

# XE5-8 Wi-Fi 6/6E Indoor Access Point

802.11ax Five-Radio Tri-Band 8x8/4x4 High-density Access Point

## QUICK LOOK:

- **Five-radio Tri-Band W-Fi 6 and 6E**
- **15.6 Gbps aggregate data rate**
- **Dual software-defined 5 GHz/6 GHz radios**
- **Dual 5 GbE uplink ports**
- **Microsoft Azure and Google G Suite integration**



## Wi-Fi Built for the Future

The XE5-8 is a five-radio Wi-Fi 6/6E 8x8/4x4 access point (AP) designed to deliver high-density, future-proof performance for building next generation wireless networks. With five user servicing radios, the XE5-8 delivers the highest density Wi-Fi 6 solution in the industry. Wi-Fi 6E support extends the capacity of Wi-Fi into the 6 GHz band, more than tripling the wireless spectrum available. With high-speed software-defined radios, the XE5-8 enables seamless transition to Wi-Fi 6E with the ability to easily change from dual-band to tri-band (2.4 GHz, 5 GHz, 6 GHz) support when sufficient 6 GHz clients are available. The XE5-8 is fully backward compatible with existing Wi-Fi technology, enabling simultaneous support of new high speed clients, legacy clients, low-bitrate IoT devices, and more in a single wireless infrastructure.

The XE5-8 comes with a Limited Lifetime Warranty providing return and repair service of the AP from date of purchase until the end of life of the product.

## Cloud and on-premises management

XE5-8 operates with either Cambium Networks' XMS or cnMaestro™ management system. Choose the management system that best fits your needs and use the latest technology from Cambium Networks.



cnMaestro



XMS

### cnMaestro™ Essentials and X

- Fixed Wireless Broadband, Wi-Fi and Switching
- Help desk troubleshooting tools
- Cloud-managed guest access

### XMS-Cloud

- Wi-Fi and Switching
- Real-time and historical analytics
- EasyPass™ user and device onboarding
- Application visibility and control

## XE5-8 Wi-Fi 6/6E Indoor Access Point

### Access Point Specifications

*Note: Some features will be included on subsequent firmware releases.*

<p><b>FCC</b> Ch 1–11, 36–48, 52–64, 100–144, 149–165</p> <p><b>ISED</b> Ch 1–11, 36–48, 52–64, 100–144, 149–165</p> <p><b>ETSI</b> Ch 1–13, 32–48, 52–64, 100–144</p> <p><b>ROW</b> (Individual country limits may apply) Ch 1–14, 36–48, 52–64, 100–144, 149–173</p> <p><b>6 GHz Channels</b> <b>FCC/IC/ROW</b> Ch 1–233 <b>EU</b> Ch 1–93</p> <p><b>Radios</b>      <b>Two:</b> 4x4 5/6 GHz 802.11a/n/ac/ax, SW configurable to 5 or 6GHz operation <b>Two:</b> 4x4 5 GHz 802.11a/n/ac/ax, SW configurable to one 8x8 radio <b>One:</b> 4x4 2.4 GHz 802.11 b/g/n/ax BLE 4.1</p> <p><b>Wi-Fi</b>            802.11 a/b/g/n/ac Wave 2/ax</p> <p><b>SSID Security</b>    WPA3, WPA2 (CCMP, AES, 802.11i), WPA2 Enterprise (802.1x/EAP), WPA PSK (TKIP), WEP, Open</p> <p><b>Ports</b>            2 x IEEE 10/100/1000/2500/5000 Mbps Ethernet 1 x USB 3.0</p> <p><b>Antenna</b>        <b>6 GHz:</b> 4 dBi, Omni <b>5 GHz:</b> 5 dBi, Omni <b>2.4 GHz:</b> 5 dBi, Omni</p> <p><b>Max EIRP</b>        <b>6 GHz:</b> 30 dBm <b>5 GHz:</b> 32 dBm <b>2.4 GHz:</b> 31 dBm</p>	<p><b>Power</b>            Max 59W 802.3bt powered device</p> <p><b>Dimensions</b>    300 mm x 300 x 58 mm (without bracket) (11.81 in x 11.81 x 2.28 in )</p> <p><b>Weight</b>            1.8 kg (3.97 lbs)</p> <p><b>Security</b>          Kensington lock slot</p> <p><b>LEDs</b>              Multi-color status LEDs</p> <p><b>Ambient Operating Temperature</b>    0°C to 50°C (32°F to 122°F)</p> <p><b>Storage Temperature</b>                -40°C to 70°C (-40°F to 158°F)</p> <p><b>Humidity</b>         95% RH non-condensing</p> <p><b>MTBF</b>             2,198,639 hours 25°C 791,890 hours at 50°C</p> <p><b>Mount Options</b>    Wall or ceiling, T-bar with included locking bracket, ceiling tile plate</p> <p><b>Certifications (Compliance)</b>        FCC, IC, CE, EN 60601-1-2, EN 60950-1, IEC 62368-1 Safety, EN 60601-1-2 Medical EMC, EN 61000-4-2/3/5 Immunity, EN 50121-1 Railway EMC, EN 50121-4 Railway EMC, IEC 61373 Railway Shock &amp; Vibration, EN 62311 Human Safety/RF Exposure, WEEE &amp; RoHS</p>
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### Max Data Rate

