

XR-320 Wall Mount Access Point

High performance 802.11ac Wave 1 2x2 AP

QUICK LOOK:

- **Wall mount AP with integrated switch**
- **Integrated 4 port Gigabit Ethernet switch with PoE output**
- **Cloud or on-premises management options**
- **EasyPass simplified Wi-Fi access**
- **SSO with Office 365 and Google G Suite**



This high performance Gigabit Wi-Fi wall mount access point (AP) delivers multi-device wireless and wired connectivity for high bandwidth IP services in hotel rooms, hospital rooms, dormitories, offices, and similar locations.

The XR-320 AP is fast to deploy over existing in-wall cabling and simple to manage from anywhere with Xirrus Management System-Cloud (XMS-Cloud) or on-premise Xirrus Management System-Enterprise. This highly flexible AP with integrated Gigabit wired switch is purpose built for clean in-room aesthetics.

LOWER COST OF IMPLEMENTATION

Using existing in-wall cabling this versatile product can deliver instant Wi-Fi access, connectivity to multiple wired devices and pass through access for legacy devices like POTS. It eliminates the need to pull new cable to the ceiling for Wi-Fi AP deployment or new in-wall cables for additional wired devices.



EASY TO MANAGE

Combined with the Xirrus Management System (XMS), the XR-320 series APs deliver 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	Dimensions	26.8 mm x 86mm x 150 mm (1.06 in x 3.39 in x 5.91 in)
	2x2 11ac (Wave 1), 867 Mbps		
	SU-MIMO		
Maximum Wi-Fi Bandwidth	1.17 Gbps	Weight	453.59 g (1.0 lbs)
Antennas	4	Operating Temperature	0°C to 50°C (32°F to 122°F) 5-90% humidity, non-condensing
Maximum Associated Devices	256	Storage Temperature	-40°C to 70°C (-40°F to 158°F)
Power	802.3af when no PoE output is required 802.3at PoE+ compatible for PoE output port 48V DC (at least 0.65A)	Security	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 Per port RADIUS MAC authentication and accounting

Network Specifications

RF Management	In-band spectrum analysis	RF monitor
	Dynamic channel configuration	2.4 & 5 GHz Honey-pot control – Increase available
	Dynamic cell size configuration	2.4 & 5 GHz wireless device density through management of spurious 2.4 & 5 GHz association traffic
	Monitor radio for threat assessment and mitigation Wired and wireless packet captures (including all 802.11 headers)	Ultra low power mode – maximize wireless channel
	Wired and wireless RMON / packet captures	Re-use and increase wireless device density through tight power controls
	Radio assurance for radio self-test and healing	

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Network Specifications cont'd

High Availability

Supports hot stand-by 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

Authentication

IEEE 802.1x

RFC 2548 Microsoft vendor-specific RADIUS attributes

RFC 2716 PPP EAP-TLS

RFC 2865 RADIUS authentication

RFC 2866 RADIUS accounting

RFC 2867 Tunnel accounting

RFC 2869 RADIUS extensions

RFC 3576 Dynamic authorizations extensions to RADIUS

RFC 3579 RADIUS support for EAP

RFC 3748 EAP-PEAP

RFC 5216 EAP-TLS

RFC 5281 EAP-TTLS

RFC 2284 EAP-GTC

RFC 4186 EAP-SIM

RFC 3748 Leap passthrough

RFC 3748 Extensible authentication protocol

Web page authentication

WPR, landing page, redirect

Support for internal WPR, landing page and authentication

Support for external WPR, landing page and authentication

Support for Xirrus EasyPass Access services for employee SSO, BYOD, IoT and guest access

Regulatory Compliance

CE Mark:

EU CE Mark

EN300 328 V2.1.1 with DFS,

EN 301 893 V2.1.1 with DFS,

EN 301 489-1 V2.1.1 EN 301 489-17 V2.2.1

EN55022/EN55024

Wi-Fi Alliance (WPA2, VHT5G, Hotspot 2.0).

