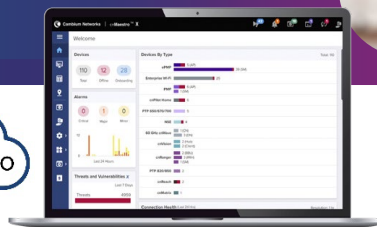# XV2-21X Wi-Fi 6 Access Point

802.11ax Dual-Radio Indoor Access Point

XV2-21X Quick Look:

- Dual-radio Wi-Fi 6
- 5 GHz (2x2), 2.4 GHz (2x2)
- 1 GbE RJ45 interface
- cnMaestro™ Network Management
- Limited lifetime warranty

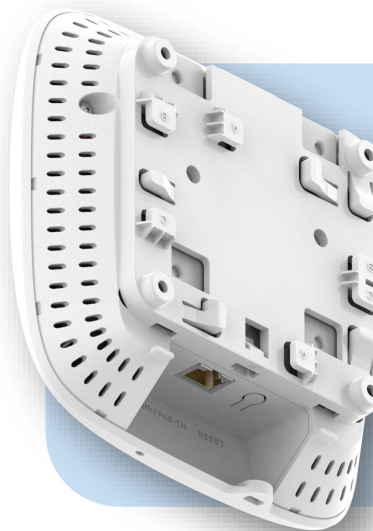## Value-Tier Wi-Fi for Any Market

Cambium Networks' XV2-21X Wi-Fi 6 Indoor Access Point (AP) delivers a high performance-to-price ratio attractive to any market.

The XV2-21X can be adopted and managed by any of the Cambium management systems, including cnMaestro Essentials and cnMaestro X, available in cloud and on-premises versions. Choose the management type you need and change it at any time.

Unlike other value-tier access points, the XV2-21X is never locked into just one management selection.

Designed for Fast Installation

The XV2-21X offers multiple installation methods included in the same shipping box. Mount the AP to a ceiling tile using the included steel plate; mount to an existing junction box with 83 mm center-to-center holes; twist lock the AP onto a 36 mm, 24 mm, and 14 mm T-bar; or simply mount it to any flat surface using the included wall anchors. No additional accessory brackets are needed

XV2-21X back panel with mounting bracket

XV2-21X Wi-Fi 6 Access Point

Specifications

Radios	**5 GHz** 802.11 a/n/ac/ax, 2x2:2 **2.4 GHz** 802.11 b/g/n/ax, 2x2:2	**Power**	802.3af or 802.3at powered device Consumption with typical load: 11W
Wi-Fi	802.11 a/b/g/n/ac/ax	**Dimensions**	155 mm x 155 mm x 37 mm (6.1 in x 6.1 in x 1.46 in) **With Bracket:** 155 x 155 x 46 mm (6.1 x 6.1 x 1.81 in)
SSID Security	WPA3-SAE, WPA3-Enterprise, WPA2 (CCMP, AES, 802.11i), WPA2 Enterprise (802.1x/EAP), OSEN, OWE, Open		
Max PHY Rate	**5 GHz radio** 2402 Mbps **2.4 GHz radio** 573.5 Mbps	**Weight**	475 g (1.05 lb)
		Mount Options	Wall or ceiling, T-bar with included locking bracket, ceiling tile plate
Ports	1 x IEEE 10/100/1000 Mbps	**Ambient Operation Temperature**	0°C to 50°C (32°F to 122°F)
Antenna Gain	**5 GHz** 6 dBi **2.4 GHz** 5 dBi	**Storage Temperature**	-40°C to 70°C (-40°F to 158°F)
FCC	Ch 1–11, 36–48, 52–64, 100–144, 149–165	**Humidity**	95% RH non-condensing
ISED	Ch 1–11, 36–48, 52–64, 100–116, 149–165	**MTBF**	831,902 hours at 50°C ambient
ETSI*	Ch 1–13, 36–48, 52–64, 100–140, 149–173	**LEDs**	Multi-color status LEDs, dimmable, on/off
ROW*	Ch 1–14, 36–48, 52–64, 100–144, 149–173	**Certifications** (compliance)	Wi-Fi Alliance, Passpoint 3.0, 802.11 a/b/e/g/i/k/n/r/u/v/w/ac/ax, FCC, IC, ETSI, CE, EN 60601-1-2, IEC60950, IEC62368, UL2043, EN 61373

*Individual country limits may apply. Please contact your regional sales manager for country-specific regulations. For Southeast Asia (SEA) countries, refer to the SEA Regulatory Details chart in this data sheet.

