XD2 Wi-Fi 5 Indoor Access Points

802.11ac Wave 2 Dual-Radio AP's with Software-Defined Radios

QUICK LOOK:

- **High performance 802.11ac Wave 2 3x3 and 4x4 APs**
- **Software-defined radios enable all-5 GHz deployment**
- **Application visibility and control of 2,000+ apps**
- **EasyPass simplified Wi-Fi access**
- **SSO with Office 365 and Google G Suite**

DESIGNED TO DELIVER SUPERIOR PRICE-PERFORMANCE

The XD2 series is made up of intelligent 802.11ac Wave 2 Access Points (APs) that are very easy to deploy and manage from the cloud or on-premises. Designed with a powerful integrated controller, layer 7 application visibility and simple user access with EasyPass, these APs provide a seamless solution for environments requiring high-performance Wi-Fi connectivity, such as classrooms, offices, hospitals, libraries, and more. The XD2-240 supports 4x4 MU-MIMO while the value-priced XD2-230 supports 3x3. These highly extensible APs easily integrate with third party software through standards-based JSON APIs for advanced capabilities such as location services.

SOFTWARE-DEFINED FLEXIBILITY

Packed with performance, the XD2 dual -radio APs support Software-Defined Radios (SDR) to deliver twice the 5 GHz Wi-Fi capacity compared to competitive APs. Instantly boost performance with the click of a mouse to adapt to changing client devices and optimize the user experience.

EASY TO MANAGE

Combined with the Xirrus Management System (XMS), the XD2 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.

©2020 Cambium Networks, Ltd.

XD2 Wi-Fi 5 Indoor Access Points

Access Point Specifications

	XD2-230	XD2-240
Radios	1 - 2.4 GHz / 5 GHz software-defined 1 - 5 GHz 3x3, 11ac Wave 2, 1.9 Gbps **MU-MIMO:** 6 streams Bluetooth Low Energy (BLE)	2 - 2.4 GHz / 5 GHz software-defined 4x4, 11ac Wave 2, 3.47 Gbps **MU-MIMO**: 8 streams Bluetooth Low Energy (BLE)
Wi-Fi	802.11 a/b/g/n/ac Wave 2	802.11 a/b/g/n/ac Wave 2
Maximum Wi-Fi Bandwidth	3.9 Gbps	6.9 Gbps
Antennas	6 x internal omni, dual-band, 1 x BLE antenna	8 x internal omni, dual-band, 1 x BLE antenna
Maximum Associated Devices	480	480
Wired Uplinks	2-1 GbE SUPPORTS FOUR MODES: 802.3AD (AGGREGATE TRAFFIC), BROADCAST, LINK-BACKUP (FAILOVER), LOAD BALANCING	
Maximum Power Consumption	20 W (802.3at) Add 2 W if BLE enabled	22 W (802.3at) Add 2 W if BLE enabled
Dimensions	19.56 cm D x 58.2 mm H (7.7 in D x 2.3 in H)	20.32 cm D x 46.23 mm H (8 in D x 1.82 in H)
Weight	816.47 g (1.8 lbs)	816.47 g (1.8 lbs)
Operating Temperature	0°C to 50°C (32°F to 131°F), 5-90% humidity, non-condensing	
Storage Temperature	-40°C to 70°C (-40°F to 158°F)	

Network Specifications

RF Management

In-band spectrum analysis	RF monitor
Dynamic channel configuration	2.4 & 5 GHz Honeypot 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)	Ultralow 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	

©2020 Cambium Networks, Ltd.

XD2 Wi-Fi 5 Indoor Access Points

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

©2020 Cambium Networks, Ltd.

XD2 Wi-Fi 5 Indoor Access Points

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)

©2020 Cambium Networks, Ltd.

XD2 Wi-Fi 5 Indoor Access Points

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

©2020 Cambium Networks, Ltd.

XD2 Wi-Fi 5 Indoor Access Points

Management cont'd

Management Interfaces	Command line interface
	Web interface (http / https)
	Xirrus Management System (XMS) XMS-Cloud XMS-Enterprise

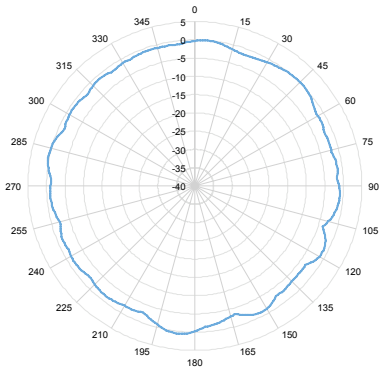
Standards

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 802.3ad – Link aggregation
	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

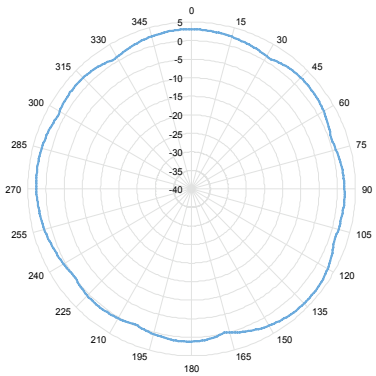
©2020 Cambium Networks, Ltd.

