

802.11ax Dual-Radio, 2x2, 120° Sector Antenna, Long-Range

## XV2-2T1 Wi-Fi 6 Outdoor AP Quick Look

- Dual-radio 802.11ax
- 2.5 GbE uplink Ethernet
- 1 GbE with power out
- Outdoor IP67 rated, -40°C to 65°C
- High-efficiency 120° sector antenna



## Outdoor Wi-Fi 6 Designed for Greater Range and Speed

The XV2-2T1 is a dual radio Wi-Fi 6 access point (AP) designed for outdoor deployments in campus networks, smart city deployments, public venues, and industrial applications. Its high-efficiency antennas deliver superior long-range coverage up to 1 km distance or more, significantly reducing the amount of equipment needed to cover large outdoor areas.

The XV2-2T1 delivers 48VDC PoE or Cambium 30VDC power out via the secondary gigabit Ethernet port. This is ideal for connecting the XV2-2T1 to any IP and Ethernet device, such as a security IP camera, another Wi-Fi access point, or Cambium fixed wireless subscriber modules.

For outdoor deployments, the IEEE 802.11ax standard delivers greater range by boosting the RF frame preamble by 3dB and improved signal quality with increased guard interval vs previous Wi-Fi technology. The XV2-2T1 is fully backward compatible with existing Wi-Fi technology and prepares a network for higher growth and greater density of Wi-Fi connected devices.

## Cloud or On-Premises Management

The XV2-2T1 is supported by Cambium's ONE Network enterprise architecture managed by the cnMaestro™ Network Management System. cnMaestro uses a distributed intelligence architecture with cloud-first management and edge-intelligent Wi-Fi that self-optimizes for the RF environment. 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.

©2024 Cambium Networks, Inc. 1 cambiumnetworks.com



	Access Point Specifications			
Radios	<b>5 GHz:</b> 802.11 a/n/ac, 2x2	Power	Max power 20W, 802.3at powered device	
	<b>2.4 GHz:</b> 802.11 b/g/n/ax, 2x2		Up to 50W when powering an auxiliary	
	BLE 4.1		device	
Wi-Fi	802.11 a/b/g/n/ac/ax	Dimensions	582 mm x 200 mm x 80 mm (22.91 in x 7.87 in x 3.15 in)	
SSID	WPA3-AES, WPA3-Enterprise, WPA2 (CCMP, AES,	Weight	2,700 g (5.95 lb)	
Security	802.11i), WPA2-Enterprise (802.1X/EAP), OSEN, OWE, Open	Security	Kensington lock slot	
Ports	1 x IEEE 100/1000/2500 Mbps	Mount Options	Pole or wall mounting.	
	1 x IEEE 10/100/1000 Mbps Ethernet with SW configurable passive PoE output of 30V or 48V up to 30 watts		Pole diameter: Minimum 30 mm / maximum 75 mm	
Antenna Gain	<b>5 GHz:</b> 13.5 dBi, sector	Ambient Operation	-40°C to 65°C (-40°F to 149°F)	
	2.4 GHz: 11 dBi, sector	Temperature		
Antenna Detail	<b>2.4 &amp; 5 GHz:</b> 90° @ -3dB; 120° @ -6dB, 2° downtilt	Storage Temperature	-40°C to 70°C (-40°F to 158°F)	
Max EIRP*	<b>5 GHz:</b> 36 dBm	Humidity	95% RH non-condensing	
	<b>2.4 GHz:</b> 36 dBm			
Max PHY Rate	<b>5 GHz radio</b> : 1,201 Mbps	MTBF	@25°C = 674,966 hours	
	<b>2.4 GHz radio:</b> 573.5 Mbps		@65°C = 197,106 hours	
Fiter LTE Band	38, 40	LEDs	Multi-color status LEDs	
FCC	Ch 1–11, 36–48, 52–64, 100–144, 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 62368-1	
ISED	Ch 1–11, 36–48, 52–64, 100–116, 149–165	(	Safety, EN 60601-1-2 Medical, EN 61000-4-2/3/5 Immunity, EN 50121-1 Railway EMC,	
ETSI*	Ch 1–13, 36–64, 52–64, 100–140, 149-173		EN 50121-4 Railway Immunity, IEC 61373 Railway Shock & Vibration, EN 62311	
ROW*	Ch 1–14, 36–48, 52–64, 100–144, 149–177		Human Safety/RF Exposure, WEEE & RoHS	

<sup>\*</sup>Individual country limits may apply.