Standards

Wi-Fi Protocols	Data coding support 16/64/256/1024-QAM Channel width support under 5 GHz band: 20/40/80/160 MHz
	TWT, long OFDM symbol, transmit beamforming, 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/k/n/r/u/v/w

XV2-21X Wi-Fi 6 Access Point

Network Specifications

Operational Modes	Controllerless standalone cloud-managed cnMaestro, VM	**RF Management**	Multi-modal RF optimization supporting Auto-R for dynamic channel selection and dynamic power adjustment configured via cnMaestro, performed in the intelligent edge AP.
WLAN	128 concurrent clients per radio, 256 per AP 16 SSID per AP		RF monitor with channel utilization/packet error rate/interference.
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 2.0 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, DHCP Relay option 82, VLAN pooling, RADIUS attribute, VID VLAN per SSID per user, ePSK with VLAN assignment per PSK LLDP, IGMP v1, v2
Wi-Fi Quality of Service	802.11e/WMM (packet marking either with 802.1p or IP DSCP), WMM-PS, U-APSD Multicast to unicast conversion	**Network Tools**	Wired and wireless remote packet capture, logging, WAN speed test, ZapD, remote network connectivity tools
Service Availability	Critical network resource monitor with SSID shutdown	**Tunnel**	L2TPv2, L2GRE, PPPoE
Fast Roaming	802.11k/r/v, OKC, cnMaestro-assisted roam	**IP**	IPv4, IPv6
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	**VLAN**	802.11Q, max 4096
		Management Interfaces	HTTP/HTTPS web interface, SSH, Telnet SNMP V1, V2, V3 Syslog, SNMP traps, NTP
		Security	Rogue AP detection and termination(X), 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, SNMP traps, SNMPv1, SNMPv2c, SNMPv3, TCP and DNS logging
Accounting	RADIUS accounting, load balancing AAA servers, Dynamic Authorization COA, DM		
API	RESTful management and statistics API via cnMaestro X, presence location push APIs		

*X features available in cnMaestro X.

XV2-21X Wi-Fi 6 Access Point

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.
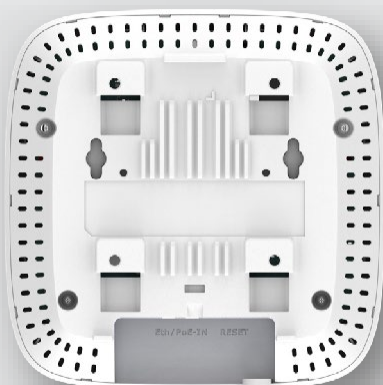
Find out more about cnMaestro
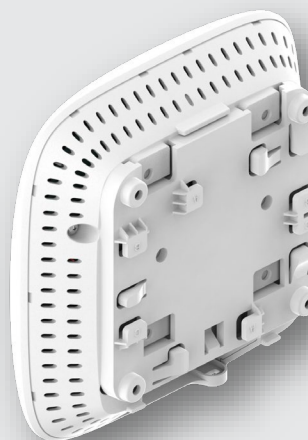
XV2-21X Wi-Fi 6 Access Point