Radio Type	Band	Number of Radios	Max Data Rate Per Radio	Max Data Rate Total
<b>4x4 SW-Defined</b>	5 or 6 GHz	2	4.804 Gbps	9.608 Gbps
<b>4x4</b>	5 GHz	2	2.402 Gbps	4.804 Gbps
<b>4x4</b>	2.4 GHz	1	1.147 Gbps	1.147 Gbps
<b>Total</b>		<b>5</b>		<b>15.559 Gbps</b>

## XE5-8 Wi-Fi 6/6E Indoor Access Point

### Management

*Note: Some features will be included on subsequent firmware releases.*



**Cambium Networks 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 Networks XMS** leverages intelligent APs with an embedded edge controller to deliver edge services at any network density. 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	cnMaestro Management
<b>Deployment</b>	Xirrus Management System (XMS-Cloud)	cnMaestro Cloud, cnMaestro on-premises
<b>Services</b>	Deep Packet Inspection (DPI) Application Visibility and Control for 2,000+ apps EasyPass Access Services	Monetized 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 EasyPass, Guest Ambassador 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 or hosted on site AP 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 Credit Card Merchant billing, ePSK, Vouchers
<b>Accounting</b>	RADIUS accounting, load balancing AAA servers, Dynamic Authorization COA, DM	