XD2 Wi-Fi 5 Indoor Access Points

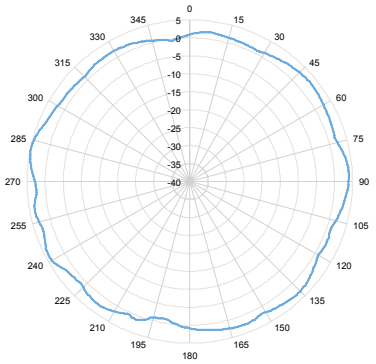
XD2-240 Antenna Pattern (Single Radio Pattern)



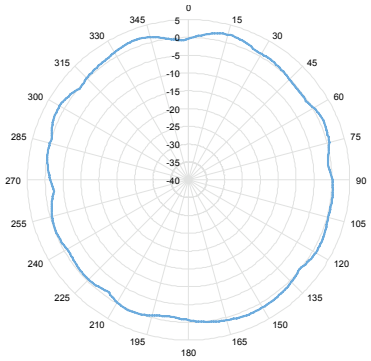
2.4 GHz Azimuth



2.4 GHz Elevation



5 GHz Azimuth



5 GHz Elevation

XD2 Wi-Fi 5 Indoor Access Points

Ordering Information

XD2-230	Xirrus Indoor 3x3 AP. 11ac Wave 2, 5 GHz + one SDR (2.4/5 GHz). Internal antennas
XD2-230-US	Xirrus Indoor 3x3 AP. 11ac Wave 2, 5 GHz + one SDR (2.4/5 GHz). Internal antennas, US
XD2-230-EU	Xirrus Indoor 3x3 AP. 11ac Wave 2, 5 GHz + one SDR (2.4/5 GHz). Internal antennas, EU
XD2-230-CA	Xirrus Indoor 3x3 AP. 11ac Wave 2, 5 GHz + one SDR (2.4/5 GHz). Internal antennas, CA
XD2-240	Xirrus Indoor 4x4 AP. Dual 11ac Wave 2 SDR radios (2.4/5 GHz). Internal antennas
XD2-240-US	Xirrus Indoor 4x4 AP. Dual 11ac Wave 2 SDR radios (2.4/5 GHz). Internal antennas, US
XD2-240-EU	Xirrus Indoor 4x4 AP. Dual 11ac Wave 2 SDR radios (2.4/5 GHz). Internal antennas, EU
XD2-240-CA	Xirrus Indoor 4x4 AP. Dual 11ac Wave 2 SDR radios (2.4/5 GHz). Internal antennas, CA

©2020 Cambium Networks, Ltd.

XD2 Wi-Fi 5 Indoor Access Points

Cambium XMS and Support Ordering Information

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-XD2-230-1	Cambium Care Advanced, 1-year support for one XD2-230 Wireless AP. 24x7 TAC support, SW updates, and NBD advance replacement for HW
CCADV-SUP-XD2-230-3	Cambium Care Advanced, 3-year support for one XD2-230 Wireless AP. 24x7 TAC upport, SW updates, and NBD advance replacement for HW
CCADV-SUP-XD2-230-5	Cambium Care Advanced, 5-year support for one XD2-230 Wireless AP. 24x7 TAC support, SW updates, and NBD advance replacement for HW
CCPRO-SUP-XD2-230-1	Cambium Care Pro, 1-year support for one XD2-230 Wi-Fi 6 AP. 24x7 TAC support, SW updates
CCPRO-SUP-XD2-230-3	Cambium Care Pro, 3-year support for one XD2-230 Wi-Fi 6 AP. 24x7 TAC support, SW updates
CCPRO-SUP-XD2-230-5	Cambium Care Pro, 5-year support for one XD2-230 Wi-Fi 6 AP. 24x7 TAC support, SW updates
CCADV-SUP-XD2-240-1	Cambium Care Advanced, 1-year support for one XD2-240 Wireless AP. 24x7 TAC support, SW updates, and NBD advance replacement for HW
CCADV-SUP-XD2-240-3	Cambium Care Advanced, 3-year support for one XD2-240 Wireless AP. 24x7 TAC upport, SW updates, and NBD advance replacement for HW
CCADV-SUP-XD2-240-5	Cambium Care Advanced, 5-year support for one XD2-240 Wireless AP. 24x7 TAC support, SW updates, and NBD advance replacement for HW
CCPRO-SUP-XD2-240-1	Cambium Care Pro, 1-year support for one XD2-240 Wi-Fi 6 AP. 24x7 TAC support, SW updates
CCPRO-SUP-XD2-240-3	Cambium Care Pro, 3-year support for one XD2-240 Wi-Fi 6 AP. 24x7 TAC support, SW updates
CCPRO-SUP-XD2-240-5	Cambium Care Pro, 5-year support for one XD2-240 Wi-Fi 6 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.

cambiumnetworks.com

06232020

©2020 Cambium Networks, Ltd.