XV3-8 Wi-Fi 6 Access Point

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

XV3-8 Quick Look:

- High-density Wi-Fi with software-defined radios (SDR)
- 5-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 Wi-Fi 6 Access Point (AP) features a total of 5 radios to deliver a next-generation network at the edge service 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.

The XV3-8 comes with a limited lifetime warranty providing return and repair service on the AP 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. When 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

The XV3-8 is supported by Cambium's ONE Network enterprise architecture managed by the cnMaestro™ Network Management System. cnMaestro delivers a single-pane-of-glass management experience for enterprise Wi-Fi Aps, cnMatrix™ Ethernet Switches, NSE Security Appliance/SD-WAN Firewall, service provider residential routers, and Cambium's fixed wireless broadband and fiber.

Cambium Networks™

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Access Point Specifications

Radios	**5 GHz:** 802.11 a/n/ac/ax, 8x8 (or dual 4x4) **2.4 GHz:** 802.11 b/g/n/ax, 4x4 2.4/5 GHz scan, 1x1 BLE 4.1	**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
Wi-Fi	802.11 a/b/g/n/ac/ax	**Dimensions**	235 mm x 235 mm x 42 mm (9.25 in x 9.25 in x 1.65 in)
SSID Security	WPA3-SAE, WPA3-Enterprise, WPA2-PSK (CCMP, AES, 802.11i), WPA2-Enterprise (802.1X/EAP), OSEN, OWE, Open	**Weight**	1,250 g (2.76 lb)
		Security	Kensington lock slot
Ports	1 x IEEE 802.3bz 100/1000/2500/5000 Mbps 1 x IEEE 802.3 10/100/1000 Mbps 1 x USB 3.0	**Mount Options**	Wall or ceiling, T-bar with included locking bracket, ceiling tile plate
Antenna Gain	**5 GHz**: 6.7dBi, Omni **2.4 GHz:** 5 dBi, Omni 2.4/5 GHz: sensor 5 / 6.3 dBi BLE: 5 dBi	**Ambient Operation Temperature**	0ºC to 50ºC (32ºF to 122ºF)
Max EIRP*	**5 GHz:** 36 dBm **2.4 GHz:** 31 dBm	**Storage Temperature**	-20ºC to 70ºC (-4ºF to 158ºF)
Max PHY Rate	**5 GHz radio** 4,804 Mbps **2.4 GHz radio** 1,147 Mbps	**Humidity**	95% RH non-condensing
		MTBF	891k hours 50ºC and 2.379 million hours at 25ºC
FCC	Ch 1–11, 36–64, 100–144, 149–165	**LEDs**	Multi-color status LEDs
ISED	Ch 1–11, 36–64, 100–116, 149–165	**Certifications** (compliance)	Wi-Fi Alliance 802.11 a/b/g/n/ac/ax, FCC, IC, CE, EN 60601-1-2, EN 60950-1, IEC
ETSI	Ch 1–13, 36–64, 100–140		62368-1 Safety, EN 60601-1-2 Medical, EN 61000-4-2/3/5 Immunity, EN 50121-1
ROW*	Ch 1–14, 36–64, 100–144, 149–173		Railway EMC, EN 50121-4 Railway Immunity, IEC 61373 Railway Shock & Vibration, UL 2043 Plenum,
			EN 62311 Human Safety/RF Exposure,
			WEEE & RoHS

*Individual country limits may apply.

Standards

Wi-Fi Protocols	Data Coding support 16/64/256/1024-QAM Channel width support 5GHz: 20/40/80 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

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Network Specifications

Operational Modes	Controllerless standalone Cloud-managed cnMaestro or VM	**RF Management**	Multi-modal RF optimization supporting Auto-RF for dynamic channel selection and dynamic power adjustment configured via cnMaestro, performed in the intelligent edge AP. RF monitor with channel utilization/ packet error rate / interference.
WLAN	1024 clients per AP, 1536 concurrent clients with split radio 16 SSIDs per AP		
Security, Authentication Encryption	Open, WPA2-AES with PSK, ePSK and Enterprise WPA3 with PSK (WPA3-SAE), ePSK, Enterprise, Enterprise-CNSA, OWE (Enhanced Open) OSEN and PMF (802.11 W) MAC authentication with local database or external database using RADIUS protocol 802.1X with EAP-TTLS, EAP-TLS / MSCHAPv2, PEAPv0 / PEAPv1 / EAP-PEAP / EAP-SIM/AKA/AKA'/FAST Hotspot WEB authentication	**Band Steering**	Yes
		Mesh	Multi-hop, either band
		Scheduled WLAN	On/off by day, week, time of day
		Data Limit	Client bitrate/time/throughput limit per SSID
		Network	TCP connection log, NAT logging firewall, DHCP server, VLAN pooling, RADIUS attribute, VID VLAN per SSID per user, ePSK with VLAN assignment per PSK. LLDP, IGMP v1, v2
		Network Tools	Wired and wireless remote packet capture, logging, WAN speed test, ZapD, remote network connectivity tools
Wi-Fi Quality of Service	WMM (packet marking either with 802.1p or IP DSCP), WMM-PS, U-APSD Multicast to unicast conversion	**Tunnel**	L2TPv2, L2GRE, PPPoE
		IP	IPv4, IPv6
Service Availability	Critical network resource monitor with SSID shutdown	**VLAN**	802.11Q, max 4096
Fast Roaming	802.11k/r/v, OKC, cnMaestro-assisted roam	**Management Interfaces**	HTTP / HTTPS web interface, SSH, Telnet
Guest Access/ Captive Portal Service (EasyPass)*	cnMaestro-hosted EasyPass portal Multiple authentication methods supported to onboard guest user: • Radius-based authentication • Click-through with simple terms and conditions acceptance • Social login using Google®, Facebook® • SMS-based authentication (X) • Voucher-based access • Microsoft® Azure AD and Google Workspace® (X) • Sponsored guest access (X) • Self-registration access (X) cnMaestro API support for external captive portal integration 802.11u, HotSpot 2.0	**Security**	Rogue AP detection and termination, WIDs/WIPs, DoS protection L2–L7 firewall with application visibility(X) & control(X), DNS based access control(X). ACL and AirCleaner tools
		Services	Wi-Fi Calling control, NTP, Syslog, DNS proxy, auto-off on WAN failure, SNMP traps, SNMPv1, SNMPv2c, SNMPv3
		API	RESTful management and statistics API via cnMaestro X, Presence location push APIs
Accounting	RADIUS accounting, multiple AAA		