## XE5-8 Wi-Fi 6/6E Indoor Access Point

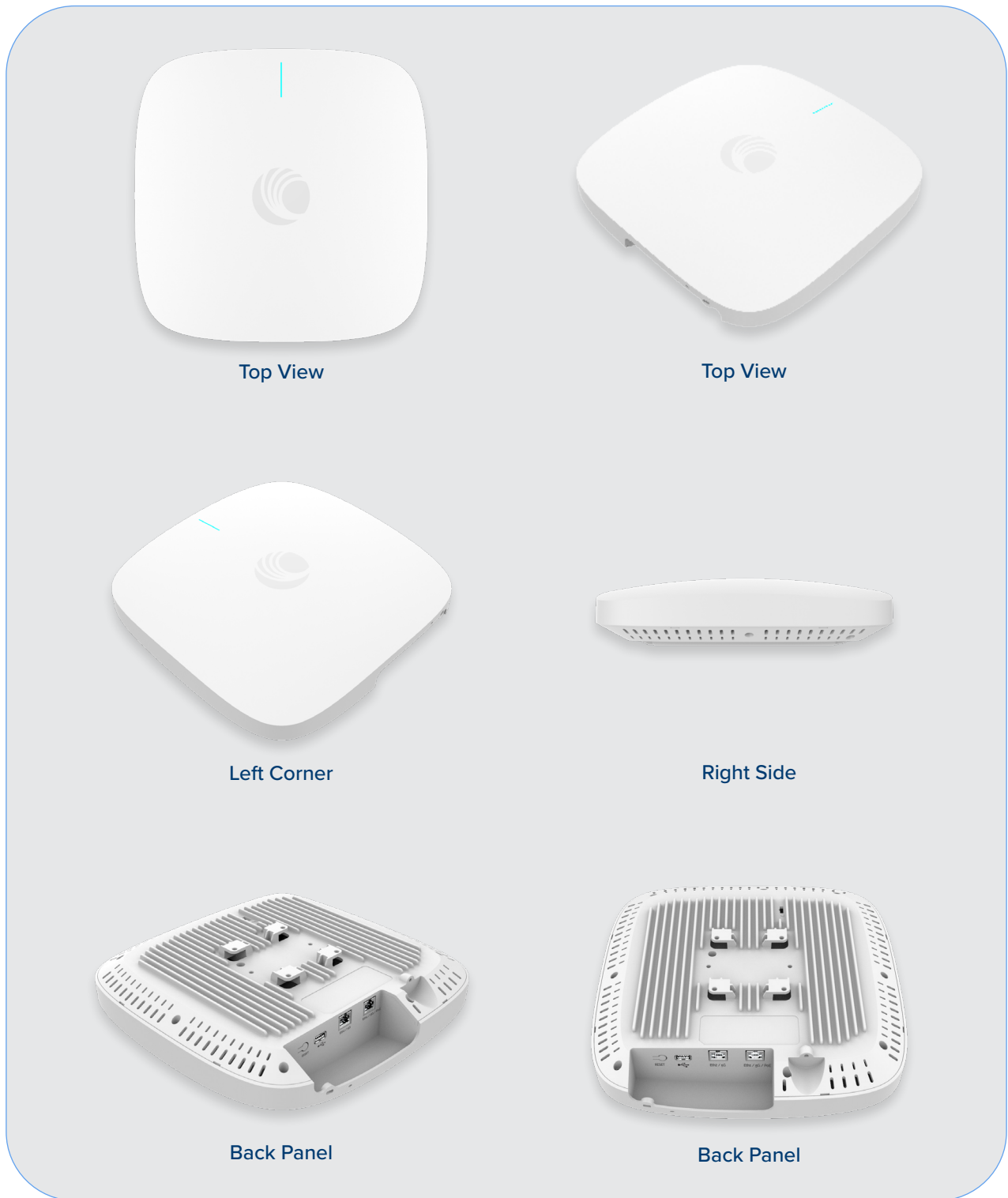
### Network Specifications

<b>Operational Modes</b>	Controllerless standalone Cloud managed cnMaestro or VM Cloud managed XMS	<b>Mesh</b>	Multi-hop, either band
<b>WLAN</b>	2500 clients per AP, 16 SSIDs WPA-TKIP, WPA2 AES, WPA3 SAE, WPA3 Enterprise, 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 in XMS-Cloud or cnMaestro VM 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>	Hotspot 2.0 802.1x 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>Accounting</b>	RADIUS accounting, multiple AAA	<b>Band Steer Load Balance</b>	Yes
<b>Scheduled WLAN</b>	On/off by day, week, time of day	<b>Tunnel</b>	L2TPv2, L2GRE, PPPoE
<b>Guest Access</b>	EasyPass guest self-registration, guest Ambassador, ePSK or UPSK, Vouchers, Rate Limit, Splash page hosted in XMS-Cloud, cnMaestro, or on AP Client isolation per SSID, per network	<b>Network and RF Management Tools</b>	Wired and wireless remote packet capture, ZapD performance tool, rogue AP detection
<b>Data Limit</b>	Client rate per SSID	<b>Services</b>	NTP, Syslog, SNMP traps, DNS proxy, auto-off on WAN failure
<b>Subscriber QoS</b>	WMM	<b>API</b>	RESTful management and statistics API Presence location APIs
<b>Fast Roaming</b>	802.11r, OKC, assisted roaming		

### Standards

<b>Wi-Fi Protocols</b>	VHT MCS rates, 16/64/256/1024/4096-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

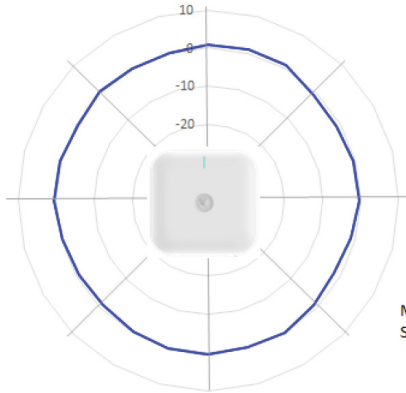
### XE5-8 Wi-Fi 6/6E Indoor Access Point



# XE5-8 Wi-Fi 6/6E Indoor Access Point

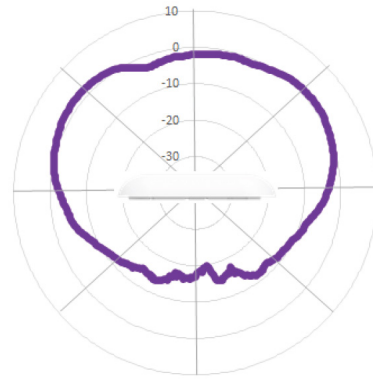
## Antenna Patterns

4x4 2.4 GHz Azimuth



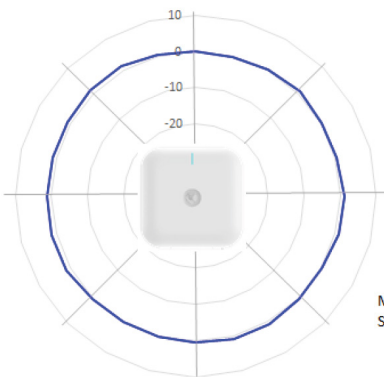
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Scale: 10dB/Div

