

ePMP™ Force 300



Wireless service providers and enterprises around the globe are challenged to deliver reliable connectivity in overcrowded RF environment. As spectrum increasingly becomes a scarce commodity, finding the right broadband connectivity solution is vital for all low and high density types of deployments.

Cambium Networks resolves this challenge with a breakthrough technology solution that delivers superior performance, resiliency and reach in the most congested environments. Combining the latest 802.11AC Wave 2 chipset and the field proven TDD MAC of ePMP, the Force 300-25 offers a compelling yet affordable point to point product and a future high gain subscriber module for the ePMP3000 Access Point.

Force 300-25 continues the tradition of previous products with an integrated 25dBi dish with a narrow beamwidth and reliable mechanics. Supporting peak throughput greater than 500Mbps, the Force300-25 also supports an always on spectrum analyzer and local WiFi management to take advantage of mobile installation applications.

FEATURES:

- Cambium Networks' ePMP Force 300-25 is designed to operate in high interference environments and provides superior throughput of over 500 Mbps of real user data.
- The ePMP Force 300-25 supports channel size configuration from 20MHz up to 80MHz and modulates up to 256 QAM.
- The Force 300-25 supports a local Wi-Fi connection to allow easy installation, configuration, and monitoring from any Wi-Fi enabled device.
- The ePMP Force 300-25 supports constant monitoring of the radio spectrum and allows for live action without bringing down the radio.
- Configurable modes of operation ensure robust adaptivity to both symmetrical and asymmetrical traffic while providing high performance and round-trip latency as low as 3-5 ms.
- QoS management offers an outstanding quality for triple play services - VoIP, video, and data - and provides three levels of traffic priority.
- Long deployment range is enabled by a high gain antenna combined with 27dBm of transmit power.
- This platform is for the user base that wants a smaller on premises footprint while enabling high gain.
- Install is a breeze with the easy to install mount, capable of pole and wall mounting.

SPECIFICATIONS

SPECTRUM

Channel Spacing	Configurable in 5 MHz increments
Frequency Range	Wide Band Operation 5.150 – 5.970 MHz (Note: Allowable frequencies and bands are dictated by individual country regulations.) Channel Width
Channel Width	20 40 80 MHz

SPECIFICATIONS

INTERFACE

MAC (Media Access Control) Layer	Cambium
Proprietary Physical Layer	2x2 MIMO/OFDM
Ethernet Interfaced	10/100/1000 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, Cambium Networks CnMaestro™
VLAN	802.1Q with 802.1p priority

PERFORMANCE

ARQ	Yes
Nominal Receive Sensitivity (w/FEC) @20 MHz Channel	MCS0 = -87 dBm to MCS8 (256 QAM-3/4) = -63 dBm (per chain)
Nominal Receive Sensitivity (w/FEC) @40 MHz Channel	MCS0 = -85 dBm to MCS9 (256QAM-5/6) = -59 dBm (per chain)
Nominal Receive Sensitivity (w/FEC) @80 MHz Channel	MCS0 = -82 dBm to MCS9 (256QAM-5/6) = -56 dBm (per chain)
Modulation Levels (Adaptive)	MCS0(BPSK)to MCS9 (256QAM5/6)
Transmit Power Range	0 to +27 dBm (combined, to regional EIRP limit) (1 dB interval)

PHYSICAL

Surge Suppression	1 Joule Integrated
Environmental	IP55
Temperature	-22°F to +140°F (-30°C to +60°C)
Weight	2.4 kg (5.3 lbs)
Wind Survival	180 km/hour (112 mi/hour)
Dimensions (Dia x Depth)	47 cm x 31 cm (18.5 in x 12.2 in)
Pole Diameter Range	6.4 cm – 7.6 cm (2.5 in – 3 in)
Power Consumption	12 Watts
Input Voltage	30 Volts

SECURITY

Encryption	128-bit AES (CCMP mode)
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CERTIFICATIONS

FCCID	TBD
Industry Canada Cert	TBD
CE	TBD

PART NUMBER

DESCRIPTION

C058910C102A	ePMP Force 300-25 5 GHz High Gain Radio (FCC) (US Cord)
C050910C104A	ePMP Force 300-25 5 GHz High Gain Radio (IC) (Canada/US Cord)
C050910C203A	ePMP Force 300-25 5 GHz High Gain Radio (EU) (EU Cord)
C050910C303A	ePMP Force 300-25 5 GHz High Gain Radio (EU) (UK Cord)
C050910C001A	ePMP Force 300-25 5 GHz High Gain Radio (RoW) (no Cord)
C050910C101A	ePMP Force 300-25 5 GHz High Gain Radio (RoW) (US Cord)
C050910C201A	ePMP Force 300-25 5 GHz High Gain Radio (RoW) (EU Cord)
C050910C301A	ePMP Force 300-25 5 GHz High Gain Radio (RoW) (UK Cord)
C050910C401A	ePMP Force 300-25 5 GHz High Gain Radio (RoW) (India Cord)
C050910C501A	ePMP Force 300-25 5 GHz High Gain Radio (RoW) (China Cord)
C050910C601A	ePMP Force 300-25 5 GHz High Gain Radio (RoW) (Brazil Cord)

