

# ePMP Force 4525 Subscriber Module

## ePMP 4525 Quick Look

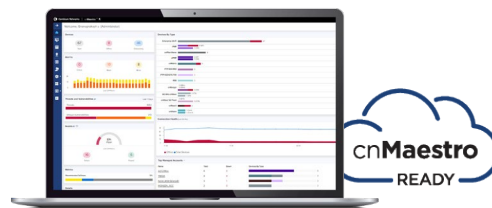
- High-performance for PTP and PMP fixed wireless broadband applications
- Gbps capacity leveraging 80 MHz channels
- Compatible with ePMP 4500 Series Aps for MU-MIMO performance
- 3-year hardware warranty



Service providers face ever-increasing demand for capacity in a limited amount of spectrum. The ePMP™ Force 4525 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 4525 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
- Three-year hardware warranty and support from Cambium Networks.
- Each SM comes with a Power over Ethernet (PoE) injector and pole mount hardware.

## ePMP Force 4525 Subscriber Module

Spectrum	
Channel Width MHz	20   40   80 MHz
Proprietary Physical Layer	2x2 MIMO/OFDMA
Channel Spacing	Configurable in 5 MHz increments
Frequency Range*	Wide band operation 5150–5920 MHz  Operation under AFC (automatic frequency coordination) control in FCC jurisdictions.
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

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

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

Physical	
Surge Suppression	1 joule integrated
Environmental	IP55
Temperature	-40°C to 55°C (-40°F to 131°F)
Weight	2.76 Kg (6.1 lb)
Wind Survival	200 km/hr (124 mi/hr)
Dimensions (Dia x Depth)	472 x 472 x 296 mm (18.5 x 18.5 x 11.7 in)
Pole Diameter Range	Center: 3.1 to 7.6 cm (1.25 to 3.0 in)
Power Consumption	13W (Up to 15W in extreme cold temperatures when heater is activated)
Input Voltage	Passive PoE 27–59V

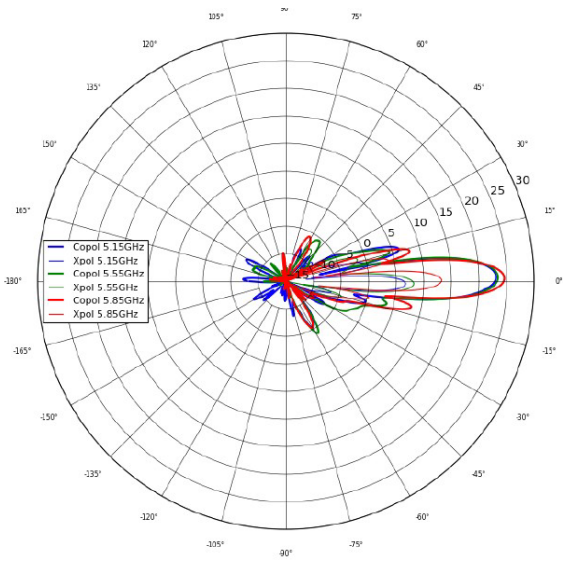
Certifications	
FCCID	Z8H89FT0074
FCC Regulatory Part #	C058940P142A
ETSI Regulatory Part #	N/A
Industry Canada Cert	109W-0074
CE	See Cambium website for Declaration of Conformity
FCCID	Z8H89FT0074

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

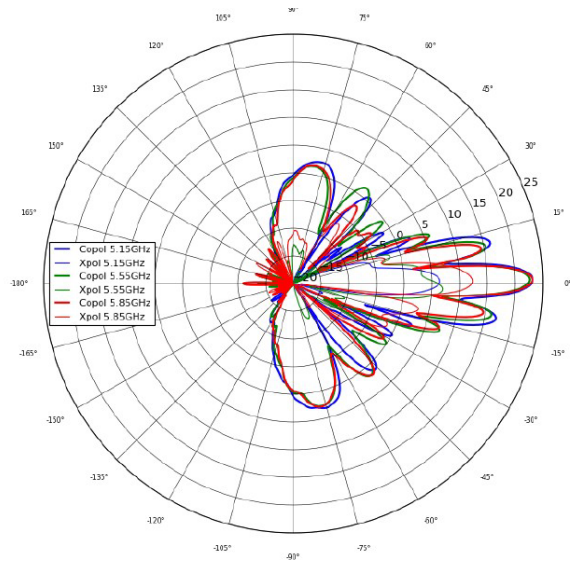
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## Force 4525 Antenna Patterns

