Cambium Networks™

DATA SHEET

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**

LAN 1
LAN 2
LAN 3
LAN 4 (PoE)

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 2x2 11ac (Wave 1), 867 Mbps SU-MIMO
Maximum Wi-Fi Bandwidth	1.17 Gbps
Antennas	4
Maximum Associated Devices	256
Power	802.3af when no PoE output is required 802.3at PoE+ compatible for PoE output port 48V DC (at least 0.65A)

Dimensions	26.8 mm x 86mm x 150 mm (1.06 in x 3.39 in x 5.91 in)
Weight	453.59 g (1.0 lbs)
Operating Temperature	0°C to 50°C (32°F to 122°F) 5-90% humidity, non-condensing
Storage Temperature	-40°C to 70°C (-40°F to 158°F)
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 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 Ultra low 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 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 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)
- 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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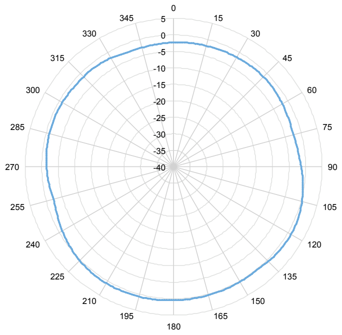
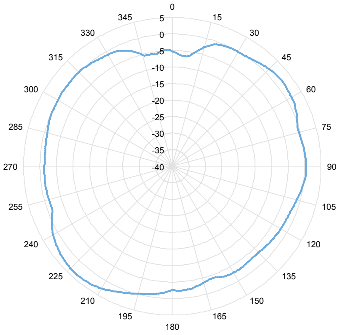
Antenna Pattern

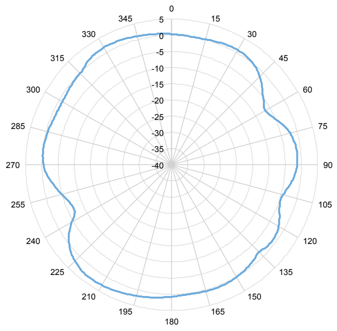
RF Coverage Antenna Pattern for XR-320*



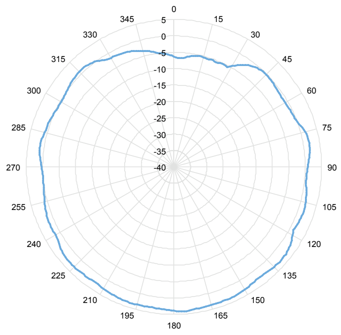
2.4 GHz Azimuth



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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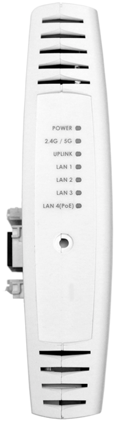
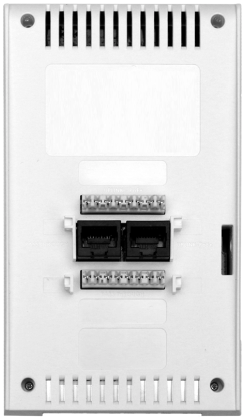
Standards

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

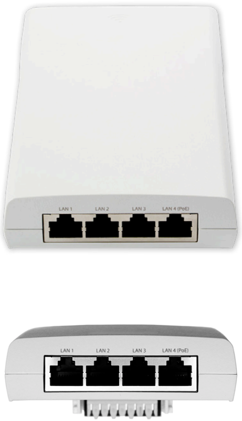
Front


POWER
2.4G / 5G
UPLINK
LAN 1
LAN 2
LAN 3
LAN 4(PoE)

Side



Back


LAN 1
LAN 2
LAN 3
LAN 4 (PoE)

Bottom

XR-320 Wall Mount Access Point

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

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 upport, 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.

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