

# 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

**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 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 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.

	Cambium XMS Management	Cambium 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  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  On-AP hosted guest portal  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
<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>Mesh</b>	Multi-hop, either band
<b>WLAN</b>	1,024 clients, 16 SSIDs WPA3, WPA-TKIP, WPA2 AES, 802.1x, 802.11w PMF	<b>Channel Selection</b>	Multimodal channel selection with AutoChannel and AutoBand. Granular control of off-channel scan and channel selection
<b>Captive Portal</b>	Hosted on cnMaestro or External On-AP hosted guest portal Redirect to HTTP/RADIUS Server DNS logging	<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>Authentication Encryption</b>	802.1x EAP-SIM/AKA, EAP-PEAP, EAP-TTLS, EAP-TLS MAC authentication to local database or external RADIUS	<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>Scheduled WLAN</b>	On/off by day, week, time of day	<b>Band Steer Load Balance</b>	Yes
<b>Guest Access</b>	EasyPass guest self-registration, guest Ambassador, ePSK, Vouchers, Rate Limit, Splash page hosted on AP or cnMaestro Client isolation per SSID, per network	<b>Tunnel</b>	L2TP, L2oGRE, PPPoE
<b>Data Limit</b>	Client bitrate/time/throughput limit per SSID	<b>Network and RF Management Tools</b>	Wired and wireless remote packet capture, auto logging, ZapD performance tool, rogue AP detection
<b>Subscriber QoS</b>	WMM	<b>Services</b>	NTP, Syslog, SNMP traps, DNS proxy, auto-off on WAN failure
<b>Fast Roaming</b>	802.11r, OKC, Enhanced roaming		

### 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



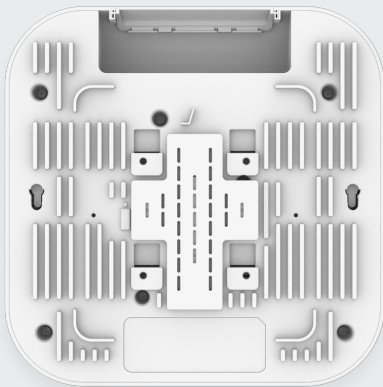
Top view



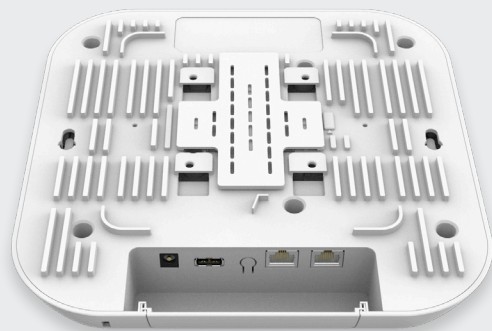
Left side



Right side



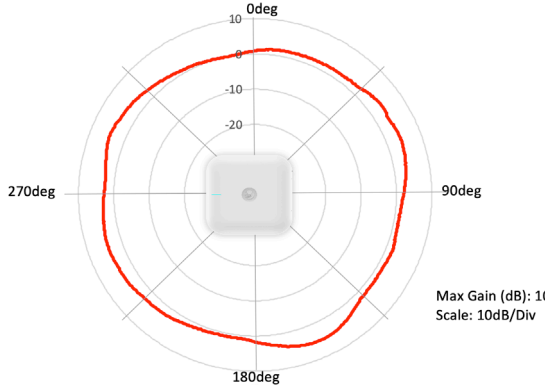
Back panel



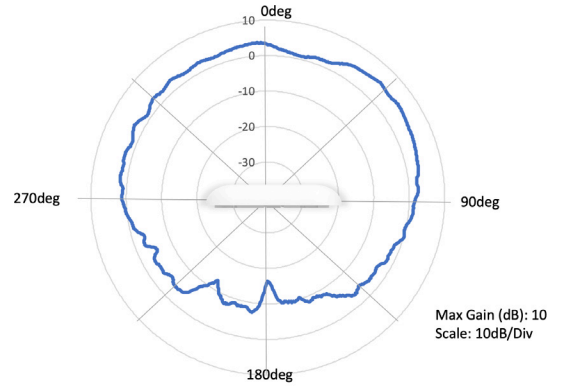
Back panel

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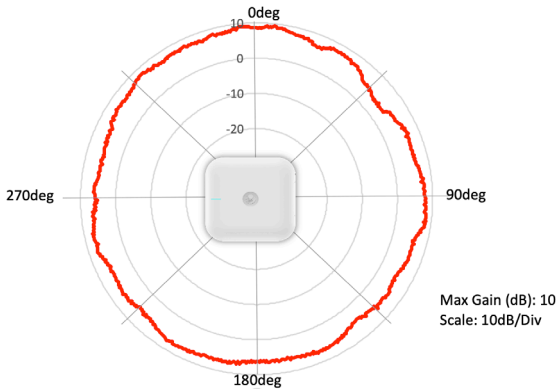
## Antenna Patterns



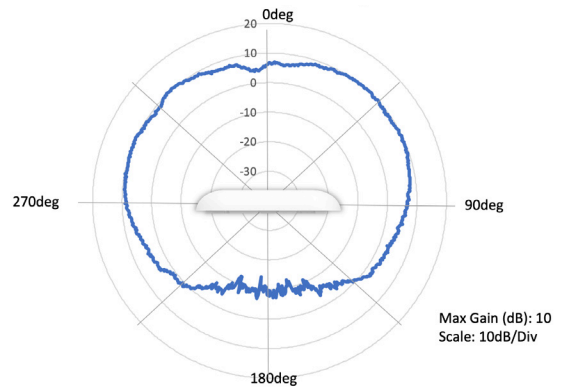
2.4 GHz Azimuth



2.4 GHz Elevation



5 GHz Azimuth



5 GHz Elevation

## XV3-8 Wi-Fi 6 Access Point

### Cambium Ordering Information

<b>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

**AX-E510RBKT-WW** Shock mount bracket for cnPilot e510 and e505, Wi-Fi 6 XV3-8

**N000000L142A** PoE injector, 60 W, 5 GbE, Indoor, Energy Level 6 Supply

**N000900L031A** Cable UL Power Supply Cord Set, 720 mm, US

**N000900L032A** Cable UL Power Supply Cord Set, 720 mm, US

**N000900L033A** Cable UL Power Supply Cord Set, 720 mm, UK

**N000900L034A** Cable UL Power Supply Cord Set, 720 mm, BR

**N000900L011A** Cable UL Power Supply Cord Set, 720 mm, ANZ

**N000900L012A** Cable UL Power Supply Cord Set, 720 mm, IN

**N000900L013A** Cable UL Power Supply Cord Set, 720 mm, AR

**N000900L015A** Cable UL Power Supply Cord Set, 720 mm, CN

#### ABOUT CAMBIUM NETWORKS

Cambium Networks empowers millions of people with wireless connectivity worldwide. Its wireless portfolio is used by commercial and government network operators as well as broadband service providers to connect people, places and things. With a single network architecture spanning fixed wireless and Wi-Fi, Cambium Networks enables operators to achieve maximum performance with minimal spectrum. End-to-end cloud management transforms networks into dynamic environments that evolve to meet changing needs with minimal physical human intervention. Cambium Networks empowers a growing ecosystem of partners who design and deliver gigabit wireless solutions that just work.