St		n	3	40
	М	ш	JC	

Wi-Fi Protocols VHT MCS rates, 16/64/256/1024-QAM, 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/k/n/r/u/v/w



Network Spe	Controllerless standalone	RF	Multi modal DE antimization augnorities	
Operational Modes WLAN	Cloud or on-premises cnMaestro  1,024 concurrent clients per AP	кг 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.	
	16 SSIDs per AP		RF monitor with channel utilization/ packet error rate / interference.	
Security Authentication	Open, WPA2-AES with PSK, ePSK and Enterprise	Band Steering	Yes	
Encryption	WPA3 with PSK (WPA3-SAE), ePSK, Enterprise,	Mesh	Multi-hop, either band	
	Enterprise-CNSA, OWE (Enhanced Open) OSEN and PMF (802.11 W)	Scheduled WLAN	On/off by day, week, time of day	
	MAC authentication with local database or external	Data Limit	Client bitrate/time/throughput limit per SSID	
	database using RADIUS protocol  802.1X with EAP-TTLS, EAP-TLS / MSCHAPv2, PEAPv0 / PEAPv1 / EAP-PEAP / EAP- SIM/AKA/AKA'/FAST  Hotspot WEB authentication	Network	LACP (802.3ad), 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	
Wi-Fi Quality of Service	WMM (packet marking either with 802.1p or IP DSCP), WMM-PS, U-APSD	Network Tools	Wired and wireless remote packet capture, logging, WAN speed test, ZapD, remote network connectivity tools	
	Multicast to unicast conversion		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/	cnMaestro-hosted EasyPass portal	VLAN	802.11Q, max 4096	
Captive Portal*	Multiple authentication methods supported to onboard guest user:	Management interfaces	HTTP / HTTPS web interface, SSH, Telnet	
	<ul> <li>Radius-based authentication</li> <li>Click-through with simple terms and conditions</li> </ul>	Security	Rogue AP detection and termination, WIDs/WIPs, DoS protection	
	<ul> <li>acceptance</li> <li>Social login using Google®, Facebook®</li> <li>SMS-based authentication (X)</li> </ul>		L2–L7 firewall with application visibility(X) & control(X), DNS based access control(X).	
	Voucher-based access		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)</li> </ul>	Services	Wi-Fi Calling control, NTP, Syslog, DNS proxy, auto-off on WAN failure, SNMP traps SNMPv1, SNMPv2c, SNMPv3	
	cnMaestro API support for external captive portal integration 802.11u, Hotspot 2.0			
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 under 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



