

802.11ax Dual-Radio Indoor Access Point



### Value-Tier Wi-Fi for Any Market

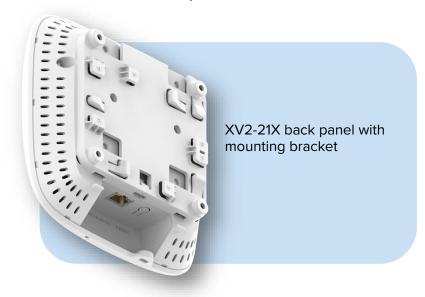
Cambium Networks' XV2-21X Wi-Fi 6 Indoor Access Point (AP) delivers a high performance-to-price ratio attractive to any market.

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





Specifications				
Radios	<b>5 GHz</b> 802.11 a/n/ac/ax, 2x2:2	Power	802.3af or 802.3at powered device Consumption with typical load: 11W	
	<b>2.4 GHz</b> 802.11 b/g/n/ax, 2x2:2			
Wi-Fi	802.11 a/b/g/n/ac/ax	Dimensions	155 mm x 155 mm x 37 mm	
SSID Security	WPA3-SAE, WPA3-Enterprise, WPA2		(6.1 in x 6.1 in x 1.46 in)	
	(CCMP, AES, 802.11i), WPA2 Enterprise		With Bracket:	
	(802.1x/EAP), OSEN, OWE, Open		155 x 155 x 46 mm	
			$(6.1 \times 6.1 \times 1.81 \text{ in})$	
Max PHY Rate	5 GHz radio 2402 Mbps	Weight	475 g (1.05 lb)	
	<b>2.4 GHz radio</b> 573.5 Mbps	Mount Options	Wall or ceiling, T-bar with included locking	
	2.4 OF 12 Tudio 373.3 Misps		bracket, ceiling tile plate	
Ports	1 x IEEE 10/100/1000 Mbps	Ambient Operation	0°C to 50°C (32°F to 122°F)	
		Temperature		
Antenna Gain	<b>5 GHz</b> 6 dBi	Storage	-40°C to 70°C (-40°F to 158°F)	
	<b>2.4 GHz</b> 5 dBi	Temperature		
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	Wi-Fi Alliance, Passpoint 3.0,	
		(compliance)	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	

<sup>\*</sup>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



Network Specif	ications			
Operational Modes	Controllerless standalone cloud-managed cnMaestro, VM	RF Management	Multi-modal RF optimization supporting Auto- 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	128 concurrent clients per radio, 256 per AP 16 SSID per AP			
Security,	Open, WPA2-AES with PSK, ePSK and	Band Steering	Yes	
Authentication Encryption	Enterprise	Mesh	Multi-hop, either band	
, p	WPA3 with PSK (WPA3-SAE), ePSK, Enterprise, Enterprise-CNSA, OWE	Scheduled WLAN	On/off by day, week, time of day	
	(Enhanced Open)	Data Limit	Client bitrate/time/throughput limit per SSID	
	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	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	Tunnel	L2TPv2, L2GRE, PPPoE	
	shutdown			
Fast Roaming	802.11k/r/v, OKC, cnMaestro-assisted roam	IP	IPv4, IPv6	
Guest Access/	cnMaestro-hosted EasyPass portal	VLAN	802.11Q, max 4096	
Captive Portal Service (EasyPass)*	Multiple authentication methods supported to onboard guest user:	Management Interfaces	HTTP/HTTPS web interface, SSH, Telnet SNMP V1, V2, V3	
	Radius-based authentication  Click through with simple torms and		Syslog, SNMP traps, NTP	
	<ul> <li>Click-through with simple terms and conditions acceptance</li> <li>Social login using Google®, Facebook®</li> <li>SMS-based authentication (X)</li> <li>Voucher-based access</li> </ul>	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	
	<ul> <li>Microsoft® Azure AD and Google Workspace® (X)</li> <li>Sponsored guest access (X)</li> <li>Self-registration access (X) cnMaestro API support for external captive portal integration</li> <li>802.11u, Hotspot 2.0</li> </ul>	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			

 $<sup>^*</sup>X$  features available in cnMaestro X.



### 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

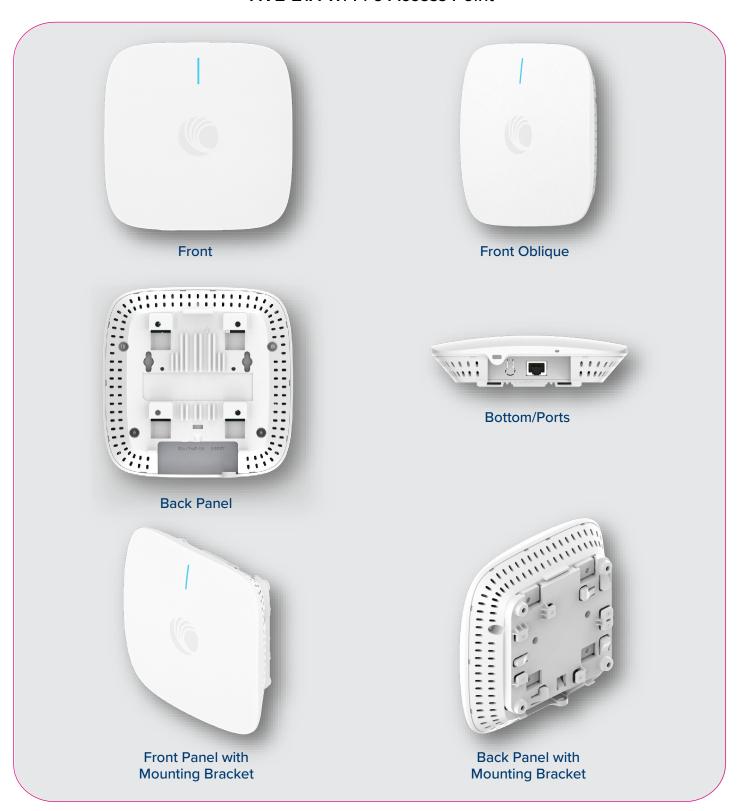
- Self-registration: Form-based access
- Sponsored guest: Guest ambassador-based access
- Paid access: Monetize the Wi-Fi access
- Microsoft Azure: Corporate user login
- Google Login: Web login using Google accounts

#### 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









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		

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	

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 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 Ordering	XV2-21X Ordering Information				
Regulatory Model	XV2-21X				
XV2-21X0B00-US	XV2-21X Indoor Dual radio WiFi 6 AP, 2x2, GbE, US				
XV2-21X0B00-EU	XV2-21X Indoor Dual radio WiFi 6 AP, 2x2, GbE, EU				
XV2-21X0B00-RW	XV2-21X Indoor Dual radio WiFi 6 AP, 2x2, GbE, RW				
XV2-21X0B00-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 Subso	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 subscription					
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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 Sup	port
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



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 36 dBm (4W) outdoor	23 dBm (200mW) indoor	23 dBm (200mW) indoor	Not supported	23 dBm (200mW) indoor, 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 23 dBm (200mW) outdoor	30 dBm (1W) indoor	5470–5650 MHz 30 dBm (1W)	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)	

<sup>\*</sup>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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