*X features available in cnMaestro X.

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Management

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, NSE Service Edge, and residential service provider routers.

cnMaestro can be deployed on cloud or on-premises via a virtual machine.

To serve a growing market for advanced management and services functionality, Cambium Networks offers cnMaestro in two management tiers:

cnMaestro X

Paid subscription that includes:

- Advanced device management capabilities
- Deep packet inspection (DPI) application visibility and Control for 2,400+ apps
- RESTful management and statistics API
- Presence location push APIs
- Graphic reports
- Webhooks
- Cambium Care Pro for 24x7 technical support
- Accelerated access to L2 engineers and regular software updates

Assists

- Assesses the network's configuration and identifies weak security settings and proposes a fix to ensure the network configuration is up to the top security industry standards

X Assurance

- Helps to quickly identify network-wide connectivity issues by isolating every element of the client's lifecycle, either radio or network related
- Gives an overview quality index of the network and highlights each element's contribution to easily identify the worst offender
- Provides insight of probable causes and proposes fixes for the administrator to apply
- Provides individual client connectivity visibility throughout the entire lifecycle of its connection to easily identify each connection's result and highlight the failure reason, should there be any

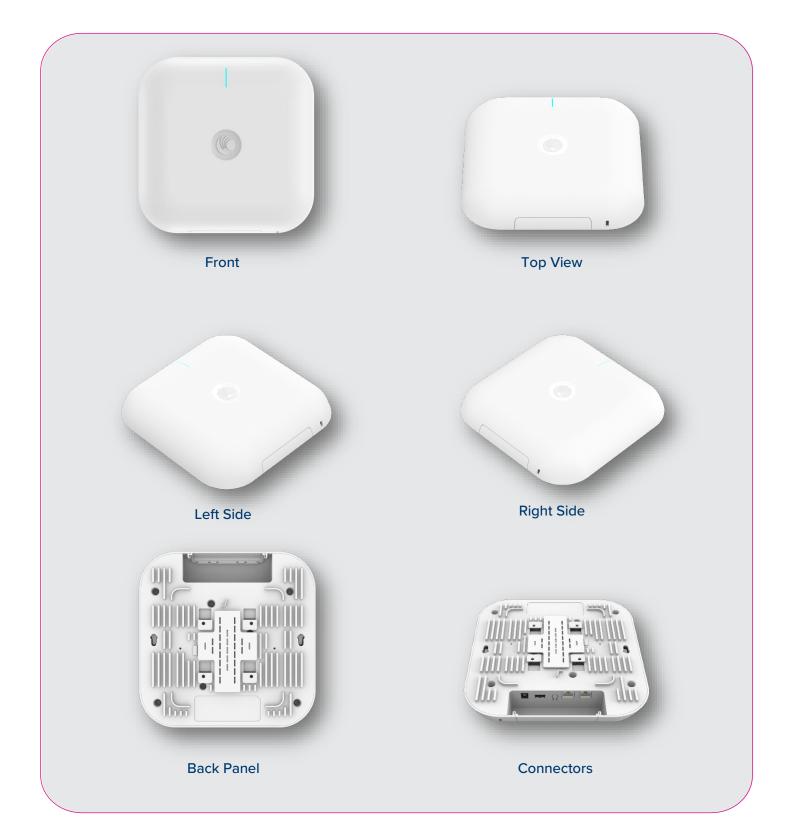### EasyPass Portal with Additional Options

- Self-registration: Form-based access
- Sponsored guest: Guest ambassador-based access
- Paid access: Monetize the Wi-Fi access
- Microsoft Azure: Corporate user login
- Google Login: Web login using Google accounts
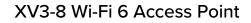
cnMaestro Essentials

License-free cloud management that delivers a disruptive total cost of ownership (TCO) for organizations of all sizes. Includes EasyPass for OneClick or voucher-based connection as well as WiFi4EU access.