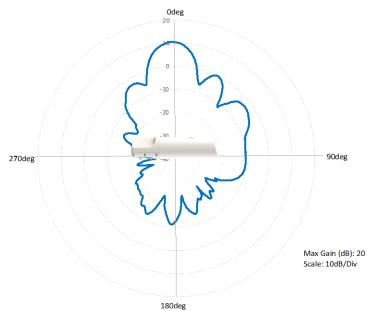




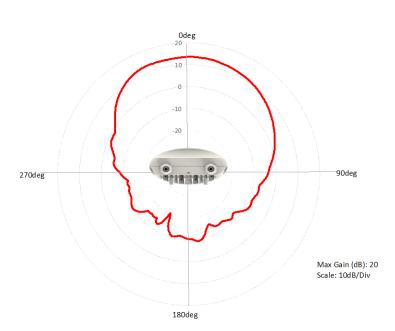
## Antenna Patterns



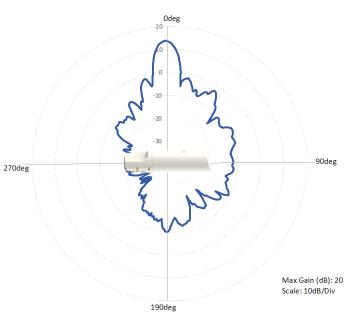
## 2.4 GHz Elevation



## 5 GHz Azimuth



#### 5 GHz Elevation





Ordering Information	on
Regulatory Model	XV2-2T1
XV2-2T1XA00-US	XV2-2T1 Dual-Radio Wi-Fi 6. Outdoor (FCC) 802.11ax 2x2, 120° Sector, US
XV2-2T1XA00-CA	XV2-2T1 Dual-Radio Wi-Fi 6. Outdoor (IC) 802.11ax 2x2, 120° Sector, CA
XV2-2T1XA00-EU	XV2-2T1 Dual-Radio Wi-Fi 6. Outdoor (ETSI) 802.11ax 2x2, 120° Sector, EU
XV2-2T1XA00-RW	XV2-2T1 Dual-Radio Wi-Fi 6. Outdoor 802.11ax 2x2, 120° Sector, RW
C000000L141A	PoE, 60W, 56V, 10GbE DC Injector, Indoor, Energy Level 6 Supply, accepts C5 connector
N00000L034B	PoE injector, 30.5W, 56V, 5GbE DC Injector, Indoor, Energy Level 6 Supply, accepts C5 connector
N000900L031A	AC line cord, US Type B, 720 mm, C5 connector
N000900L032A	AC line cord, EU Type F angled, 720 mm, C5 connector
N000900L033A	AC line cord, UK Type G angled, 720 mm, C5 connector
N000900L034A	AC line cord, BR Type N, 720 mm, C5 connector
N000900L011A	AC line cord, AU Type I, 720 mm, C5 connector
N000900L012A	AC line cord, IN Type D angled, 720 mm, C5 connector
N000900L013A	AC line cord, AR Type I, 720 mm, C5 connector
N000900L015A	AC line cord, CN Type I, 720 mm, C5 connector
N000900L048A	AC line cord, ZA Type M angled, 720 mm, C5 connector

cnMaestro X Ordering Information	
MSX-SUB-XV2-2T1-1	cnMaestro X for Enterprise: Advanced management and includes Cambium Care Pro Support; 1-year term
MSX-SUB-XV2-2T1-3	cnMaestro X for Enterprise: Advanced management and includes Cambium Care Pro Support; 3-year term
MSX-SUB-XV2-2T1-5	cnMaestro X for Enterprise: Advanced management and includes Cambium Care Pro Support; 5-year term

Cambium Care Orde	ering Information
CCADV-SUP-XV2-2T1-1	Cambium Care Advanced, 1-year support for one XV2-2T1 Wi-Fi 6 AP. 24x7 TAC support, SW updates, and NBD
	advance replacement for HW
CCADV-SUP-XV2-2T1-3	Cambium Care Advanced, 3-year support for one XV2-2T1 Wi-Fi 6 AP. 24x7 TAC support, SW updates, and NBD
	advance replacement for HW
CCADV-SUP-XV2-2T1-5	Cambium Care Advanced, 5-year support for one XV2-2T1 Wi-Fi 6 AP. 24x7 TAC support, SW updates, and NBD
	advance replacement for HW
CCADV-UPG-XV2-2T-1	Cambium Care Advanced Add-on to cnMaestro X, 1-year support for one XV2-2T1. 24x7 TAC support, SW updates,
	and NBDS advance replacement for HW
CCADV-UPG-XV2-2T-3	Cambium Care Advanced Add-on to cnMaestro X, 3-year support for one XV2-2T1. 24x7 TAC support, SW updates,
	and NBDS advance replacement for HW
CCADV-UPG-XV2-2T-5	Cambium Care Advanced Add-on to cnMaestro X, 5-year support for one XV2-2T1. 24x7 TAC support, SW updates,
	and NBDS advance replacement for HW
CCPRO-SUP-XV2-2T-1	Cambium Care Pro, 1-year support for one XV2-2T Wi-Fi 6 AP. 24x7 TAC support and SW updates
CCPRO-SUP-XV2-2T-3	Cambium Care Pro, 3-year support for one XV2-2T Wi-Fi 6 AP. 24x7 TAC support and SW updates
CCPRO-SUP-XV2-2T-5	Cambium Care Pro, 5-year support for one XV2-2T Wi-Fi 6 AP. 24x7 TAC support and SW updates

©2024 Cambium Networks, Inc. 7 cambiumnetworks.com



## **LIMITED WARRANTY**

Cambium Networks XV2-2T1 Wi-Fi 6 Access Point includes a 3-year hardware warranty.

#### **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.

cambiumnetworks.com

12302024