

X2-120 Wi-Fi 5 Indoor Access Point

802.11ac Wave 1 Dual Radio 2x2 AP

QUICK LOOK:

- **No centralized controller eliminates single point of failure**
- **Flexible cloud or on-premises management options**
- **Application visibility and policy control**
- **EasyPass simplified Wi-Fi access**
- **SSO with Office 365 and Google G Suite**



With a powerful integrated controller, zero-touch provisioning and available cloud-based network management, X2-120 Access Point (AP) provides powerful Wi-Fi solutions for environments including classrooms, offices, hospitals, hotel rooms, and more. X2-120 is backward compatible and supports the latest 802.11ac Wi-Fi standards at an affordable cost.

SIMPLIFIED ACCESS MANAGEMENT

EasyPass Access Services provides a highly secure solution integrated with XMS management. EasyPass simplifies the process of connecting users to the network, including self-provisioned access for guests and easy on-boarding of BYOD devices for employees.



EASY TO MANAGE

Combined with the Xirus Management System (XMS), the X2-120 AP delivers complete visibility and control of the Wi-Fi network, including users, devices, applications, network traffic and the RF environment - all from a single console. Designed for simple deployment, zero-touch configuration gets your network up and running in just minutes.

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Access Point Specifications

Radios	2
	2x2, 867 Mbps
	SU-MIMO

Wi-Fi	802.11a/b/g/n/ac
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Maximum Wi-Fi Bandwidth	1.17 Gbps
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Maximum Associated Devices	512 per AP
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Wired Uplinks	1 GbE
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Maximum Power Consumption	12.5 W (PoE)
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Dimensions	20.32 cm Dia x 46.23 mm H (8 in Dia x 1.82 in H)
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Weight	907.18 g (2 lbs)
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Operating Temperature	0°C to 50°C (32°F to 122°F), 5-90% humidity, non-condensing
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Storage Temperature	-40°C to 70°C (-40°F to 158°F)
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Network Specifications

RF Management

- In-band spectrum analysis

- Dynamic channel configuration

- Dynamic cell size configuration

- Monitor radio for threat assessment and mitigation wired and wireless packet captures (including all 802.11 headers)

- Wired and wireless RMON / packet captures

- Radio assurance for radio self-test and healing

- RF monitor

- 2.4 & 5 GHz Honeypot control – Increase available

- 2.4 & 5 GHz wireless device density through management of spurious 2.4 & 5 GHz association traffic

- Ultralow power mode – maximize wireless channel

- Re-use and increase wireless device density through tight power controls

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Network Specifications cont'd

High Availability

Supports hot standby mode for mission critical areas

In-service AOS software upgrade process increases network availability for 24x7 operations

Environmentally Friendly

Supports ability to turn off radios based on schedule

IPv6 Support (IN CLI ONLY)

IPv4 and IPv6 dual stack client support

IPv6-only network

Increase wireless device density through control of unnecessary IPv6 traffic over IPv4-only networks

IPv6 functions: IP addressing, DNS, filters, application control, syslog, SNMP management, SSH, Telnet, FTP, DHCP

RFC Support

RFC 768 UDP

RFC791IP

RFC 2460 IPV6 (Bridging only)

RFC 792 ICMP

RFC 793 TCP

RFC 826 ARP

RFC 1122 Requirements for Internet hosts – communication layers

RFC 1542 BOOTP

RFC 2131 DHCP

Security

WPA

IEEE 802.11i WPA2, RSN

RFC 1321 MD5 Message-digest algorithm

RFC 2246 TLS protocol version 1.0

RFC 3280 Internet X.509 PKI certificate and CRL profile

RFC 4347 Datagram transport layer security

RFC 4346 TLS protocol version 1.1

Encryption Types Open, WEP, TKIP-MIC: RC4 40, 104 and 128 bits

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Network Specifications cont'd

Authentication

IEEE 802.1x	RFC 5281 EAP-TTLS
RFC 2548 Microsoft vendor-specific RADIUS attributes	RFC 2284 EAP-GTC
RFC 2716 PPP EAP-TLS	RFC 4186 EAP-SIM
RFC 2865 RADIUS authentication	RFC 3748 Leap passthrough
RFC 2866 RADIUS accounting	RFC 3748 Extensible authentication protocol
RFC 2867 Tunnel accounting	Web page authentication
RFC 2869 RADIUS extensions	WPR, landing page, redirect
RFC 3576 Dynamic authorizations extensions to RADIUS	Support for internal WPR, landing page and authentication
RFC 3579 RADIUS support for EAP	Support for external WPR, landing page and authentication
RFC 3748 EAP-PEAP	Support for Xirrus EasyPass Access services for employee SSO, BYOD, IoT and guest access
RFC 5216 EAP-TLS	

Regulatory Compliance

CE Mark:	Safety:
EU CE Mark	UL60950-1 2nd edition
EN300 328 V2.1.1 with DFS,	CAN/CSA C22.2 No. 60950-1-07, 2nd edition,
EN 301 893 V2.1.1 with DFS,	2011-12
EN 301 489-1 V2.1.1 EN 301 489-17 V2.2.1	EN 60950-1:2006/A2:2013
EN55022/EN55024	IEC 60950-1:2005/A2:2013
Wi-Fi Alliance (WPA2, VHT5G, Hotspot 2.0).	EN 60950-22:2006+AC:2008 (outdoor units)
US FCC Part 15 subparts B,C,E with DFS (new rules)	UL60950-22 (outdoor units)
Canada: ICES-0003, ICES 210 with DFS	CSA C22.2 No 60950-22-07 (outdoor units)
	EN60601-1-2 (RF exposure)
	EU Directive 2002/95/EC (RoHS)
	EU Directive 1907/2006/EC (REACH)

