ePMP Force 4525L Subscriber Module

ePMP 4525L Quick Look

- High-performance for PTP and PMP fixed wireless broadband applications
- Gbps capacity leveraging 80 MHz channels
- Compatible with ePMP 4500 Series APs for MU-MIMO performance
- 3-year hardware warranty



Service providers face ever-increasing demand for capacity in a limited amount of spectrum. The ePMP™ Force 4525L Subscriber Modules (SM) meet this demand by offering high performance and low latency across both point-to-multipoint (PMP) and point-to-point (PTP) deployments.

Force 4525L SM Differentiating Features:

- High capacity and latencies less than 5 ms when using ePTP technology
- Interoperability with the ePMP 4500, which uses MU-MIMO to achieve up to 4 Gbps per sector by transmitting to four ePMP 4500 SMs simultaneously
- 1024QAM and an integrated 25 dBi dish antenna
- Multiple levels of QoS (Quality of Service) for voice, video, and data applications, supporting a wide variety of service packages for both residential and enterprise users
- Security features meeting the requirements of enterprise, industry, government, and service provider users
- Management by Cambium Networks cnMaestro™ Network Management System for easy provisioning, monitoring, and upgrades
- Network planning with LINKPlanner and cnHeat
- Cambium Networks' 3-year hardware warranty and support
- Power over Ethernet (PoE) injector and pole-mount hardware included

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Spectrum

Channel Width MHz	20 I 40 I 80 MHz
Proprietary Physical Layer	2x2 MIMO/OFDMA
Channel Spacing	Configurable in 5 MHz increments
Frequency Range*	Wide band operation 5150–5920 MHz
MAC Layer (Media Access Control)	Cambium proprietary
Ethernet Interface	100/1000 BaseT, compatible with Cambium PoE & standard PoE pinouts
Protocols Used	IPv4/IPv6 (Dual Stack), UDP, TCP, ICMP, SNMPv2c, NTP, STP, IGMP, SSH
Network Management	IPv4/IPv6, HTTPs, SNMPv2c, SSH, cnMaestro
VLAN	802.1Q with 802.1p priority

* Allowable frequencies and bands are dictated by individual country regulations.

Performance

ARQ	Yes
Nominal Receive Sensitivity (w/FEC) @20 MHz Channel	MCS 0 = -91 dBm to MCS 11 (1024 QAM-5/6) = -59 dBm (per chain)
Nominal Receive Sensitivity (w/FEC) @40 MHz Channel	MCS 0 = -88 dBm to MCS 11 (1024 QAM-5/6) = -56 dBm (per chain)
Nominal Receive Sensitivity (w/FEC) @80 MHz Channel	MCS 0 = -85 dBm to MCS 11 (1024 QAM-5/6) = -53 dBm (per chain)
Modulation Levels (Adaptive)	MCS 0 (BPSK) to MCS 11 (1024 QAM-5/6)
Transmit Power Range	+3 to +28 dBm (combined, to regional EIRP limit) (1 dB interval)
QoS (Quality of Service)	Three level priority (voice, high, low) with packet classification by DSCP, COS, VLAN ID, IP & MAC address, broadcast, multicast and station priority, MIR/CIR* support

Physical

Surge Suppression	1 joule integrated
Environmental	IP55
Temperature	-30°C to 55°C (-22°F to 131°F)
Weight	1.88Kg (4.14 lb)
Wind Survival	200 km/hr (124 mi/hr)
Dimensions (Dia x Depth)	472 x 472 x 281 mm (18.5 x 18.5 x 11.0 in)
Pole Diameter Range	Center: 3.1 to 7.6 cm (1.25 to 3.0 in)
Power Consumption	13W
Input Voltage	Passive PoE 13–30V

Certifications

FCCID	N/A
FCC Regulatory Part #	N/A
ETSI Regulatory Part #	C050940P051A
Industry Canada Cert	N/A
CE	See Cambium website for Declaration of Conformity

