Xirrus Wireless Array

XR-4000 Series
Configurations: XR-4420, XR-4430, XR-4820, and XR-4830

DATASHEET

Introducing the Xirrus XR-4000 Series

The Xirrus XR-4000 Series Wireless Array is the first modular Wi-Fi product of its kind featuring upgradability, high scalability, high performance and integrated security to economically serve today's requirements without sacrificing for tomorrow's demand.

The XR-4000 Arrays deliver 4x the coverage, up to 8x the bandwidth and user density compared to legacy thin AP solutions. This equates to 75% less equipment, cable runs, and switch ports – resulting in a significant reduction in installation and ongoing management efforts compared to competitive solutions.

The Xirrus XR-4000 Series 8-slot chassis is the industry's only multi-state radio platform supporting multiple configurations with post-installation upgrade options. The Xirrus XR-4000 Series combines unmatched flexibility in wireless standards with the ability to scale a network to meet increasing capacity demands without adding additional devices.
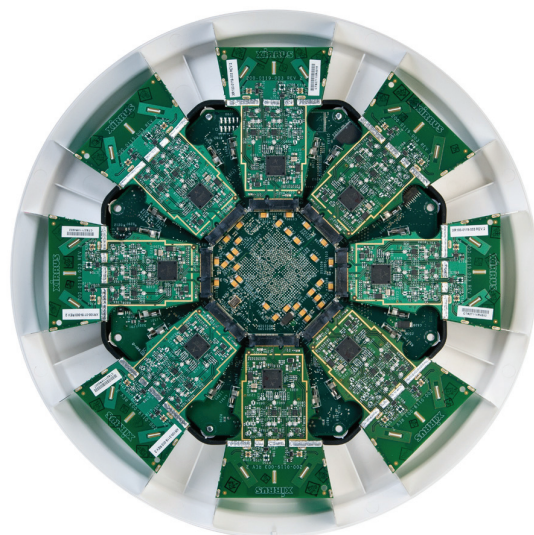
At A Glance

- Configurable with 4 or 8 multi-state radios (2.4GHz or 5GHz)
- Supports 300Mbps or 450Mbps 802.11n modes
- Supports up to 1920 users
- Field upgradable to add/change radios or new wireless technologies

XR-4000 SERIES 8-SLOT CHASSIS

Shown configured with eight multi-state, pluggable radio modules

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NSP Architecture for Amazing Performance

The architecture of the Xirrus XR-4000 Series is based upon a Network Services Processor (NSP) that delivers uncompromised performance to all associated users. The design allows for hardware based encryption, compression, acceleration as well as reliable quality of service with uptimes and availability optimized for 802.11n performance and scalability.

Unmatched Upgradability

The Xirrus XR-4000 radio upgradeable wireless platform allows a network to scale by adding up to eight radios to each Array. Radios can be purchased in either 300Mbps or 450Mbps versions of 802.11n, and every radio is capable of operating at 2.4GHz or 5GHz. The modular platform ensures support for new wireless technologies and is the first 802.11ac/11ad-ready product available.

The Xirrus XR-4000 Series Wireless Array allows a business to incrementally grow a network, expanding capacity to increase the number of supported devices available over time as the demands on the network grow. The modular architecture and multi-band radios protect the investment with the ability to adapt to future standards and capacity requirements.

Ready for the Future

Both the Xirrus XR-4000 Series 8-slot chassis and larger capacity Xirrus XR-6000 Series 16-slot chassis disrupt the status quo with the ability to scale coverage, bandwidth and capacity without adding additional access points to the network to accommodate growth.

NEW FEATURES

Application Control – Firewall, apply QoS, and manage 900+ application types under 15 categories using Layer 7 Deep Packet Inspection and other contextual application detection techniques.

Bonjour Director – Extend Apple Bonjour protocols across Layer 3 boundaries for simple setup configuration of commonly used shared Apple services such as Airplay and Airprint.

Key Benefits

Upgradable

Adapt to changes in business requirements with the ability to upgrade across Xirrus XR-4000 Arrays. Deliver a solution with a true 5 year life cycle that can incorporate new technologies as they come to market without starting over.

Scalable

Maintain a high level of performance for mission-critical applications and support the ability to handle unpredictable user growth throughout your Wi-Fi network. Scale the number of users by adding radios and scale capacity by increasing the network traffic throughput without installing additional devices.

Secure

Eliminate potential gaps in security infrastructure with the Xirrus XR-4000 series integrated firewall, threat sensor and spectrum analyzer providing comprehensive security without the need for additional equipment.

Economical

Deploy 75% less equipment than competitive solutions and reduce the effort to manage and maintain your Wi-Fi network. Re-alize savings with the Xirrus XR-4000 Series multi-radio design and directional antennas that minimizes the number of devices needed to be deployed resulting in savings in equipment, cables, switch ports, installation time, maintenance and power consumption.

