



# XR HIGH DENSITY MODULAR ACCESS POINTS

Xirrus High Density Modular Access Points are the only Wi-Fi solutions of their kind with the scale, performance, and flexible upgradability to economically serve today’s requirements and grow to meet tomorrow’s demand. The industry’s only fully modular and software programmable Wi-Fi platforms, Xirrus High Density Modular Access Points scale from 2 to 8 radios to service a broad range of wireless user density and capacity requirements. These 802.11ac Wave 1 and Wave 2 APs are ideal for providing robust future-proof Wi-Fi connectivity in areas high density usage such as 1:1 classrooms, lecture halls, meeting spaces, auditoriums and more.

## CONFIGURATION SPECIFICATIONS

### XR-2000 SERIES: 4-SLOT HIGH-DENSITY MODULAR ACCESS POINTS

	XR-2226	XR-2236	XR-2426	XR-2436 / XR-2436-WAVE2
<b>Chassis Dimensions</b>	11" diameter	11" diameter	11" diameter	11" diameter
<b>Supported Standards</b>	802.11a/b/g/n/ac Wave 1 (Wave 2 ready)	802.11a/b/g/n/ac Wave 1 (Wave 2 ready)	802.11a/b/g/n/ac Wave 1 (Wave 2 ready)	802.11a/b/g/n/ac Wave 1 / Wave 2
<b>Total Radio Slots</b>	4	4	4	4
<b>Total Number of Radios</b>	2 - 2.4GHz / 5GHz software programmable	2 - 2.4GHz / 5GHz software programmable	4 - 2.4GHz / 5GHz software programmable	4 - 2.4GHz / 5GHz software programmable
<b>Radio Type</b>	2x2 11ac, 867Mbps	3x3 11ac, 1.3Gbps	2x2 11ac, 867Mbps	3X3 11ac, 1.3Gbps / 4x4 11ac, 3.47Gbps
<b>MIMO Technology</b>	SU-MIMO	SU-MIMO	SU-MIMO	SU-MIMO / MU-MIMO: 16 streams
<b>Channel Bonding</b>	80MHz	80MHz	80MHz	80MHz / 160MHz
<b>Maximum Wi-Fi Bandwidth</b>	1.73Gbps	2.6Gbps	3.47Gbps	5.2Gbps / 13.88Gbps
<b>Wi-Fi Threat Sensor</b>	Yes	Yes	Yes	Yes
<b>Integrated Antennas</b>	4	6	8	12 / 16
<b>Maximum Associated Devices</b>	480	480	960	960
<b>Radio Interface</b>	2.5Gbps PCI-Express	2.5Gbps PCI- Express	2.5Gbps PCI- Express	2.5Gbps PCI- Express



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## XR-2000 SERIES: 4-SLOT HIGH-DENSITY MODULAR ACCESS POINTS

	XR-2226	XR-2236	XR-2426	XR-2436 / XR-2436-WAVE2
Max SSIDs	16	16	16	16
Max VLANs	64	64	64	64
Wired Uplinks - support four modes 802.3ad link aggregation, broadcast, link-backup, load balancing	2-1GbE	2-1GbE	2-1GbE	2-1GbE
Maximum Power Consumption	22.5W	26.1W	30W	37W / 49W
Weight	2 lbs	2 lbs	2 lbs	2 lbs