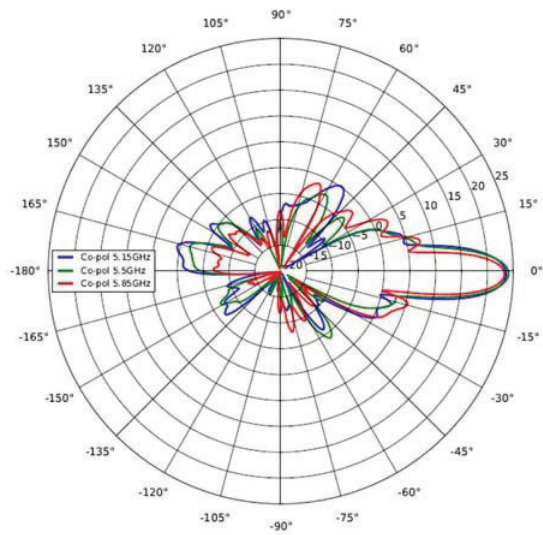
SPECIFICATIONS

PART NUMBER	DESCRIPTION
C050910C701A	ePMP Force 300-25 5 GHz High Gain Radio (RoW) (Argentina Cord)
C050910C801A	ePMP Force 300-25 5 GHz High Gain Radio (RoW) (ANZ Cord)
C050910C901A	ePMP Force 300-25 5 GHz High Gain Radio (RoW) (South Africa Cord)
C050910CZ01A	ePMP Force 300-25 5 GHz High Gain Radio (RoW) (No PSU)

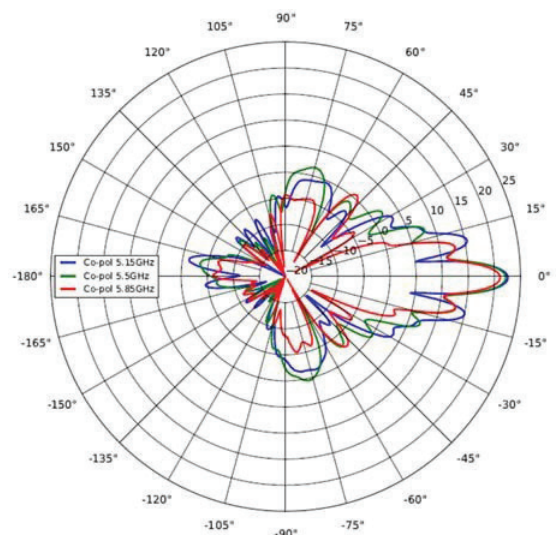
ANTENNA SPECIFICATIONS	5 GHZ SPECIFICATION
Frequency Range	5.150 – 5.970 MHz
Antenna Type	Dish
Peak Gain	25 dBi
3dB Beamwidth-Azimuth	6-10 degrees
3dB Beamwidth-Elevation	6-10 degrees
Front-To-Back Isolation	25 dB
Cross Polarization	20 dB

ANTENNA PATTERNS

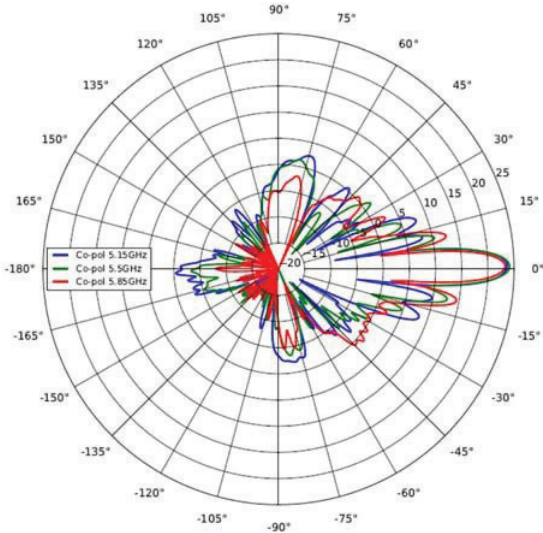
Azimuth, Horizontal



Azimuth, Vertical



Elevation, Horizontal



Elevation, Vertical