Front

Front Oblique

Back Panel

Bottom/Ports

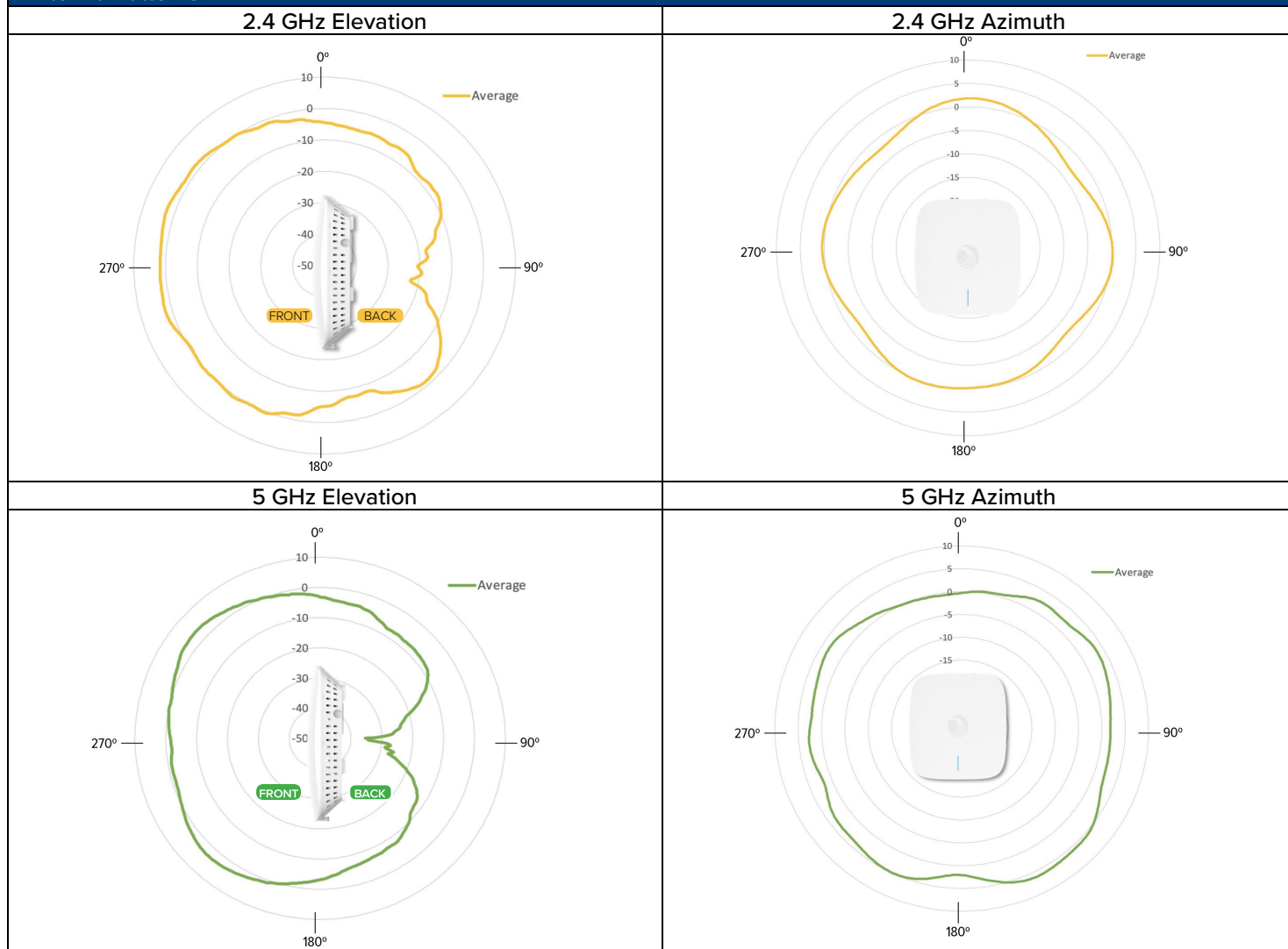Front Panel with
Mounting Bracket

Back Panel with
Mounting Bracket

XV2-21X Wi-Fi 6 Access Point

Antenna Patterns

2.4 GHz Elevation	2.4 GHz Azimuth

5 GHz Elevation	5 GHz Azimuth

2.4 GHz Receive Sensitivity (dBm) per Chain

HT20		HT40	
MCS0	-95.5	MCS0	-93
MCS7	-76.5	MCS7	-74
HE20		**HE40**	
MCS0	-95.5	MCS0	-92.5
MCS7	-76.5	MCS7	-73.5

2.4 GHz TX Power Target

Rate	Pout (dBM)
MCS0 HT20	27
MCS7 HT20	25
MCS8 VHT20	25
MCS9 VHT40	24
MCS11 HE40	23

5 GHz Receive Sensitivity (dBm) per Chain

VHT20		VHT40		VHT80		VHT160	
MCS0	-95.5	MCS0	-94	MCS0	-90	MCS0	-87.5
MCS7	-77	MCS7	-74	MCS7	-71.5	MCS7	-69
HE20		**HE40**		**HE80**		**HE160**	
MCS0	-95.5	MCS0	-93.5	MCS0	-90.5	MCS8	-65
MCS7	-76.5	MCS7	-74	MCS7	-71.5	MCS11	-57

5 GHz TX Power Target

Rate	Pout (dBm)
MCS0 VHT20	27
MCS7 VHT20	24
MCS0 VHT40, VHT80	27, 27
MCS7 VHT40, VHT80	24, 24
MCS11, HE20, HE40, HE80, HE160	22, 22, 22, 21