## XR-4000 SERIES: 8-SLOT HIGH-DENSITY MODULAR ACCESS POINTS

	XR-4426	XR-4436	XR-4826	XR-4836 / XR-4836-WAVE2
Chassis Dimension	13" diameter	13" diameter	13" diameter	13" diameter
Supported Standards	802.11a/b/g/n/ac Wave 1 (Wave 2 ready)	802.11a/b/g/n/ac Wave 1 (Wave 2 ready)	802.11a/b/g/n/ac Wave 1 (Wave 2 ready)	802.11a/b/g/n/ac Wave 1 / Wave 2
Total Radio Slots	8	8	8	8
Total Number of Radios	4 - 2.4GHz / 5GHz software programmable	4 - 2.4GHz / 5GHz software programmable	8 - 2.4GHz / 5GHz software programmable	8 - 2.4GHz / 5GHz software programmable
Radio Type	2x2 11ac, 867Mbps	3x3 11ac, 1.3Gbps	2x2 11ac, 867Mbps	3X3 11ac, 1.3Gbps / 4x4 11ac, 3.47Gbps
MIMO Technology	SU-MIMO	SU-MIMO	SU-MIMO	SU-MIMO / MU-MIMO: 32 streams
Channel Bonding	80MHz	80MHz	80MHz	80MHz / 160MHz
Maximum Wi-Fi Bandwidth	3.5Gbps	5.2Gbps	5.26Gbps	8.6Gbps / 27.7Gbps
Wi-Fi Threat Sensor	Yes	Yes	Yes	Yes
Integrated Antennas	8	12	16	24 / 32
Maximum Associated Devices	960	960	1920	1920
Radio Interface	2.5Gbps PCI-Express	2.5Gbps PCI- Express	2.5Gbps PCI- Express	2.5Gbps PCI- Express
Max SSIDs	16	16	16	16
Max VLANs	64	64	64	64
Wired Uplinks - support four modes 802.3ad link aggregation, broadcast, link-backup, load balancing	2 - 1GbE	2 - 1GbE	2 - 1GbE	2 - 1GbE
Maximum Power Consumption	33W	38W	45W	50W / 74W
Weight	3 lbs	3 lbs	3 lbs	3.5 lbs



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## TECHNICAL SPECIFICATIONS

Features	Specifications	
RF Management	Dynamic channel configuration Dynamic cell size configuration Monitor radio for threat assessment and mitigation Wired and Wireless RMON / Packet Captures Radio assurance for radio self test and healing	RF monitor 2.4 & 5Ghz Honeypot Control – Increase available 2.4 & 5Ghz wireless device density through management of spurious 2.4 & 5Ghz association traffic. 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, 802.11w	
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 DHCP option 82	
Carrier Applications	Passpoint 2.0 Certification	
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 clients	
RFC Support	RFC 768 UDP RFC 791 IP 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 SSL and TLS: RC4 128-bit and RDA 1024 and 2048 bit	
Authentication	<ul style="list-style-type: none"> <li>• IEEE 802.1x</li> <li>• RFC 2548 Microsoft vendor-specific RADIUS attributes</li> <li>• RFC 2716 PPP EAP-TLS</li> <li>• RFC 2865 RADIUS Authentication</li> <li>• RFC 2866 RADIUS Accounting</li> <li>• RFC 2867 Tunnel Accounting</li> <li>• RFC 2869 RADIUS Extensions</li> <li>• RFC 3576 Dynamic Authorizations extensions to RADIUS</li> <li>• RFC 3579 RADIUS Support for EAP</li> <li>• RFC 3748 EAP-PEAP</li> </ul>	<ul style="list-style-type: none"> <li>• RFC 5216 EAP-TLS</li> <li>• RFC 5281 EAP-TTLS</li> <li>• RFC 2284 EAP-GTC</li> <li>• RFC 4186 EAP-SIM</li> <li>• RFC 3748 Leap Passthrough</li> <li>• RFC 3748 Extensible Authentication Protocol</li> <li>• Web Page Authentication</li> <li>• WPR, Landing Page, Redirect</li> <li>• Support for Internal WPR, Landing Page and Authentication</li> <li>• Support for External WPR, Landing Page and Authentication</li> <li>• Support for Xirrus EasyPass Access Services</li> </ul>