Dish

Gain	25 dBi
3dB Beamwidth	7°
Front/Back Ratio	29 dB
Port-Port Isolation	>20dB

Security

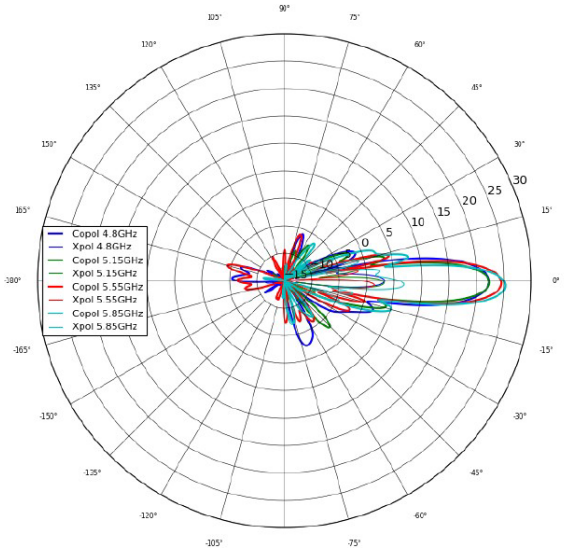
Encryption	128-bit AES (CCMP mode), 256-bit AES optional, where allowed

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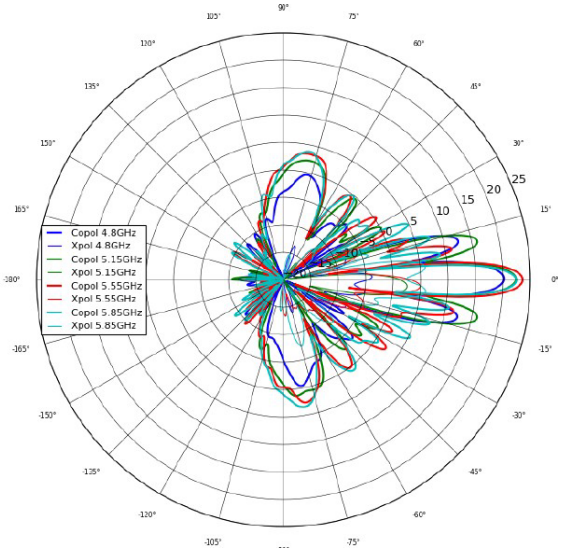
ePMP Force 4525L Subscriber Module