4x4 2.4 GHz Elevation



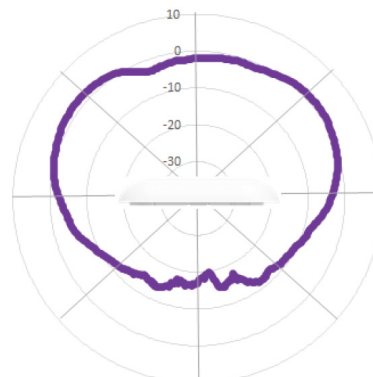
Max Gain (dB): 10  
Scale: 10dB/Div

4x4 5 GHz Azimuth



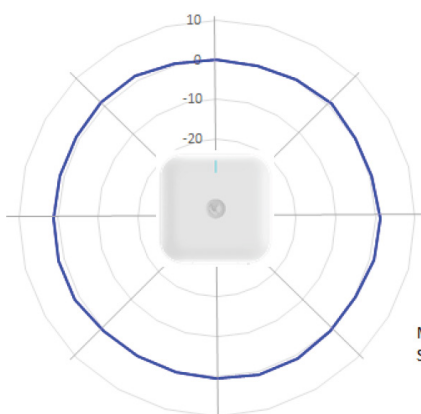
Max Gain (dB): 10  
Scale: 10dB/Div

4x4 5 GHz Elevation



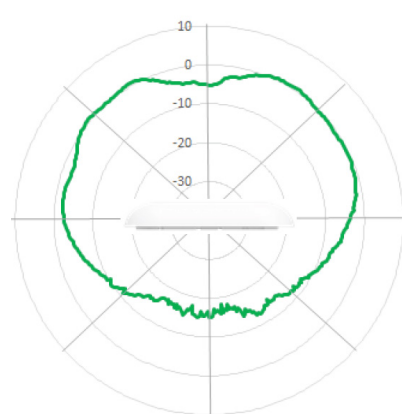
Max Gain (dB): 10  
Scale: 10dB/Div

8x8 5 GHz Azimuth



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

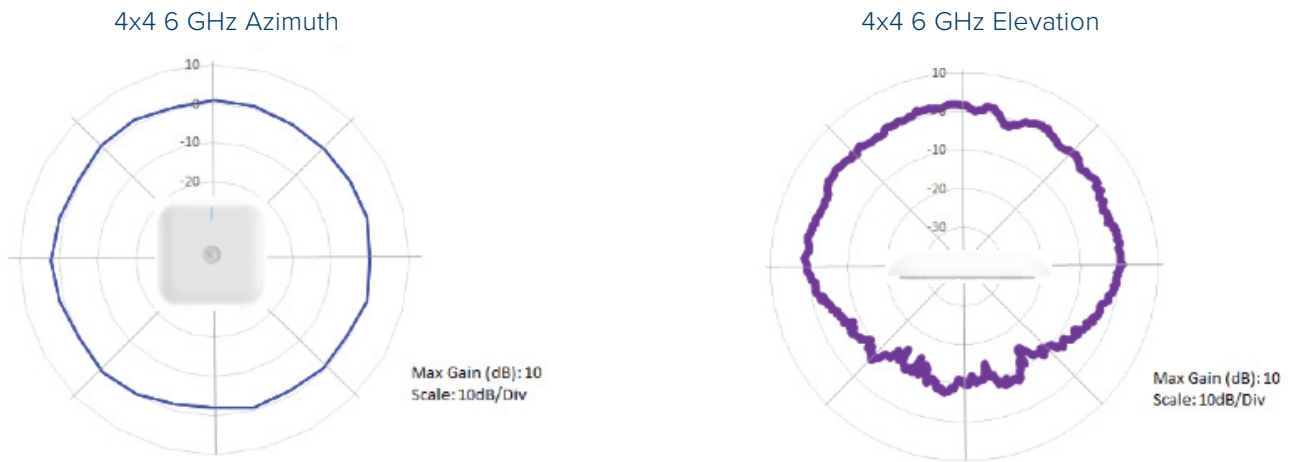
8x8 5 GHz Elevation



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

## XE5-8 Wi-Fi 6/6E Indoor Access Point

### Antenna Patterns



### XE5-8 Ordering Information

**Regulatory Model** XE5-8

**XE5-8X00A00-US** Indoor 5-Radio Wi-Fi 6/6E Access Point. SDR 802.11ax 8x8/4x4, US

**XE5-8X00A00-EU** Indoor 5-Radio Wi-Fi 6/6E Access Point. SDR 802.11ax 8x8/4x4, EU

**XE5-8X00A00-RoW** Indoor 5-Radio Wi-Fi 6/6E Access Point. SDR 802.11ax 8x8/4x4, RoW

**XE5-8X00A00-CA** Indoor 5-Radio Wi-Fi 6/6E Access Point. SDR 802.11ax 8x8/4x4, CA

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

**AX-E510RBKT-WW** Shock mount bracket

### cnMaestro X Ordering Information

**MSX-SUB-T3-1** cnMaestro X for Enterprise: Advanced management and includes Cambium Care Pro Support; 1-year term

**MSX-SUB-T3-3** cnMaestro X for Enterprise: Advanced management and includes Cambium Care Pro Support; 3-year term

**MSX-SUB-T3-5** cnMaestro X for Enterprise: Advanced management and includes Cambium Care Pro Support; 5-year term

**MSX-SUB-T3-M** cnMaestro X for Enterprise: Advanced management and includes Cambium Care Pro Support; 1-month term

## XE5-8 Wi-Fi 6/6E Indoor Access Point

### XMS and EasyPass Subscription Information

<b>XMSC-SUB-4R-1</b>	XMS-Cloud 1-year subscription: 4 or 5-radio AP with EasyPass Guest Self-Registration and Guest Ambassador modules and Cambium Care Advanced Support
<b>XMSC-SUB-4R-3</b>	XMS-Cloud 3-year subscription: 4 or 5-radio AP with EasyPass Guest Self-Registration and Guest Ambassador modules and Cambium Care Advanced Support