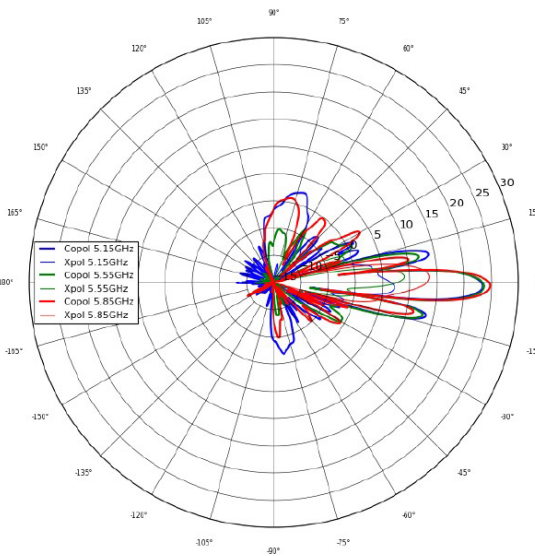
Azimuth Horizontal



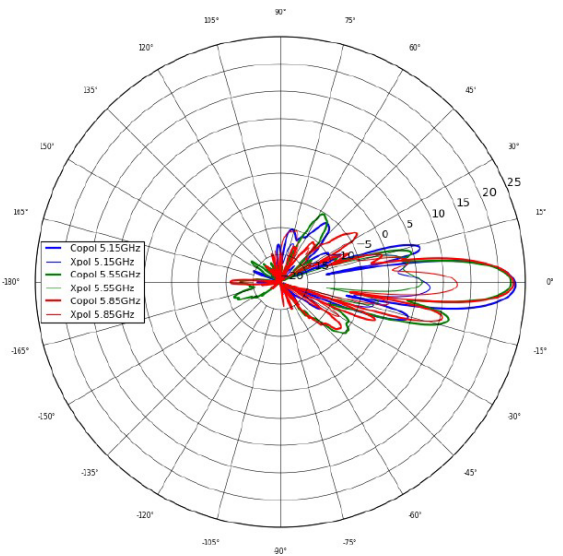
Azimuth Vertical



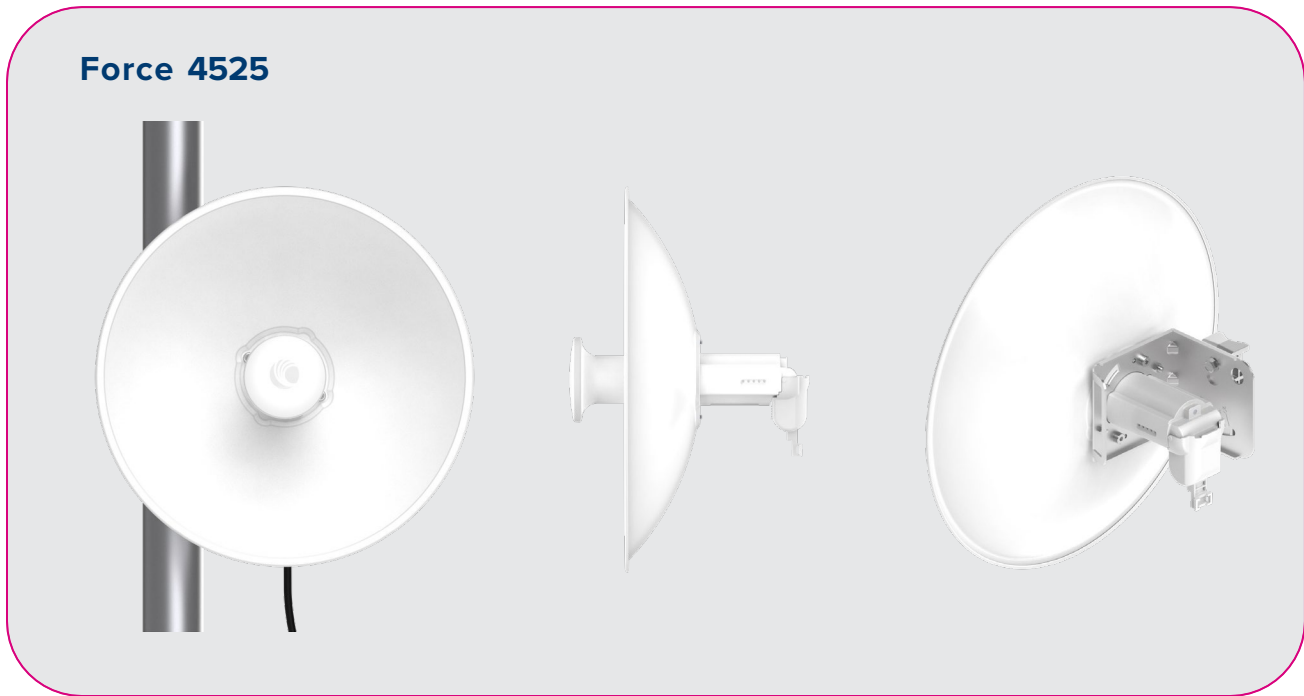
Elevation Horizontal



Elevation Vertical



## ePMP Force 4525 Subscriber Module



### Ordering Information

C058940M142A	ePMP 5 GHz Force 4525 SM Bulk packaging (FCC) (US cord)
C058940M144A	ePMP 5 GHz Force 4525 SM Bulk packaging (IC) (Canada/US cord)

### ABOUT CAMBIUM NETWORKS

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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