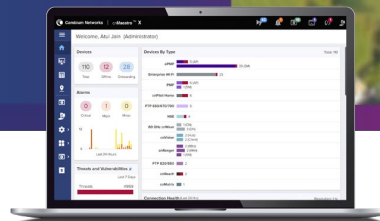


# ePMP 6 GHz Force 4616 Series Subscriber Module

## 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
- 3-year hardware warranty



## 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
- Cambium Networks' 3-year hardware warranty and support
- Includes a power over Ethernet (PoE) injector and pole mount hardware

## Force 4616 Subscriber Module

### Spectrum

<b>Channel Width MHz</b>	20   40   80   160 MHz
<b>Proprietary Physical Layer</b>	ePMP air interface with 2x2 MIMO/OFDMA
<b>Channel Spacing</b>	Configurable in 5 MHz increments
<b>Frequency Range</b>	Force 4616: 5925–7125 MHz*
<b>MAC Layer (Media Access Control)</b>	Cambium proprietary
<b>Ethernet Interface</b>	100/1000 BaseT, rate auto negotiated
<b>Protocols Used</b>	IPv4/IPV6 , UDP, TCP, IP, ICMP, SNMPv2c, HTTPs, STP, SSH, IGMP snooping
<b>Network Management</b>	HTTP/HTTPS, SNMPv1/2, SNMPv3, SSH
<b>VLAN</b>	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 jurisdictions.

### Performance

<b>ARQ</b>	Yes
<b>Nominal Receive Sensitivity (w/FEC) @20 MHz Channel</b>	MCS 0 = -92 dBm to MCS 11 (1024 QAM-5/6) = -61 dBm (per chain)
<b>Nominal Receive Sensitivity (w/FEC) @40 MHz Channel</b>	MCS 0 = -89 dBm to MCS 11 (1024 QAM-5/6) = -58 dBm (per chain)
<b>Nominal Receive Sensitivity (w/FEC) @80 MHz Channel</b>	MCS 0 = -86 dBm to MCS 11 (1024 QAM-5/6) = -55 dBm (per chain)
<b>Nominal Receive Sensitivity (w/FEC) @160 MHz Channel</b>	MCS 0 = -86 dBm to MCS 11 (1024 QAM-5/6) = -51 dBm (per chain)
<b>Modulation Levels (Adaptive)</b>	MCS 0 (BPSK) to MCS 11 (1024 QAM-5/6)
<b>Geolocation</b>	Built-in or external USB GPS receiver (optional)
<b>Transmit Power Range</b>	+3 to +28 dBm (combined, to regional EIRP limit) (1 dB interval)
<b>QoS (Quality of Service)</b>	Three-level priority (voice, high, low) with packet classification by DSCP, COS, VLAN ID, IP & MAC address, broadcast, multicast, and station priority

### Physical

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

## Force 4616 Subscriber Module

### Security

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

### Certifications

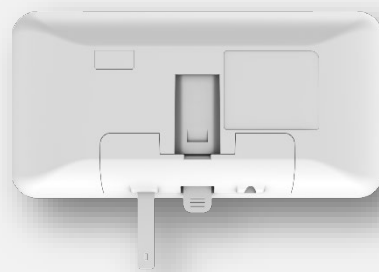
**FCCID** Z8H89FT0089

**Industry Canada Cert** 109W-0089

**CE** Visit [cambiumnetworks.com](http://cambiumnetworks.com) for declaration of conformity.



Front



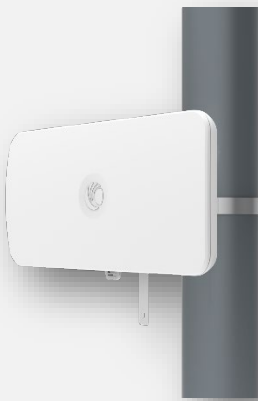
Back



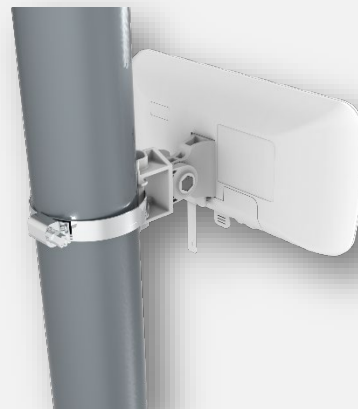
Side



Bottom



Front, Pole Mount



Back, Pole Mount

## Force 4616 Subscriber Module

### Ordering Information

<b>C060940C131A</b>	ePMP 6 GHz Force 4616 SM Radio (ROW) (US cord)
<b>C060940C231A</b>	ePMP 6 GHz Force 4616 SM Radio (ROW) (EU cord)
<b>C060940C233A</b>	ePMP 6 GHz Force 4616 SM Radio (EU) (EU cord)
<b>C060940C236A</b>	ePMP 6 GHz Force 4616 SM Radio (Indonesia) (EU Cord)
<b>C060940C331A</b>	ePMP 6 GHz Force 4616 SM Radio (ROW) (UK cord)
<b>C060940C333A</b>	ePMP 6 GHz Force 4616 SM Radio (EU) (UK cord)
<b>C060940C431A</b>	ePMP 6 GHz Force 4616 SM Radio (ROW) (India cord)
<b>C060940C435A</b>	ePMP 6 GHz Force 4616 SM Radio (India) (India Cord)
<b>C060940C531A</b>	ePMP 6 GHz Force 4616 SM Radio (ROW) (China cord)
<b>C060940C631A</b>	ePMP 6 GHz Force 4616 SM Radio (ROW) (Brazil cord)
<b>C060940C731A</b>	ePMP 6 GHz Force 4616 SM Radio (ROW) (Argentina cord)
<b>C060940C831A</b>	ePMP 6 GHz Force 4616 SM Radio (ROW) (ANZ cord)
<b>C060940C931A</b>	ePMP 6 GHz Force 4616 SM Radio (ROW) (South Africa cord)
<b>C068940C132A</b>	ePMP 6 GHz Force 4616 SM Radio (IC/FCC) (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.

[cambiumnetworks.com](http://cambiumnetworks.com)