual	21	21	21	21	21	21	21	21	21	21	21	21	20	20	20	20	20	20	20	20	20	20	20	20
MCS 9	Dual	20	20	20	20	20	20	20	20	20	20	20	20	19	19	19	19	19	19	19	19	19	19	19	19

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 (Typical 22 W)
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