

# XV3-8 Wi-Fi 6 Access Point

802.11ax Tri-Radio 8x8 Access Point with Software-Defined Radios

## QUICK LOOK:

- **High-density Wi-Fi with software-defined radios (SDR)**
- **Five-radio architecture for edge services**
- **6 Gbps aggregate data rate**
- **Dedicated scanning sensor, dual band**
- **Application policy control**
- **EasyPass with Microsoft Azure and Google G Suite integration**



### DESIGNED FOR HIGH DENSITY AND EDGE SERVICES

The XV3-8 features a total of five (5) radios to deliver a next-generation network with edge services with high capacity and high density. Three data radios can be configured as two 5 GHz 4x4 plus one 2.4 GHz 4x4, or the two 5 GHz radios can be combined into a single 5 GHz 8x8 radio with the maximum power and performance of the 802.11ax standard. A dedicated network scanning radio provides continuous network monitoring to enhance security protocols, detailed network reports, and automatic RF optimizations. Add the Bluetooth Smart 4.1 IoT radio for BLE-based location services and you get a multi-radio, high-capacity Wi-Fi 6 AP designed for the most demanding networks in enterprise, education, retail, and public venues.

XV3-8 comes with Limited Lifetime Warranty providing return and repair service on the access point from date of purchase until end of life of the product.

### OPTIMIZED WI-FI FOR DOMINANT CLIENT DEVICES

For networks dominated by legacy 802.11ac client devices, the dual 5 GHz 4x4 mode will double network capacity to maintain high-bitrate services as density increases. As the devices migrate to the new Wi-Fi 6 standard based on 802.11ax, the XV3-8 SDR can be quickly converted into full 8x8 operating mode via a simple configuration change. No firmware change is required to support this mode.



### CLOUD AND ON-PREMISES MANAGEMENT

XV3-8 operates with either Cambium Networks' XMS or cnMaestro™ management system. Choose the management system that best fits your business and use the latest technology from Cambium Networks.

## XV3-8 Wi-Fi 6 Access Point

### Access Point Specifications

*Note: Some features will be included on subsequent firmware releases.*

**FCC** Ch 1-11, 36-48, 52-64, 100-144, 149-165

**ISED** Ch 1-11, 36-48, 52-64, 100-144, 149-165

**ETSI** Ch 1-13, 32-48, 52-64, 100-144

**ROW** (Individual country limits may apply)  
Ch 1-14, 36-48, 52-64, 100-144, 149-165

**Radios**  
**2.4 GHz:** 802.11 b/g/n/ax, 4x4  
**5 GHz:** 802.11 a/n/ac Wave 2/ax, 8x8  
(or configure as two 4x4)  
2.4/5 GHz scan, 1x1  
BLE 4.1

**Wi-Fi** 802.11 a/b/g/n/ac Wave 2/ax

**SSID Security** WPA3, WPA2 (CCMP, AES, 802.11i), WPA2 Enterprise (802.1x/EAP), WPA PSK (TKIP), Open

**Max PHY Rate**  
**2.4 GHz:** 1,147 Mbps  
**5 GHz:** 4,804 Mbps

**Ports**  
1 x IEEE 802.3 10/100/1000 Mbps  
1 x IEEE 802.3bz 100/1000/2500/5000 Mbps  
Auto sensing MDIX  
1 x USB 3.0  
1 x Serial Console (4 pin)

**Antenna**  
**2.4 GHz:** 5 dBi  
**5 GHz:** 6.7dBi  
**2.4/5 GHz:** sensor 5 dBi / 6.3 dBi  
BLE 5 dBi

**Max EIRP**  
**2.4 GHz:** 31 dBm  
**5 GHz:** 36 dBm

**Power** Max power with USB/BLE, 35 W (802.3bt) 802.3at mode with USB/BT disabled  
12 VDC power, 2.1 mm (.083 in) barrel connector

**Dimensions** 235 mm x 235 mm x 42 mm  
(9.25 in x 9.25 in x 1.65 in)

**Weight** 1,250 g (2.76 lbs)

**Security** Kensington lock slot

**LEDs** Multi-color status LEDs

**Ambient Operating Temperature** 0°C to 50°C (32°F to 122°F)

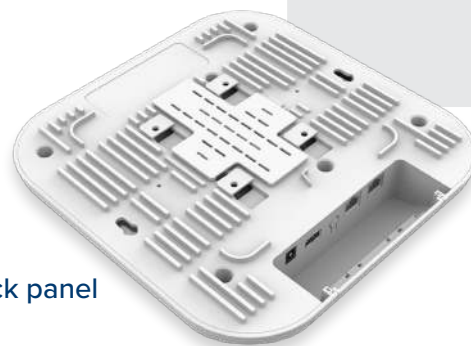
**Storage Temperature** -20°C to 70°C (-4°F to 158°F)

