PTP 450i

Cambium Networks industry-leading 450 platform includes the all new PMP 450i and PTP 450i radios. The 450i product platform is the most scalable industrial-grade wireless broadband solution available.

Key Features:

• An **ultra-wide band** radio supports 4900 MHz to 5925 MHz with dynamic interference filtering, improved transmit power and better receive sensitivity.

• **Rugged metal enclosure** designed to meet IP-66 and IP-67 standards to withstand harsh environments. Optional ATEX/HAXLOC certified models available for hazardous deployments.

• **Dynamic Interference Filtering** to provide industry leading noise isolation for improved performance

• Updated FPGA and SoC architecture **triples the processing power** compared to PMP 450

• **Multifunction AUX port** allows for greater flexibility for deployment by adding a camera or other PoE directly.

PRODUCT

			RoW	US	EU	DES only
Model Numbers	5 GHz	Connectorized	C050045B001A	C050045B003A	C050045B005A	C050045B007A
	5 GHz	Integrated	C050045B002A	C050045B004A	C050045B006A	C050045B008A

SPECTRUM

Channel Spacing	Configurable on 2.5 MHz increments
Frequency Range	4900 - 5925 MHz
Channel Width	5 MHz, 10 MHz or 20 MHz

INTERFACE

MAC (Media Access Control) Layer	Cambium Networks proprietary
Physical Layer	2x2 MIMO OFDM
Ethernet Interface	100/1000BaseT, full duplex, rate auto negotiated (802.3 compliant)
Protocols Used	IPv4, UDP, TCP, IP, ICMP, Telnet, SNMP, HTTP, FTP
Network Management	HTTP, HTTPS, Telnet, FTP, SNMP v3
VLAN	802.1ad (DVLAN Q-inQ), 802.1Q with 802.1p priority, dynamic port VID

Specifications

PERFORMANCE

Capacity	Up to 132 Mbps usable throughput in 20 MHz channels	
Modulation Levels (Adaptive)	MCS	Signal to Noise Required (SNR, in dB)
2X	QPSK	10
4X	16QAM	17
6X	64QAM	24
8X	256QAM	32
Maximum Deployment Range	Up to 58 to 400 miles minimum, depending on configuration	
Latency	3 - 5 ms, typical	
GPS Synchronization	Yes, via Autosync (CMM3, CMM4)	
Quality of Service	Diffserve QoS	

LINK BUDGET

Antenna Beam Width	10° azimuth for 23 dBi integrated antenna
Antenna Gain	+23 dBi H+V, integrated or external
Transmit Power Range	40 dB dynamic range (to EIRP limit by region) (1 dB step)
Maximum Transmit Power	+27 dBm combined output

PHYSICAL

Antenna Connection	50 ohm, N-Type (Connectorized version only)	
Surge Suppression	EN61000-4-5: 1.2us/50us, 500 V voltage waveform Recommended external surge suppressor: Cambium Networks Model # C000000L033A	
Mean Time Between Failure	> 40 Years	
Environmental	IP66, IP67	
Temperature / Humidity	-40°C to +60°C (-40°F to +140°F), 0-95% non-condensing	
Weight	Connectorized	Approx. 2.0 kg (4.5 lbs)
	Integrated	Approx. 2.5 kg (5.5 lbs)
Wind Survival	190 km/hour (118 mi/hour)	
Dimensions (HxWxD)	Connectorized	26.0 x 13.4 x 6.4 cm (10.25" x 5.25" x 3.25")
	Integrated	31.0 x 31.0 x 6.4 cm (12" x 12" x 2.5")
Power Consumption	15 W typical, 25 W max, 55 W max with Aux port PoE out enable	
Input Voltage	48-59 V DC, 802.3at compliant	
Mounting	Wall or Pole mount with Cambium Networks Model # N000045L002A	

SECURITY

Encryption	56-bit DES, FIPS-197 128-bit AES

CERTIFICATIONS

Industry Canada	TBD (4.9, 5.4, 5.8 GHz)
FCC ID	TBD (4.9, 5.4, 5.8 GHz)
CE	EN 301 893 v1.7.1 (5.4 GHz)
	EN 302 625 v1.1.1 (Broadband Disaster Relief, 4.9 GHz, 5.1 GHz)
	EN 302 502 v1.2.1 (5.8 GHz)