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Features	Specifications	
Environmental Specifications	Operating Temperature: 0-50°C, 5-90% humidity, non-condensing Storage Temperature: -40°C to 70°C	
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	<ul style="list-style-type: none"> <li>• SNMP v1, v2c, v3</li> <li>• RFC 854 Telnet</li> <li>• RFC 1155 Management Information for TCP/IP Based Internets</li> <li>• RFC 1156 MIB</li> <li>• RFC 1157 SNMP</li> <li>• RFC 1212 Concise MIB Definitions</li> <li>• RFC 1213 SNMP MIB II</li> <li>• RFC 1215 A Convention for Defining Traps for use with the SNMP</li> <li>• RFC 1350 TFTP</li> <li>• RFC 1643 Ethernet MIB</li> <li>• RFC 2030 Simple Network Time Protocol SNTP</li> <li>• RFC 2578 Structure of Management Information Version 2 (SMIPv2)</li> <li>• RFC 2579 Textual Conventions for SMIPv2</li> <li>• RFC 2616 HTTP 1.1</li> <li>• RFC 2665 Definitions of Managed Objects for the Ethernet Like Interface Types</li> <li>• RFC 2674 Definitions of Managed Objects for Bridges with Traffic Classes, Multicast Filtering and Virtual LAN Extensions</li> <li>• RFC 2819 Remote Network Monitoring Management Information Base</li> </ul>	<ul style="list-style-type: none"> <li>• RFC 2863 The Interface Group MIB</li> <li>• RFC 3164 BSD Syslog Protocol</li> <li>• RFC 3414 User-based Security Model (USM) for version 3 of the Simple Network Management Protocol (SNMPv3)</li> <li>• RFC 3416 Version 2 of the Protocol Operations for the Simple Network Management Protocol (SNMP)</li> <li>• RFC 3417 Transport Mappings for the Simple Network Management Protocol (SNMP)</li> <li>• RFC 3418 Management Information Base (MIB) for the Simple Network Management Protocol (SNMP)</li> <li>• RFC 3584 Coexistence between Version 1, Version 2, and Version 3 of the Internet-standard Network Management Framework</li> <li>• RFC 3636 Definitions of Managed Objects for IEEE Xirrus Private MIBs</li> <li>• Integration with Splunk for accurate search and analysis of intra-organizational IT events</li> <li>• Netflow Export v9 and IPFIX compatibility allows for IP traffic statistics collection</li> <li>• RFC 6455 Two way WebSocket based communication protocol</li> <li>• STOMP Simple Text Oriented Message Protocol for message oriented middleware</li> </ul>
Regulatory Compliance	EMC, Safety and Wireless <ul style="list-style-type: none"> <li>• FCC CFR 47 Part 15, Class B</li> <li>• ICES-003 Class B</li> <li>• FCC Subpart C 15.247</li> <li>• FCC Subpart E 15.407</li> <li>• RSS-247</li> <li>• EN 301 893</li> <li>• EN 300 328</li> <li>• EN 301 489 1 &amp; 17</li> <li>• EN 62311</li> <li>• EN 55022 (CISPR 22)</li> <li>• AS/NZS4268 + CISPR22</li> </ul>	Safety <ul style="list-style-type: none"> <li>• IEC 60950-1</li> <li>• EN 60950-1</li> <li>• UL 60950-1</li> <li>• CSA 22.2 No.60950-1A</li> <li>• AS/NZS 60950.1</li> </ul>



# XR HIGH DENSITY MODULAR ACCESS POINTS

Part Number	Description
<b>CONFIGURED MODELS</b>	
XR-2226	XR High Density Modular Access Point consisting of 4 slot chassis with integrated controller, two 867Mbps 802.11ac modular radios and ArrayOS operating system
XR-2236	XR High Density Modular Access Point consisting of 4 slot chassis with integrated controller , two 1.3Gbps 802.11ac modular radios and ArrayOS operating system
XR-2426	XR High Density Modular Access Point consisting of 4 slot chassis with integrated controller, four 867Mbps 802.11ac modular radios and ArrayOS operating system
XR-2436	XR High Density Modular Access Point consisting of 4 slot chassis with integrated controller, four 1.3Gbps 802.11ac modular radios, and ArrayOS operating system
XR-2436-WAVE2	XR High Density Modular Access Point consisting of 4 slot chassis with integrated controller, four 3.47Gbps 802.11ac Wave 2 radios, and ArrayOS operating system
XR-4426	XR High Density Modular Access Point consisting of 8 slot chassis with integrated controller, four 867Mbps 802.11ac modular radios and ArrayOS operating system
XR-4436	XR High Density Modular Access Point consisting of 8 slot chassis with integrated controller, four 1.3Gbps 802.11ac modular radios and ArrayOS operating system
XR-4826	XR High Density Modular Access Point consisting of 8 slot chassis with integrated controller, eight 867Mbps 802.11ac modular radios and ArrayOS operating system
XR-4836	XR High Density Modular Access Point consisting of 8 slot chassis with integrated controller, eight 1.3Gbps 802.11ac modular radios and ArrayOS operating system
XR-4836-WAVE2	XR High Density Modular Access Point consisting of 8 slot chassis with integrated controller, eight 3.47Gbps 802.11ac Wave 2 radios, and ArrayOS operating system

## SOFTWARE LICENSES

AOS-APPCON	Application Control license to enable Deep Packet Inspection (DPI) for application visibility and control on 1 modular radio
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