**Humidity** 95% RH non-condensing

**MTBF** 111k hours

**Mount Options** Wall or ceiling, T-bar with included locking bracket, ceiling tile plate

**Certifications (Compliance)** Wi-Fi Alliance 802.11 a/b/g/n/ac/ax, PP2.0, FCC, IC, CE, EN 60601-1-2, EN 60950-1, IEC 62368-1 Safety, EN 60601-1-2 Medical, EN 61000-4-2/3/5 Immunity, EN 50121-1 Railway EMC, EN 50121-4 Railway Immunity, IEC 61373 Railway Shock & Vibration, UL 2043 Plenum, EN 62311 Human Safety/RF Exposure, WEEE & RoHS



Back panel

## XV3-8 Wi-Fi 6 Access Point

### Management

*Note: Some features will be included on subsequent firmware releases.*



**Cambium Networks XMS** leverages intelligent access points (AP) with embedded edge controller to deliver edge services at any network density. The XMS management plane is a cloud-first technology with a simple and easy-to-use interface delivering application L7 policy-based control, EasyPass BYOD secure access, and an MSP dashboard with drag and drop design.

XMS management architecture supports SDR to operate the XV3-8 radio in either single 5 GHz 8x8 or dual 5 GHz 4x4.



**Cambium Networks cnMaestro™** uses a distributed intelligence architecture with cloud-first management and edge-intelligent APs that self-optimize for the RF environment. cnMaestro delivers a single pane-of-glass management for Cambium broadband fixed wireless, cnMatrix Ethernet switches, enterprise-grade Wi-Fi APs and service provider residential routers.

	XMS Management	cnMaestro Management
<b>Deployment</b>	Xirrus Management System (XMS-Cloud)	cnMaestro Cloud, cnMaestro on-premises, Standalone AP
<b>SDR</b>	Yes, SDR operation on the 5 GHz band Configure as a single 8x8 radio or dual 5 GHz, 4x4	No, The 5 GHz operates as a single 802.11ax, 8x8
<b>Services</b>	Deep Packet Inspection (DPI) Application Visibility and Control for 2,000+ apps EasyPass Access Services	Monetized, cloud-managed guest portal with design tools
<b>APIs</b>	RESTful management and statistics API Location API	RESTful management and statistics API Location API Webhooks
<b>Captive Portal</b>	Web Page Redirect, landing page, redirect to internal or external server, landing page and authentication EasyPass, Guest Ambassador Client isolation per SSID, per network Client rate limiting per SSID Click-through authentication Microsoft Azure and Google G Suite SSO integration	Hosted on cnMaestro or hosted on site AP Redirect to HTTP/RADIUS external portal/authentication Active Directory integration, Google, Facebook, Office 365 integration Data rate, time duration, data throughput limit Server DNS logging, Hotspot 2.0/Passpoint 2.0 Credit Card Merchant billing, ePSK, Vouchers
<b>Accounting</b>	RADIUS accounting, load balancing AAA servers, Dynamic Authorization COA, DM	

## XV3-8 Wi-Fi 6 Access Point

### Network Specifications

*Note: Some features will be included on subsequent firmware releases.*

<b>Operational Modes</b>	Standalone Cloud managed cnMaestro or VM Cloud managed XMS	<b>RF Management</b>	Multimodal RF optimization supporting AutoCell performed in the intelligent edge AP. Out-of-band RF spectrum analysis, radio self test network assurance, RF monitor with chn/noise/interference  Data rate pruning and minimum data rates
<b>WLAN</b>	1,024 clients, 16 SSIDs WPA3, WPA-TKIP, WPA2 AES, 802.1x, 802.11w PMF	<b>Network</b>	TCP connection log, NAT logging firewall, DHCP server, L2, L3 or DNS based access control, VLAN Pooling, RADIUS attribute VID VLAN per SSID per user
<b>Authentication Encryption</b>	802.1x EAP-SIM/AKA, EAP-PEAP, EAP-TTLS, EAP-TLS MAC authentication to local database or external RADIUS	<b>Band Steer Load Balance</b>	Yes
<b>Scheduled WLAN</b>	On/off by day, week, time of day	<b>Tunnel</b>	L2TP, L2oGRE, PPPoE
<b>Guest Access</b>	See “Captive Portal” section for additional details.	<b>Network and RF Management Tools</b>	Wired and wireless remote packet capture, auto logging, ZapD performance tool, rogue AP detection
<b>Data Limit</b>	Client bitrate/time/throughput limit per SSID	<b>Services</b>	NTP, Syslog, SNMP traps, DNS proxy, auto-off on WAN failure
<b>Subscriber QoS</b>	WMM		
<b>Fast Roaming</b>	802.11r, OKC, Enhanced roaming		
<b>Mesh</b>	Multi-hop, either band		
<b>Channel Selection</b>	Multimodal channel selection with AutoChannel and AutoBand. Granular control of off-channel scan and channel selection		

