



OUTDOOR ACCESS POINTS

TECHNICAL BRIEF

Deliver ubiquitous Wi-Fi even in the most challenging of the environments. Purpose built for outdoors, these APs are sealed in a hardened case to protect from dust, wind and rain. Cold and heat aren't a problem either, because these APs are rated operate from -20° C to 55° C (-4° F to 131 F). These APs are ideally is ideally suited for outdoor campus areas, concert fields, racetracks, and other high-density outdoor applications. Maximize the Wi-Fi coverage with a choice of external antennas to meet your specific requirements.

Configuration Specifications

	XR-500H	XR-2000H	XH2
Chassis Dimensions	7.7" X 9.875" X 10.125"	11.4" X 11.8" X 4.2"	7.7" X 9.875" X 10.125"
Supported Standards	802.11a/b/g/n	802.11a/b/g/n	802.11a/b/g/n/ac
Total Number of Radios	2	4	2
Radio Type	2x2, 300Mbps	2x2, 300Mbps	2x2, 867Mbps
MIMO Technology	SU-MIMO	SU-MIMO	SU-MIMO
Maximum Wi-Fi Bandwidth	600Mbps	1.2Mbps	1.7Gbps
Wi-Fi Threat Sensor	Yes	Yes	Yes
Maximum Wi-Fi Backhaul (WDS)	300Mbps	900Mbps	867Mbps
Maximum Associated Devices	480	960	390
Antenna Connectors	4 RP-TNC	8 RP-TNC	4 N-type
Wired Uplinks Modes: 802.3ad (link aggregation), broadcast, link backup (failover), load balance	1GbE	2-1GbE	2-1GbE
Maximum Power Consumption	12.5W (PoE+)	30W	25.5W (PoE+)
Weight	5lbs	9lbs	6lbs



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FEATURE	SPECIFICATIONS	
RF Management	<ul style="list-style-type: none"> In-band per IAP 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 	<ul style="list-style-type: none"> RF monitor 2.4 & 5Ghz Honeypot Control – Increase available 2.4 & 5Ghz wireless device density through management of spurious 2.4 & 5Ghz association traffic. Ultra Low Power Mode – Maximize wireless channel re-use and increase wireless device density through tight power controls.
High Availability	Supports hot stand-by mode for mission critical areas	
Environmentally Friendly	Supports ability to turn off radios based on schedule configuration	
Wireless 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	<ul style="list-style-type: none"> IEEE 802.3 10BASE-T, IEEE 802.3.u 100BASE-TX , 1000BASE-T, 802.3ab 1000BASE-T IEEE 802.1q – VLAN tagging IEEE 802.1AX – 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 	
Carrier Applications	Passpoint 2.0 Certification	
RFC Support	<ul style="list-style-type: none"> RFC 768 UDP RFC 791 IP RFC 2460 IPV6 (Bridging only) RFC 792 ICMP RFC 793 TCP 	<ul style="list-style-type: none"> RFC 826 ARP RFC 1122 Requirements for internet hosts – communication layers RFC 1542 BOOTP RFC 2131 DHCP
Security	<ul style="list-style-type: none"> WPA IEEE 802.11i WPA2, RSN RFC 1321 MD5 Message-digest algorithm RFC 2246 TLS protocol version 1.0 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Open, WEP, TKIP-MIC: RC4 40, 104 and 128 bits SSL and TLS: RC4 128-bit and RDA 1024 and 2048 bit 	
Authentication	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> WPR, Landing Page, Redirect Support for Internal WPR, Landing Page and Authentication Support for External WPR, Landing Page and Authentication Support for Xirrus Guest Access System
Regulatory Compliance	<ul style="list-style-type: none"> CE Mark Safety: <ul style="list-style-type: none"> UL 60950-1:2003 EN 60950:2000 EMI and susceptibility (Class A) 	<ul style="list-style-type: none"> U.S.: FCC Part 15.107 and 15.109 Canada: ICES-003 Japan: VCCI Europe: EN 55022, EN 55024 EN 60601-1-2 EN 301 893 V1.6.1
Environmental Specifications	<ul style="list-style-type: none"> Operating Temperature: -20C to +55C, 0-90% humidity, non-condensing Storage Temperature: -40C to 70C IP65 Rated 	

*Available only on 802.11ac platforms



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Channel Support 2.4GHz (Channel selections are based upon country code selections)	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14	
Channel Support 5GHz (Channel selections are 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 Interfaces	Command line interface Web interface (http / https)	Xirrus Management System (XMS) XMS-Cloud XMS-Enterprise
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 (SMIPv2) RFC 2579 Textual Conventions for SMIPv2 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

* Currently not available on select models. DFS channels will be available upon regulatory certification.



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PART NUMBER	DESCRIPTION
Configured Models	
XR-520H	Hardened dual radio 2x2 MIMO 802.11n AP with external antennas; supports up to 600 Mbps of total Wi-Fi bandwidth; integrated controller with ArrayOS operating system
XR-2425H	Hardened four radio 2x2 MIMO 802.11n AP with external antennas; supports up to 1.2Gbps of total Wi-Fi bandwidth; integrated controller and ArrayOS Operating System
XH2-120	Hardened dual radio 2x2 MIMO 802.11ac AP with external antennas; supports up to 1.7Gbps of total Wi-Fi bandwidth; integrated controller with ArrayOS operating system
Software Licenses	
AOS-APPCON	Application Control license enabling deep packet inspection (DPI) on 1 radio
Accessories	
ANT-OMNI-1x1-XX	Omni directional 1x1 antennas; refer to External Antenna Guide for detailed specifications and cables
ANT-XXX-2x2-XX	Omni, 15, 30, 60, 90 degree 2x2 antennas; refer to External Antenna Guide for detailed specifications and cables
XP1-MSI-20	1 Port 20W PoE Injector that powers 1 AP (XR-520H, XH2-120). Requires order of appropriate XS-PWR-XX cord for the country where the AP will be deployed; refer to Accessories Guide for other options including managed multi-port injectors
XP1-MSI-30	1 Port 30W PoE Injector that powers 1 AP (XR-520H, XR-2425H, XH2-120) . Requires order of appropriate XS-PWR-XX cord for the 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 number and descriptions.

About Xirrus

Xirrus provides the only enterprise Wi-Fi networks specifically designed for the real-time demands of an all-wireless world. Xirrus' cloud managed Wi-Fi solutions are scalable, future proof, easy to use and provide application control, which makes Xirrus the obvious choice for small, medium, or large-scale Wi-Fi networks. Xirrus' unique network architecture can scale to double and quadruple the number of users, without performance impact or the need for additional wiring and access points. And it's designed to evolve with the changes in Wi-Fi technology and standards, so you won't need to replace your Xirrus network, even after a decade of use. Xirrus solutions are deployed in 4000 networks worldwide, and we are proud to call some of the biggest companies on the planet our clients.