Configuration Specifications

	XR-4420	XR-4430	XR-4820	XR-4830
Chassis Size	13"	13"	13"	13"
Total Radio Slots	8	8	8	8
Populated 802.11n Radios	4	4	8	8
Radio Type	300Mbps Multi-State (2.4GHz or 5GHz)	450Mbps Multi-State (2.4GHz or 5GHz)	300Mbps Multi-State (2.4GHz or 5GHz)	450Mbps Multi-State (2.4GHz or 5GHz)
Maximum Wi-Fi Bandwidth	1.2Gbps	1.8Gbps	2.4Gbps	3.6Gbps
Dedicated Wi-Fi Threat Sensor	Yes	Yes	Yes	Yes
Integrated Antennas	8	12	16	24
Max Wi-Fi Backhaul	1.35Gbps	1.35Gbps	1.35Gbps	1.35Gbps
Integrated Wi-Fi Switch Ports	8	8	8	8
Gigabit Ethernet Uplink Ports	2	2	2	2
Maximum Associated Users	960	960	1920	1920
Radio Interface	2.5Gbps PCI-Express	2.5Gbps PCI-Express	2.5Gbps PCI-Express	2.5Gbps PCI-Express
Maximum Power Consumption	33W	38W	45W	50W

Technical Specifications

FEATURE	SPECIFICATIONS	
RF Management	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	RF monitor 2.4 & 5.0Ghz Honeypot Control – Increase available 2.4 & 5.0Ghz wireless device density through management of spurious 2.4 & 5.0Ghz 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 Array for mission critical areas	
Environmentally Friendly	Supports ability to turn off radios based on schedule configuration	
Wireless Protocols	IEEE 802.11a, 802.11b, 802.11d, 802.11e, 802.11g, 802.11h, 802.11i, 802.11j, 802.11n	
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 802.1AX – 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.	

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FEATURE	SPECIFICATIONS	
Carrier Applications	Passport Certification	
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 RSA 1024 and 2048 bit	
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
Regulatory Compliance	CE Mark Safety: • UL 60950-1:2003 • EN 60950:2000 • EMI and susceptibility (Class A)	• 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
Physical Specifications	Dimensions (WxDxH): 2.5 x 12.25 x 12.25 in. Weight: XR-4420, XR-4430 2.6lbs XR-4820, XR-4830 3lbs	
Environmental Specifications	Operating Temperature: 0-55C, 0-90% humidity, non-condensing	
Channel Support 2.4GHz*	1 2 3 4 5 6 7 8 9 10 11 12 13 14	
Channel Support 5GHz*	UNI I – Non-DFS channels 36 40 44 48 UNI I DFS channels 52 56 60 64	UNI II DFS channels 100 104 108 112 116 120 124 128 132 136 140 UNI III Non-DFS channels 149 153 157 161 165
Management Interfaces	Command line interface Web interface (http / https) Xirrus Management System (XMS)	
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

*All channel selections are based upon country code selections

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Ordering Information

PART NUMBER	DESCRIPTION
Configured Models	
XR-4420	XR Wireless Array consisting of 8 slot chassis with integrated controller, 4 300Mbps 802.11n modular APs, and ArrayOS operating system
XR-4820	XR Wireless Array consisting of 8 slot chassis with integrated controller, 4 450Mbps 802.11n modular APs, and ArrayOS operating system
XR-4430	XR Wireless Array consisting of 8 slot chassis with integrated controller, 8 300Mbps 802.11n modular APs, and ArrayOS operating system
XR-4830	XR Wireless Array consisting of 8 slot chassis with integrated controller, 8 450Mbps 802.11n modular APs, and ArrayOS operating system
Software Licenses	
AOS-x-RXM-ALL network services software	Bundle of RF Analysis Manager (RAM), RF Performance Manager (RPM), and RF Security Manager (RSM) ArrayOS feature packages for 1 modular Access Point
AOS-APPCON	Application Control license enabling Deep Packet Inspection (DPI) for application visibility and control on 1 modular Access Point

Support & Maintenance

Xirrus is committed to the success of our customers and provides warranties and support options to best fit your needs. Xirrus XR Series Wireless Arrays ship from the factory with a 5-year hardware warranty. For further information on the Xirrus hardware warranties, software support and premium support offerings visit:

http://www.xirrus.com/Support/Warranty-Support

About Xirrus

To organizations who depend on wireless access to transform their business, Xirrus is the wireless network solution provider that provides the world's most powerful, scalable, and trusted solutions. Through product invention and system design, commitment to customer success, and the industry's best price performance, Xirrus gives you confidence that your wireless network performs under even the most demanding circumstances. Headquartered in Thousand Oaks, CA, Xirrus is a privately held company and designs and manufactures its family of products.

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