Force 4525 Antenna Patterns

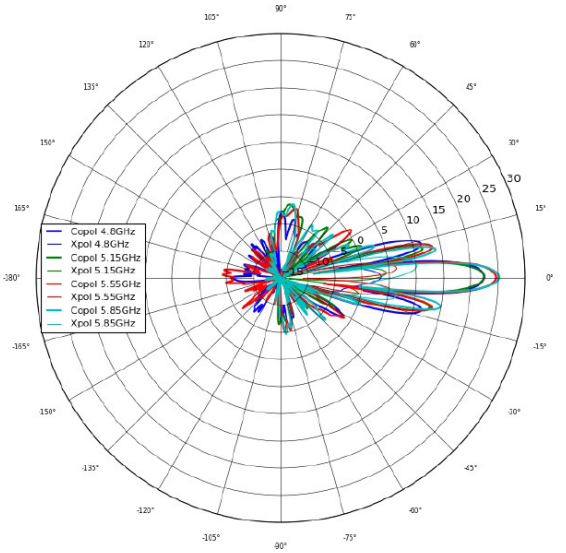
Azimuth Horizontal



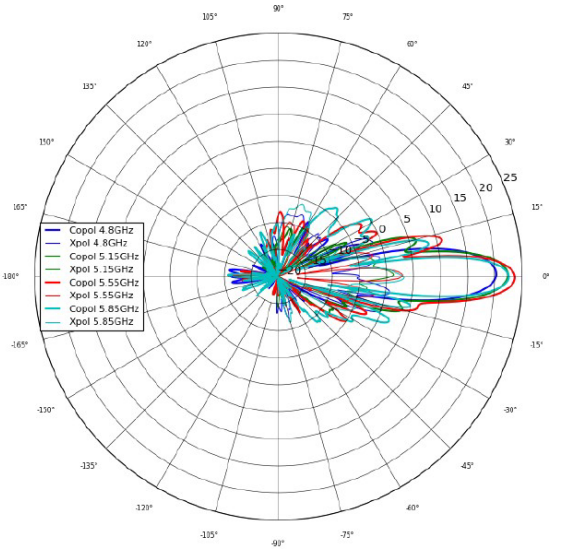
Azimuth Vertical



Elevation Horizontal

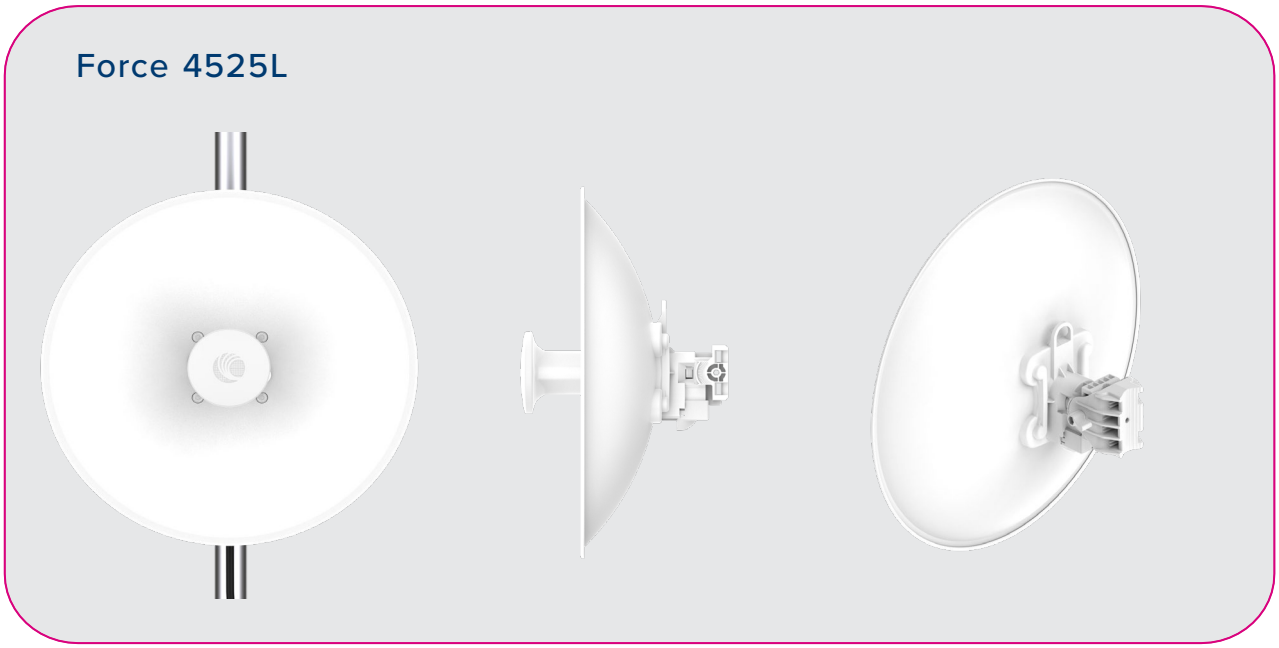


Elevation Vertical



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ePMP Force 4525L Subscriber Module



Ordering Information

C050940M051A	ePMP 5 GHz Force 4525L SM Bulk packaging (ROW) (no cord)
C050940M151A	ePMP 5 GHz Force 4525L SM Bulk packaging (ROW) (US cord)
C050940M251A	ePMP 5 GHz Force 4525L SM Bulk packaging (ROW) (EU cord)
C050940M253A	ePMP 5 GHz Force 4525L SM Bulk packaging (EU) (EU cord)
C050940M351A	ePMP 5 GHz Force 4525L SM Bulk packaging (ROW) (UK cord)
C050940M353A	ePMP 5 GHz Force 4525L SM Bulk packaging (EU) (UK cord)
C050940M451A	ePMP 5 GHz Force 4525L SM Bulk packaging (ROW) (India cord)
C050940M455A	ePMP 5 GHz Force 4525L SM Bulk packaging (India) (India Cord)
C050940M551A	ePMP 5 GHz Force 4525L SM Bulk packaging(ROW) (China cord)
C050940M651A	ePMP 5 GHz Force 4525L SM Bulk packaging (ROW) (Brazil cord)
C050940M751A	ePMP 5 GHz Force 4525L SM Bulk packaging (ROW) (Argentina cord)
C050940M851A	ePMP 5 GHz Force 4525L SM Bulk packaging (ROW) (ANZ cord)
C050940M951A	ePMP 5 GHz Force 4525L SM Bulk packaging (ROW) (South Africa cord)
C050940MZ51A	ePMP 5 GHz Force 4525L SM Bulk packaging (ROW) (No PSU)
C050940M256A	ePMP 5 GHz Force 4525L SM Bulk packaging (Indonesia) (EU Cord)

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Cambium Networks enables service providers, enterprises, industrial organizations, and governments to deliver exceptional digital experiences and device connectivity with compelling economics. Our ONE Network platform simplifies management of Cambium Networks' wired and wireless broadband and network edge technologies. Our customers can focus more resources on managing their business rather than the network. We make connectivity that just works.

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