### Standards

<b>Wi-Fi Protocols</b>	VHT MCS rates, 16/64/256/1024-QAM, 20/40/80/160 MHz
	TWT, Long OFDM Symbol, Transmit beamforming, Airtime Fairness, AMSDU, AMPDU, RIFS, STBC, LDPC, MIMO Power Save, MRC, BPSK, QPSK, CCK, DSSS, OFDM, OFDMA, UL/DL MU-MIMO
	IEEE 802.11 a/ac/ax/b/d/e/g/h/i/j/k/n/r/s/u/v/w

### XV3-8 Wi-Fi 6 Access Point



Top view



Top view



Left side



Right side



Back panel

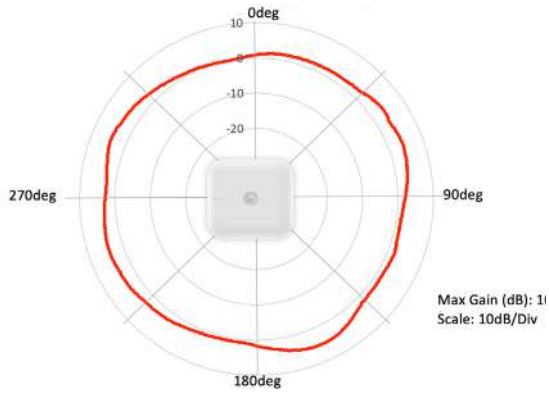


Back panel

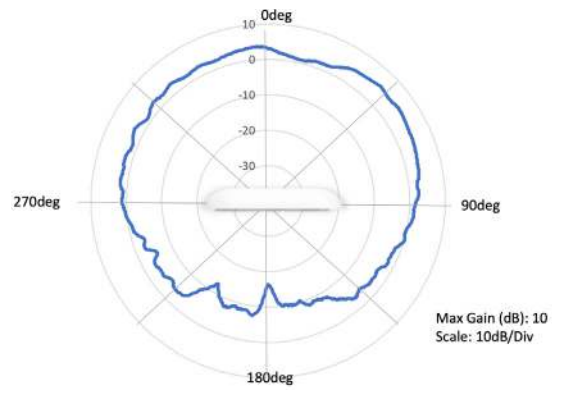
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## Antenna Patterns