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Network Specifications cont'd

Channel Support
2.4 GHz

(BASED UPON COUNTRY CODE SELECTIONS)

1,2,3,4,5,6,7,8,9,10,11,12,13,14

Channel Support 5 GHz

(BASED UPON COUNTRY CODE SELECTIONS)

U-NII-1 – Non-DFS channels 36 40 44 48

U-NII-2A DFS channels* 52 56 60 64

U-NII-2C DFS channels* 100 104 108 112 116 120 124 128 132 136 140 144

U-NII-3 Non-DFS channels 149 153 157 161 165

Management

Management

SNMP v1, v2c, v3

RFC 854 Telnet

RFC 1155 Management information for TCP/IP Based Internets

RFC 1156 MIB

RFC 1157 SNMP

RFC 1212 Concise MIB definitions

RFC 1213 SNMP MIB II

RFC 1215 A Convention for defining traps for use with the SNMP

RFC 1350 TFTP

RFC 1643 Ethernet MIB

RFC 2030 Simple Network Time Protocol SNTP

RFC 2578 Structure of management information version 2 (SMIv2)

RFC 2579 Textual conventions for SMIv2

RFC 2616 HTTP 1.1

RFC 2665 Definitions of managed objects for the Ethernet-like interface types

RFC 2674 Definitions of managed objects for bridges with traffic classes, multicast filtering and virtual LAN extensions

RFC 2819 Remote network monitoring management information base

RFC 2863 The Interface Group MIB

RFC 3164 BSD Syslog Protocol

RFC 3414 User-based Security Model (USM) for version 3 of the Simple Network Management Protocol (SNMPv3)

RFC 3416 Version 2 of the Protocol Operations for the Simple Network Management Protocol (SNMP)

RFC 3417 Transport mappings for the Simple Network Management Protocol (SNMP)

RFC 3418 Management Information Base (MIB) for the Simple Network Management Protocol (SNMP)

RFC 3584 Coexistence between version 1, version 2, and version 3 of the Internet-standard network management framework

RFC 3636 Definitions of managed objects for IEEE Xirrus Private MIBs

Integration with Splunk for accurate search and analysis of intra-organizational IT events

Netflow Export v9 and IPFIX compatibility allows for IP traffic statistics collection

Management Interfaces

Command line interface

Web interface (http / https)

Xirrus Management System (XMS)

XMS-Cloud

XMS-Enterprise

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Standards

Wi-Fi Protocols IEEE 802.11a, 802.11ac, 802.11b, 802.11d, 802.11e, 802.11g, 802.11h, 802.11i, 802.11j, 802.11k, 802.11n, 802.11u, 802.11w

Wired Protocols IEEE 802.3 10BASE-T, IEEE 802.3.u 100BASE-TX , 1000BASE-T, 802.3ab 1000BASE-T

IEEE 802.1q – VLAN tagging

IEEE 802.1d – Spanning tree

IEEE 802.1p – Layer 2 traffic prioritization

IPv6 Control – Increase wireless device density through control of unnecessary IPv6 traffic on IPv4-only networks

DHCP option 82

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Ordering Information

Configured Models

X2-120 Dual-radio 2x2 MIMO 802.11ac AP with up to 1.2 Gbps of total Wi-Fi bandwidth; integrated controller with operating system

Accessories

XP1-MSI-20 1 Port 20 W PoE Injector that powers 1 AP (X2-120, XR-500). Requires order of appropriate XS-PWR-XX cord for country where the AP will be deployed; refer to Accessories Guide for other options including managed multi-port injectors

Mountings

Refer to Accessories Guide for options, part numbers and detailed information

Cambium XMS and Support

XMSC-SUB-2R-1 XMS-Cloud 1-year subscription: 2-radio AP with EasyPass Guest Self-Registration and Guest Ambassador modules and Cambium Care Advanced Support

XMSC-SUB-2R-3 XMS-Cloud 3-year subscription: 2-radio AP with EasyPass Guest Self-Registration and Guest Ambassador modules and Cambium Care Advanced Support

XMSC-SUB-2R-5 XMS-Cloud 5-year subscription: 2-radio AP with EasyPass Guest Self-Registration and Guest Ambassador modules and Cambium Care Advanced Support

EASY-SUB-2R-1 EasyPass 1-year subscription for a 2-radio AP operating with XMS-Cloud or XMS-Enterprise

EASY-SUB-2R-3 EasyPass 3-year subscription for a 2-radio AP operating with XMS-Cloud or XMS-Enterprise

EASY-SUB-2R-5 EasyPass 5-year subscription for a 2-radio AP operating with XMS-Cloud or XMS-Enterprise

CCADV-SUP-X2-120-1 Cambium Care Advanced, 1-year support for one X2-120 Wireless AP. 24x7 TAC support, SW updates, and NBD advance replacement for HW

CCADV-SUP-X2-120-3 Cambium Care Advanced, 3-year support for one X2-120 Wireless AP. 24x7 TAC support, SW updates, and NBD advance replacement for HW

CCADV-SUP-X2-120-5 Cambium Care Advanced, 5-year support for one X2-120 Wireless AP. 24x7 TAC support, SW updates, and NBD advance replacement for HW

CCPRO-SUP-X2-120-1 Cambium Care Pro, 1-year support for one X2-120 AP. 24x7 TAC support, SW updates

CCPRO-SUP-X2-120-3 Cambium Care Pro, 3-year support for one X2-120 AP. 24x7 TAC support, SW updates

CCPRO-SUP-X2-120-5 Cambium Care Pro, 5-year support for one X2-120 AP. 24x7 TAC support, SW updates

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.