US FCC Part 15 subparts B,C,E with DFS (new rules)

Canada: ICES-0003, ICES 210 with DFS

Safety:

UL60950-1 2nd edition

CAN/CSA C22.2 No. 60950-1-07, 2nd edition, 2011-12

EN 60950-1:2006/A2:2013

IEC 60950-1:2005/A2:2013

EN 60950-22:2006+AC:2008 (outdoor units)

UL60950-22 (outdoor units)

CSA C22.2 No 60950-22-07 (outdoor units)

EN60601-1-2 (RF exposure)

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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

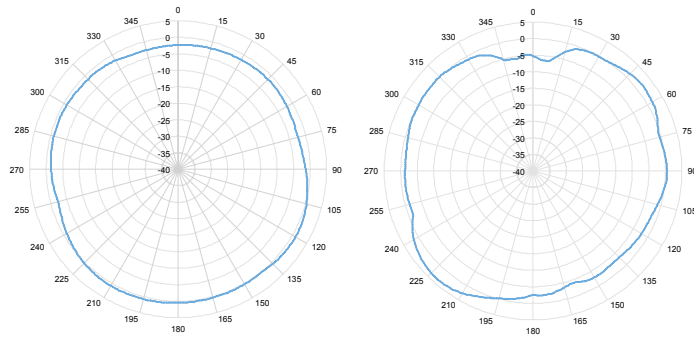
Web interface (http / https)

Xirrus Management System (XMS)
XMS-Cloud
XMS-Enterprise

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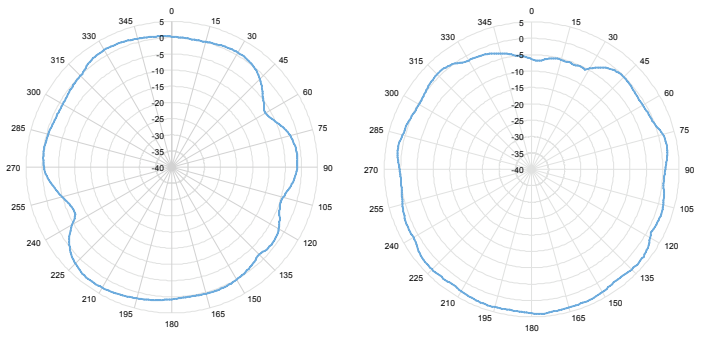
Antenna Pattern

RF Coverage Antenna Pattern for XR-320*



2.4 GHz Azimuth

2.4 GHz Elevation



5 GHz Azimuth

5 GHz Elevation

Receive Sensitivity**

2.4 GHz	XR-320 (dBm)
802.11b	
1 Mbps	-95
11Mbps	-91
802.11g	
6 Mbps	-93
54 Mbps	-76
802.11n HT20	
MSC0	-93
MSC7	-72
802.11n HT40	
MSC0	-90
MSC7	-70

5 GHz	XR-320 (dBm)
802.11a	
6 Mbps	-94
54 Mbps	-76
802.11n HT20	
MSC0	-93
MSC7	-73
802.11n HT40	
MSC0	-90
MSC7	-70
802.11ac VHT20	
MSC0	-93
MSC9	-66
802.11ac VHT40	
MSC0	-90
MSC9	-63
802.11ac VHT80	
MSC0	-87
MSC9	-60

* Single radio antenna pattern

** Single radio chain

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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



Front



Side



Back



Bottom



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Ordering Information

Configured Models

XR-320	Integrated Dual radio 2x2 MIMO 802.11ac wall mount wireless AP and 4-Gigabit port wired switch for high speed Gigabit in-room connectivity
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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-XR-320-1	Cambium Care Advanced, 1-year support for one XR-320 Wireless AP. 24x7 TAC support, SW updates, and NBD advance replacement for HW
CCADV-SUP-XR-320-3	Cambium Care Advanced, 3-year support for one XR-320 Wireless AP. 24x7 TAC support, SW updates, and NBD advance replacement for HW
CCADV-SUP-XR-320-5	Cambium Care Advanced, 5-year support for one XR-320 Wireless AP. 24x7 TAC support, SW updates, and NBD advance replacement for HW
CCPRO-SUP-XR-320-1	Cambium Care Pro, 1-year support for one XR-320 AP. 24x7 TAC support, SW updates
CCPRO-SUP-XR-320-3	Cambium Care Pro, 3-year support for one XR-320 AP. 24x7 TAC support, SW updates
CCPRO-SUP-XR-320-5	Cambium Care Pro, 5-year support for one XR-320 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.