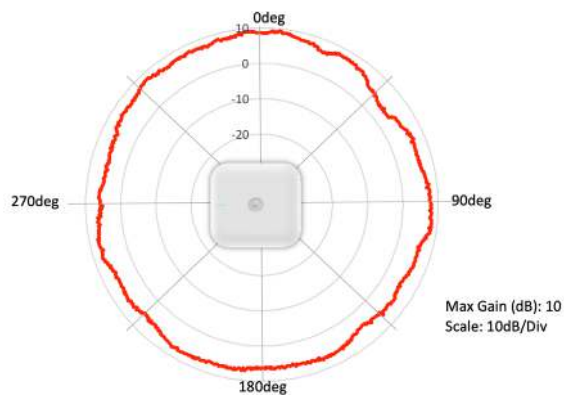
2.4 GHz Azimuth



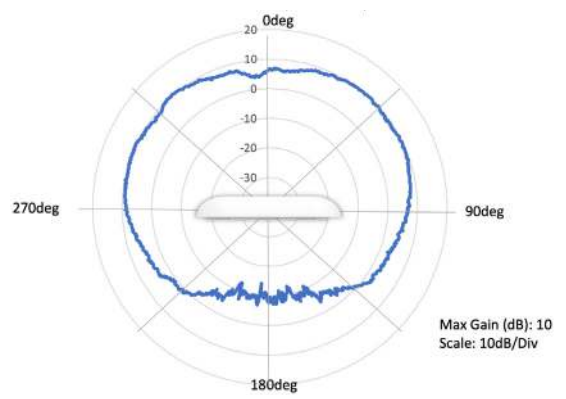
2.4 GHz Elevation



5 GHz Azimuth



5 GHz Elevation



## XV3-8 Wi-Fi 6 Access Point

### Cambium Ordering Information

<b>Regulatory Model</b>	REG-XV3-8
<b>XV3-8X00A00-US</b>	XV3-8 Tri-Radio Wi-Fi 6. Indoor (FCC) SDR 802.11ax 8x8 or Dual 4x4 5 GHz WLAN AP, scan radio, BLE, US
<b>XV3-8X00A00-CA</b>	XV3-8 Tri-Radio Wi-Fi 6. Indoor (FCC) SDR 802.11ax 8x8 or Dual 4x4 5 GHz WLAN AP, scan radio, BLE, CA
<b>XV3-8X00A00-EU</b>	XV3-8 Tri-Radio Wi-Fi 6. Indoor (FCC) SDR 802.11ax 8x8 or Dual 4x4 5 GHz WLAN AP, scan radio, BLE, EU
<b>XV3-8X00A00-RW</b>	XV3-8 Tri-Radio Wi-Fi 6. Indoor (FCC) SDR 802.11ax 8x8 or Dual 4x4 5 GHz WLAN AP, scan radio, BLE, RW
<b>XMSC-SUB-2R-1</b>	XMS-Cloud 1-year subscription: 2-radio AP with EasyPass Guest Self-Registration and Guest Ambassador modules and Cambium Care Advanced Support
<b>XMSC-SUB-2R-3</b>	XMS-Cloud 3-year subscription: 2-radio AP with EasyPass Guest Self-Registration and Guest Ambassador modules and Cambium Care Advanced Support
<b>XMSC-SUB-2R-5</b>	XMS-Cloud 5-year subscription: 2-radio AP with EasyPass Guest Self-Registration and Guest Ambassador modules and Cambium Care Advanced Support
<b>EASY-SUB-2R-1</b>	EasyPass 1-year subscription for a 2-radio AP operating with XMS-Cloud or XMS-Enterprise
<b>EASY-SUB-2R-3</b>	EasyPass 3-year subscription for a 2-radio AP operating with XMS-Cloud or XMS-Enterprise
<b>EASY-SUB-2R-5</b>	EasyPass 5-year subscription for a 2-radio AP operating with XMS-Cloud or XMS-Enterprise
<b>CCADV-SUP-XV3-8-1</b>	Cambium Care Advanced, 1-year support for one XV3-8 Wi-Fi 6 AP. 24x7 TAC support, SW updates, and NBD advance replacement for HW
<b>CCADV-SUP-XV3-8-3</b>	Cambium Care Advanced, 3-year support for one XV3-8 Wi-Fi 6 AP. 24x7 TAC support, SW updates, and NBD advance replacement for HW
<b>CCADV-SUP-XV3-8-5</b>	Cambium Care Advanced, 5-year support for one XV3-8 Wi-Fi 6 AP. 24x7 TAC support, SW updates, and NBD advance replacement for HW
<b>CCPRO-SUP-XV3-8-1</b>	Cambium Care Pro, 1-year support for one XV3-8 Wi-Fi 6 AP. 24x7 TAC support and SW updates
<b>CCPRO-SUP-XV3-8-3</b>	Cambium Care Pro, 3-year support for one XV3-8 Wi-Fi 6 AP. 24x7 TAC support and SW updates
<b>CCPRO-SUP-XV3-8-5</b>	Cambium Care Pro, 5-year support for one XV3-8 Wi-Fi 6 AP. 24x7 TAC support and SW updates

## XV3-8 Wi-Fi 6 Access Point

### Cambium Ordering Information

<b>AX-E510RBKT-WW</b>	Shock mount bracket for cnPilot e510 and e505, Wi-Fi 6 XV3-8
<b>N000000L142A</b>	PoE injector, 60 W, 5 GbE, Indoor, Energy Level 6 Supply
<b>N000900L031A</b>	Cable UL Power Supply Cord Set, 720 mm, US
<b>N000900L032A</b>	Cable UL Power Supply Cord Set, 720 mm, US
<b>N000900L033A</b>	Cable UL Power Supply Cord Set, 720 mm, UK
<b>N000900L034A</b>	Cable UL Power Supply Cord Set, 720 mm, BR
<b>N000900L011A</b>	Cable UL Power Supply Cord Set, 720 mm, ANZ
<b>N000900L012A</b>	Cable UL Power Supply Cord Set, 720 mm, IN
<b>N000900L013A</b>	Cable UL Power Supply Cord Set, 720 mm, AR
<b>N000900L015A</b>	Cable UL Power Supply Cord Set, 720 mm, CN

### LIMITED WARRANTY

Cambium Networks XV3-8 Wi-Fi 6 Access Point includes a limited lifetime hardware warranty for a period of 5 years after end of sale.

#### ABOUT CAMBIUM NETWORKS

Cambium Networks delivers wireless communications that work for businesses, communities and cities worldwide. Millions of our radios are deployed to connect people, places and things with a unified wireless fabric that spans multiple standards and frequencies of fixed wireless and Wi-Fi, all managed centrally via the cloud. Our multi-gigabit wireless fabric offers a compelling value proposition over traditional fiber and alternative wireless solutions. We work with our Cambium certified ConnectedPartners to deliver purpose-built networks for service provider, enterprise, industrial, and government connectivity solutions in urban, suburban, and rural environments, with wireless that just works.