Camblum Networks™

ePMP™ Force 300-25



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.

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	20 | 40 | 80 MHz

SPECIFICATIONS (Continued)

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	IPv6/IPv4 Management, UDP, TCP, IP, ICMP, SNMPv2c, HTTPs, STP, SSH, IGMP Snooping
Network Management	HTTPs, SNMPv2c, SSH
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 (256QAM 5/6)
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)

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)

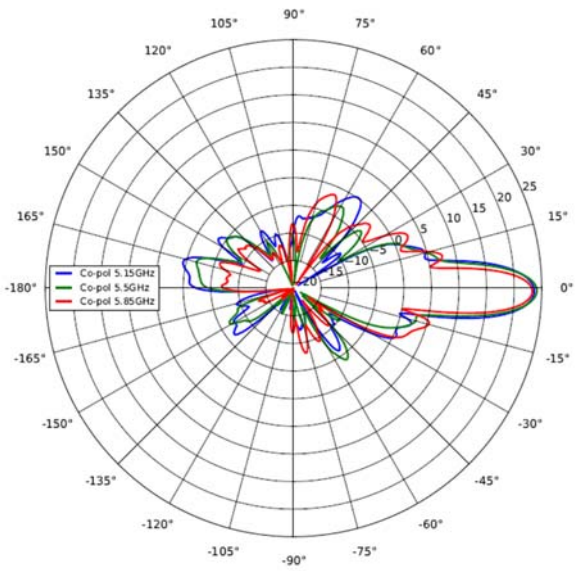
PART NUMBER	DESCRIPTION
C050910C701A	ePMP Force 300-25 5 GHz High Gain Radio (RoW) (Argentina Cord)
C050910C801A	ePMP Force 300-25 5 GHz High Gain Radio (RoW) (ANZ Cord)
C050910C901A	ePMP Force 300-25 5 GHz High Gain Radio (RoW) (South Africa Cord)
C050910CZ01A	ePMP Force 300-25 5 GHz High Gain Radio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

SPECIFICATIONS

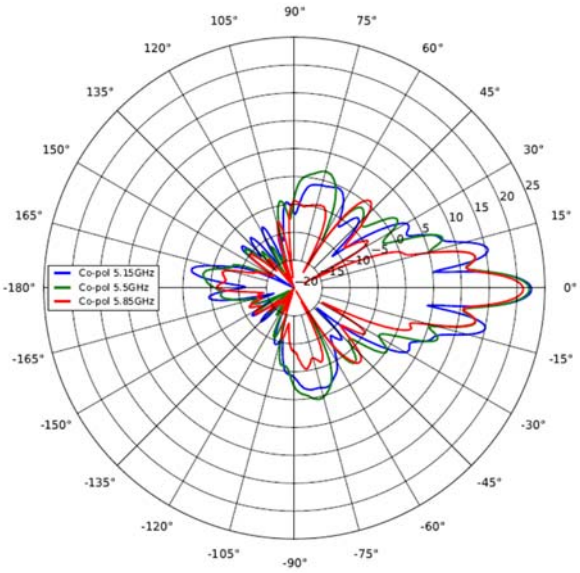
ANTENNA SPECIFICATIONS	5 GHZ SPECIFICATION
Frequency Range	5.150 – 5.970 MHz
Antenna Type	Dish
Peak Gain	25 dBi
3dB Beamwidth-Azimuth	6-10 degrees
3dB Beamwidth-Elevation	6-10 degrees
Front-To-Back Isolation	25 dB
Cross Polarization	20 dB

ANTENNA PATTERNS

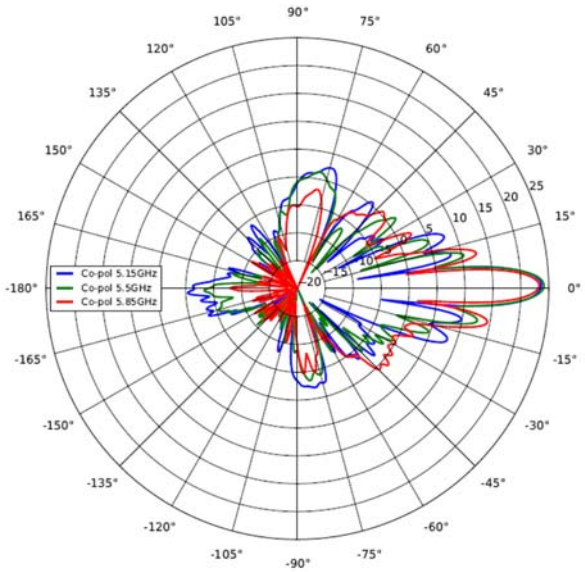
Azimuth, Horizontal



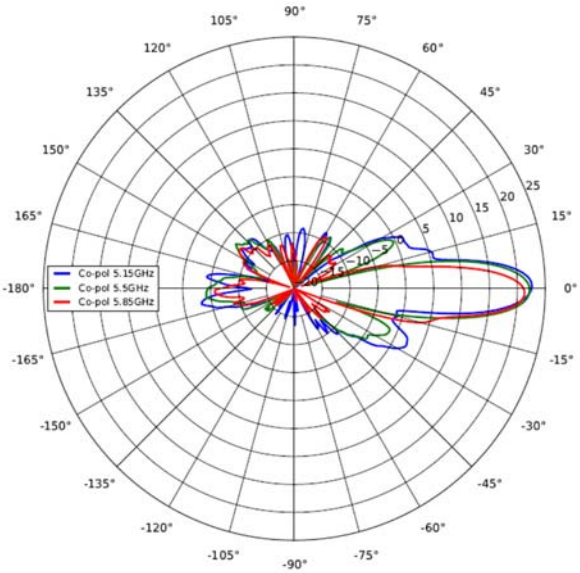
Azimuth, Vertical



Elevation, Horizontal



Elevation, Vertical



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