XV2-21X Wi-Fi 6 Access Point

XV2-21X Ordering Information	
Regulatory Model	XV2-21X
XV2-21X0A00-US	XV2-21X Indoor Dual radio WiFi 6 AP, 2x2, GbE, US
XV2-21X0A00-EU	XV2-21X Indoor Dual radio WiFi 6 AP, 2x2, GbE, EU
XV2-21X0A00-RW	XV2-21X Indoor Dual radio WiFi 6 AP, 2x2, GbE, RW
XV2-21X0A00-CA	XV2-21X Indoor Dual radio WiFi 6 AP, 2x2, GbE, CA
C000000L141A	PoE, 60W, 56V, 10GbE DC Injector, Indoor, Energy Level 6 Supply
N000000L034B	PoE, 30.5W, 56V, GbE DC Injector, Indoor, Energy Level 6 Supply, accepts C5 connector
N000900L017A	PoE, 15.4W, 56V, GbE DC Injector, Indoor, Energy Level 6 Supply, accepts C5 connector
XA-DROPTILE15	Recessed ceiling tile Installation Kit for 15mm T-bar, 20mm drop extension. 5 Pack
XA-DROPTILE24	Recessed ceiling tile Installation Kit for 24mm T-bar, 20mm drop extension. 5 Pack

cnMaestro X Subscriptions	
MSX-SUB-XV2-21X-1	cnMaestro X for one XV2-21X AP. Creates one Device Tier 3 slot. Includes Cambium Care Pro support. 1-year subscription
MSX-SUB-XV2-21X-3	cnMaestro X for one XV2-21X AP. Creates one Device Tier 3 slot. Includes Cambium Care Pro support. 3-year subscription
MSX-SUB-XV2-21X-5	cnMaestro X for one XV2-21X AP. Creates one Device Tier 3 slot. Includes Cambium Care Pro support. 5-year subscription

Cambium Care Support	
CCADV-SUP-XV2-21X-1	Cambium Care Advanced, 1-year support for one XV2-21X Wi-Fi 6/6E AP. 24x7 TAC support, SW updates, and NBD advance replacement for HW
CCADV-SUP-XV2-21X-3	Cambium Care Advanced, 3-year support for one XV2-21X Wi-Fi 6/6E AP. 24x7 TAC support, SW updates, and NBD advance replacement for HW
CCADV-SUP-XV2-21X-5	Cambium Care Advanced, 5-year support for one XV2-21X Wi-Fi 6/6E AP. 24x7 TAC support, SW updates, and NBD advance replacement for HW
CCPRO-SUP-XV2-21X-1	Cambium Care Pro, 1-year support for one XV2-21X Wi-Fi 6/6E AP. 24x7 TAC support and SW updates
CCPRO-SUP-XV2-21X-3	Cambium Care Pro, 3-year support for one XV2-21X Wi-Fi 6/6E AP. 24x7 TAC support and SW updates
CCPRO-SUP-XV2-21X-5	Cambium Care Pro, 5-year support for one XV2-21X Wi-Fi 6/6E AP. 24x7 TAC support and SW updates
CCADV-UPG-XV2-21X-1	Cambium Care Advanced Add-on to cnMaestro X, 1-year support for one XV2-21X. 24x7 TAC support, SW updates, and NBDS advance replacement for HW
CCADV-UPG-XV2-21X-3	Cambium Care Advanced Add-on to cnMaestro X, 3-year support for one XV2-21X. 24x7 TAC support, SW updates, and NBDS advance replacement for HW
CCADV-UPG-XV2-21X-5	Cambium Care Advanced Add-on to cnMaestro X, 5-year support for one XV2-21X. 24x7 TAC support, SW updates, and NBDS advance replacement for HW

XV2-21X Wi-Fi 6 Access Point

EIRP is limited to the countries listed below.

SE Asia Regulatory Details					
	2.4 GHz (EIRP)	5 GHz (EIRP)			
Country	2400–2483.5 MHz	5150–5250 MHz	5250–5350 MHz	5470–5725 MHz	5725–5825 MHz
Indonesia	27 dBm (500mW) indoor	23 dBm (200mW) indoor	23 dBm (200mW) indoor	Not supported	23 dBm (200mW) indoor,
	36 dBm (4W) outdoor				36 dBm (4W) outdoor
Vietnam	23 dBm (200mW)	23 dBm (200mW)	23 dBm (200mW)	30 dBm (1W)	30 dBm (1W)
Philippines	26 dBm (400mW)	26 dBm (400mW)	26 dBm (400mW)	26 dBm (400mW)	26 dBm (400mW)
Malaysia*	27 dBm (500mW)	30 dBm (1W) indoor	30 dBm (1W) indoor	5470–5650 MHz	30 dBm (1W)
		23 dBm (200mW) outdoor		30 dBm (1W)	
Singapore	23 dBm (200mW)	23 dBm (200mW)	23 dBm (200mW)	30 dBm (1W)	30 dBm (1W)
Thailand	20 dBm (100mW)	23 dBm (200mW)	23 dBm (200mW)	30 dBm (1W)	30 dBm (1W)

*Malaysia restricts the use of 5650 MHz–5725 MHz for regulatory reasons.

LIMITED WARRANTY

Cambium Networks XV2-21X 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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