

ePMP 6 GHz Force 4616 Series Subscriber Module

ePMP 4616 SM QUICK LOOK:

- High-performance subscriber modules for PTP and PMP fixed wireless broadband applications
- Up to Gbps capacity leveraging 160 MHz channels
- Interoperates in PMP applications with ePMP 4600 APs



High Performance, Low Latency

Service providers face ever-increasing demand for capacity in a limited amount of spectrum.

Cambium Networks ePMP™ Force 4616 Subscriber Modules (SM) meet this demand offering high performance and low latency across both point-to-multipoint (PMP) and point-to-point (PTP) deployments.

The Force 4616 SM is offered with a 16 dBi integrated panel antenna.

Features

- Offers high capacity and latencies of less than 5 ms when using ePTP technology
- Interoperable with ePMP 4600 Series Access Points (AP)
- Provides up to Gbps capacity in PTP applications, meeting the requirements of enterprise, industrial, government, and service provider users
- Managed by Cambium Networks cnMaestro™ Network Management System for easy provisioning, monitoring, and upgrades
- Network planning with LINKPlanner and cnHeat
- Includes a power over Ethernet (PoE) injector and pole mount hardware

Force 4616 Subscriber Module

Spectrum

Channel Width MHz	20 40 80 160 MHz
Proprietary Physical Layer	ePMP air interface with 2x2 MIMO/OFDMA
Channel Spacing	Configurable in 5 MHz increments
Frequency Range	Force 4616: 5925–7125 MHz*
MAC Layer (Media Access Control)	Cambium proprietary
Ethernet Interface	100/1000 BaseT, rate auto negotiated
Protocols Used	IPv4/IPv6, UDP, TCP, IP, ICMP, SNMPv2c, HTTPs, STP, SSH, IGMP snooping
Network Management	HTTP/HTTPS, SNMPv1/2, SNMPv3, SSH
VLAN	802.1Q with 802.1p priority

*Allowable frequencies and bands are dictated by individual country regulations. Operation under AFC (Automatic Frequency Coordination) control in FCC and Canada jurisdictions. See specific rules in other countries.

Performance

ARQ	Yes
Nominal Receive Sensitivity (w/FEC) @20 MHz Channel	MCS 0 = -92 dBm to MCS 11 (1024 QAM-5/6) = -61 dBm (per chain)
Nominal Receive Sensitivity (w/FEC) @40 MHz Channel	MCS 0 = -89 dBm to MCS 11 (1024 QAM-5/6) = -58 dBm (per chain)
Nominal Receive Sensitivity (w/FEC) @80 MHz Channel	MCS 0 = -86 dBm to MCS 11 (1024 QAM-5/6) = -55 dBm (per chain)
Nominal Receive Sensitivity (w/FEC) @160 MHz Channel	MCS 0 = -86 dBm to MCS 11 (1024 QAM-5/6) = -51 dBm (per chain)
Modulation Levels (Adaptive)	MCS 0 (BPSK) to MCS 11 (1024 QAM-5/6)
Geolocation	Built-in or external USB GPS receiver (optional) (see product descriptions below for devices with GPS)
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

Physical

Surge Suppression	1 Joule Integrated
Environmental	IP55
Temperature	-30°C to 55°C (-22°F to 131°F)
Weight	0.5 kg (1 lb)
Dimensions	124 x 251 x 119 mm (4.9 x 9.9 x 4.7 in)
Pole Diameter Range	Center: 2.5 to 4.1 cm (1. to 1.6 in)
Power Consumption	13W (up to 15W in extreme cold temperatures when heater is activated)
Input Voltage	22V–56V
Antenna	16 dBi Integrated Panel

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Security

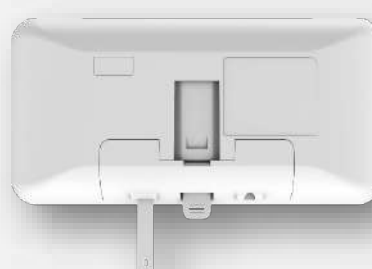
Encryption	128-bit AES (CCMP mode), 256-bit AES optional, where allowed
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Certifications

FCCID	Z8H89FT0089
Industry Canada Cert	109W-0089
CE	Visit cambiumnetworks.com for declaration of conformity.



Front



Back



Side



Bottom



Front, Pole Mount



Back, Pole Mount

Force 4616 Subscriber Module

Ordering Information (models with GPS built in)

C068940C132A	ePMP 6 GHz Force 4616 SM Radio (IC/FCC) (US Cord)
C068940C931A	ePMP 6 GHz Force 4616 SM with GPS (ROW) (South Africa cord)
C068940C031A	ePMP 6 GHz Force 4616 SM with GPS (ROW) (no cord)
C068940C231A	ePMP 6 GHz Force 4616 SM with GPS (ROW) (EU cord)
C068940C131A	ePMP 6 GHz Force 4616 SM with GPS (ROW) (US cord)

Ordering Information (models without GPS support)

C060940C131A	ePMP 6 GHz Force 4616 SM Radio (ROW) (US cord)
C060940C231A	ePMP 6 GHz Force 4616 SM Radio (ROW) (EU cord)
C060940C233A	ePMP 6 GHz Force 4616 SM Radio (EU) (EU cord)
C060940C236A	ePMP 6 GHz Force 4616 SM Radio (Indonesia) (EU Cord)
C060940C331A	ePMP 6 GHz Force 4616 SM Radio (ROW) (UK cord)
C060940C333A	ePMP 6 GHz Force 4616 SM Radio (EU) (UK cord)
C060940C431A	ePMP 6 GHz Force 4616 SM Radio (ROW) (India cord)
C060940C435A	ePMP 6 GHz Force 4616 SM Radio (India) (India Cord)
C060940C531A	ePMP 6 GHz Force 4616 SM Radio (ROW) (China cord)
C060940C631A	ePMP 6 GHz Force 4616 SM Radio (ROW) (Brazil cord)
C060940C731A	ePMP 6 GHz Force 4616 SM Radio (ROW) (Argentina cord)
C060940C831A	ePMP 6 GHz Force 4616 SM Radio (ROW) (ANZ cord)
C060940C931A	ePMP 6 GHz Force 4616 SM Radio (ROW) (South Africa 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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