Find out more about cnMaestro

XV3-8 Wi-Fi 6 Access Point

Front

Top View

Left Side

Right Side

Back Panel

Connectors

XV3-8 Wi-Fi 6 Access Point

Antenna Patterns

2.4 GHz Azimuth	2.4 GHz Elevation

Max Gain (dB): 10
Scale: 10dB/Div

Max Gain (dB): 10
Scale: 10dB/Div

5 GHz Azimuth	5 GHz Elevation

Max Gain (dB): 10
Scale: 10dB/Div

Max Gain (dB): 10
Scale: 10dB/Div

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XV3-8 Ordering Information	
Regulatory Model	XV3-8
XV3-8X00A00-US	XV3-8 Tri-Radio Wi-Fi 6. Indoor (FCC) SDR 802.11ax 8x8 or Dual 4x4 5 GHz WLAN AP, scan radio, BLE, US
XV3-8X00A00-CA	XV3-8 Tri-Radio Wi-Fi 6. Indoor (FCC) SDR 802.11ax 8x8 or Dual 4x4 5 GHz WLAN AP, scan radio, BLE, CA
XV3-8X00A00-EU	XV3-8 Tri-Radio Wi-Fi 6. Indoor (FCC) SDR 802.11ax 8x8 or Dual 4x4 5 GHz WLAN AP, scan radio, BLE, EU
XV3-8X00A00-RW	XV3-8 Tri-Radio Wi-Fi 6. Indoor (FCC) SDR 802.11ax 8x8 or Dual 4x4 5 GHz WLAN AP, scan radio, BLE, RW
AX-E510RBKT-WW	Shock mount bracket for cnPilot e510 and e505, Wi-Fi 6 XV3-8, XV2-2. XE3-4
AX-WALLBRKT-WW	Wall Mount L-Bracket for XV and XE series APs. Use to mount the AP horizontally.
C000000L141A	PoE, 60W, 56V, 10GbE DC Injector, Indoor, Energy Level 6 Supply, accepts C5 connector
N000000L034B	PoE injector, 30.5W, 56V, 5GbE DC Injector, Indoor, Energy Level 6 Supply, accepts C5 connector
N000900L031A	AC line cord, US Type B, 720mm, C5 connector
N000900L032A	AC line cord, EU Type F angled, 720mm, C5 connector
N000900L033A	AC line cord, UK Type G angled, 720mm, C5 connector
N000900L034A	AC line cord, BR Type N, 720mm, C5 connector
N000900L011A	AC line cord, AU Type I, 720mm, C5 connector
N000900L012A	AC line cord, IN Type D angled, 720mm, C5 connector
N000900L013A	AC line cord, AR Type I, 720mm, C5 connector
N000900L015A	AC line cord, CN Type I, 720mm, C5 connector

cnMaestro X Subscriptions	
MSX-SUB-XV3-8-1	cnMaestro X 1-year subscription for one XV3-8 AP. Creates one Device Tier3 slot. Includes Cambium Care Pro support. Order CCADV-UPG-XV3-8-1 for NBD advanced replacement hardware support.
MSX-SUB-XV3-8-3	cnMaestro X 3-year subscription for one XV3-8 AP. Creates one Device Tier3 slot. Includes Cambium Care Pro support. Order advanced replacement hardware support.
MSX-SUB-XV3-8-5	cnMaestro X 5-year subscription for one XV3-8 AP. Creates one Device Tier3 slot. Includes Cambium Care Pro support. Order advanced replacement hardware support.

Cambium Care Support	
CCADV-UPG-XV3-8-1	Cambium Care Advanced Add-on to cnMaestro X, 1-year support for one XV3-8. 24x7 TAC support, SW updates, and NBDS advance replacement for HW
CCADV-UPG-XV3-8-3	Cambium Care Advanced Add-on to cnMaestro X, 3-year support for one XV3-8. 24x7 TAC support, SW updates, and NBDS advance replacement for HW
CCADV-UPG-XV3-8-5	Cambium Care Advanced Add-on to cnMaestro X, 5-year support for one XV3-8. 24x7 TAC support, SW updates, and NBDS advance replacement for HW
CCADV-SUP-XV3-8-1	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
CCADV-SUP-XV3-8-3	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
CCADV-SUP-XV3-8-5	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
CCPRO-SUP-XV3-8-1	Cambium Care Pro, 1-year support for one XV3-8 Wi-Fi 6 AP. 24x7 TAC support and SW updates
CCPRO-SUP-XV3-8-3	Cambium Care Pro, 3-year support for one XV3-8 Wi-Fi 6 AP. 24x7 TAC support and SW updates
CCPRO-SUP-XV3-8-5	Cambium Care Pro, 5-year support for one XV3-8 Wi-Fi 6 AP. 24x7 TAC support and SW updates

<u>LIMITED WARRANTY</u>

Cambium Networks XE3-8 Wi-Fi 6 Access Point includes a limited lifetime
hardware warranty that extends 5 years after end of sale.

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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