<b>XMSC-SUB-4R-5</b>	XMS-Cloud 5-year subscription: 4 or 5-radio AP with EasyPass Guest Self-Registration and Guest Ambassador modules and Cambium Care Advanced Support
<b>EASY-SUB-4R-1</b>	EasyPass 1-year subscription for a 4 or 5-radio AP operating with XMS-Cloud
<b>EASY-SUB-4R-3</b>	EasyPass 3-year subscription for a 4 or 5-radio AP operating with XMS-Cloud
<b>EASY-SUB-4R-5</b>	EasyPass 5-year subscription for a 4 or 5-radio AP operating with XMS-Cloud

### Cambium Care Support Information

<b>CCADV-SUP-XE5-8-1</b>	Cambium Care Advanced, 1-year support for one XE5-8 Wi-Fi 6/6E AP. 24x7 TAC support, SW updates, and NBD advance replacement for HW
<b>CCADV-SUP-XE5-8-3</b>	Cambium Care Advanced, 3-year support for one XE5-8 Wi-Fi 6/6E AP. 24x7 TAC support, SW updates, and NBD advance replacement for HW
<b>CCADV-SUP-XE5-8-5</b>	Cambium Care Advanced, 5-year support for one XE5-8 Wi-Fi 6/6E AP. 24x7 TAC support, SW updates, and NBD advance replacement for HW
<b>CCPRO-SUP-XE5-8-1</b>	Cambium Care Pro, 1-year support for one XE5-8 Wi-Fi 6/6E AP. 24x7 TAC support and SW updates
<b>CCPRO-SUP-XE5-8-3</b>	Cambium Care Pro, 3-year support for one XE5-8 Wi-Fi 6/6E AP. 24x7 TAC support and SW updates
<b>CCPRO-SUP-XE5-8-5</b>	Cambium Care Pro, 5-year support for one XE5-8 Wi-Fi 6/6E AP. 24x7 TAC support and SW updates
<b>CCADV-UPG-XE5-8-1</b>	Cambium Care Advanced Add-on to cnMaestro X, 1-year support for one XE3-4. 24x7 TAC support, SW updates, and NBDS advance replacement for HW
<b>CCADV-UPG-XE5-8-3</b>	Cambium Care Advanced Add-on to cnMaestro X, 3-year support for one XE3-4. 24x7 TAC support, SW updates, and NBDS advance replacement for HW
<b>CCADV-UPG-XE5-8-5</b>	Cambium Care Advanced Add-on to cnMaestro X, 5-year support for one XE3-4. 24x7 TAC support, SW updates, and NBDS advance replacement for HW

### LIMITED LIFETIME WARRANTY

**Cambium Networks XE5-8 Wi-Fi 6/6E Access Point includes a limited lifetime hardware warranty for a period of 5 years after end of sale.**

#### 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.