# Xirrus Wireless Array

## XR-2000 Series

Configurations: XR-2220, XR-2230, XR-2420 and XR-2430

DATASHEET

### Introducing the Xirrus XR-2000 Series

The Xirrus XR-2000 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.

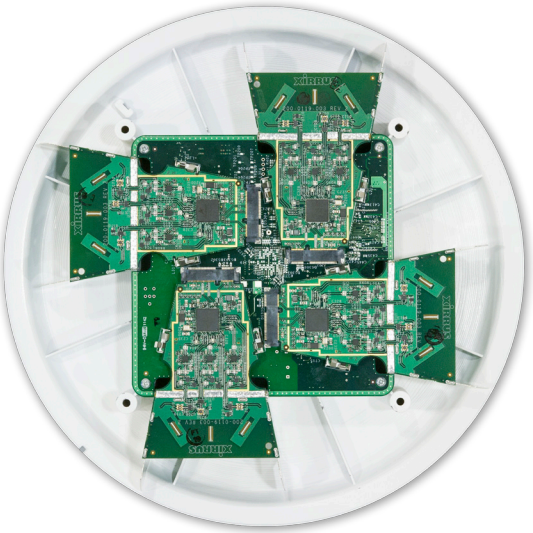
The Xirrus XR-2000 Wireless Array provides superior price/performance value by integrating the unmatched combination of four multi-state (2.4GHz and 5GHz) modular APs with high gain directional antennas, wireless controller, multi-gigabit switch, firewall, threat sensor and spectrum analyzer into a single modular chassis. The XR-2000 is designed to meet a wide variety of wireless networks requirements, including ubiquitous wireless coverage, low to medium user density, and high reliability.

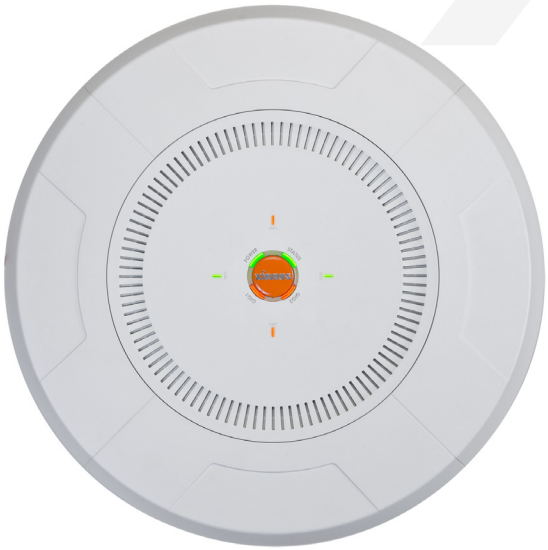
The Xirrus XR-2000 Series 4-slot chassis is the industry's only multi-state radio platform supporting multiple configurations with post-installation upgrade options. The Xirrus XR-2000 Series combines unmatched flexibility in wireless standards with the ability to scale a network to meet increasing demands without adding additional devices.

The XR-2000 utilizes the same multi-state modular APs supported in all Xirrus XR Wireless Arrays, and is available in 300Mbps or 450Mbps 802.11n versions.

**XR-2000 SERIES 4-SLOT CHASSIS**

Shown configured with four multi-state, pluggable radio modules





### At A Glance

- 4 multi-state modular access points (2.4GHz and 5GHz)
- Supports 300Mbps or 450Mbps 802.11n versions
- Supports up to 960 users
- Field upgradable to new wireless technologies (802.11ac, 802.11ad)

### NSP Architecture for Amazing Performance

The architecture of the Xirrus XR-2000 Array 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-2000 radio upgradable wireless platform allows a network to upgrade technologies without full replacement of the Array. Modular APs can be purchased in 300Mbps or 450Mbps versions, and every modular AP is capable of operating at 2.4GHz and 5GHz. The modular XR platform ensures support for new wireless technologies and is the first 802.11ac/11ad-ready product available.

**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.

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## Key Benefits

### Flexible

The XR-2000 adds greater deployment flexibility for Xirrus XR-Series Wireless Array network designs. Engineers have greater flexibility in Array placement to maximize coverage and minimize equipment costs.

### Scalable

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

### Secure

Eliminate potential gaps in security infrastructure with the XR-2000 series virtualized firewall, threat sensor and spectrum analyzer providing comprehensive security without the need for additional equipment.

### Economical

Deploy 50%+ less equipment than competitive solutions and reduce the effort to manage and maintain your wireless network. Realize savings with the XR-2000 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-2220 | XR-2230 | XR-2420 | XR-2430 |
|---|---|---|---|---|
| Chassis Size | 11″ | 11″ | 11″ | 11″ |
| AP Slots | 4 | 4 | 4 | 4 |
| Populated 802.11n Radios | 2 | 2 | 4 | 4 |
| Maximum Wi-Fi Bandwidth | 600Mbps | 900Mbps | 1.2Gbps | 1.8Gbps |
| Dedicated Wi-Fi Threat Sensor | Yes | Yes | Yes | Yes |
| Integrated Antennas | 4 | 6 | 8 | 12 |
| Maximum Wi-Fi Backhaul | 300Mbps | 450Mpbs | 450Mbps | 450Mbps |
| Integrated Switch Ports | 4 | 4 | 4 | 4 |
| Gigabit Ethernet Uplink Ports | 1 | 1 | 1 | 1 |
| Maximum Associated Users | 480 | 480 | 960 | 960 |
| Radio Interface | 2.5Gbps PCI-Express | 2.5Gbps PCI-Express | 2.5Gbps PCI-Express | 2.5Gbps PCI-Express |
| Maximum Power Consumption | 20W | 25W | 24W | 30W |

## Technical Specifications

| FEATURE | SPECIFICATIONS |
|---|---|
| RF Management | In-band per IAP Spectrum Analysis<br>Dynamic channel configuration<br>Dynamic cell size configuration<br>Monitor radio for threat assessment and mitigation<br>Wired and wireless packet captures (including all 802.11 headers)<br>Wired and Wireless Packet Captures<br>Radio assurance for radio self test and healing<br>RF monitor<br>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.<br>Ultra Low Power Mode – Maximize wireless channel re-use and increase wireless device density through tight power controls. |
| 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<br>IEEE 802.1q - VLAN tagging<br>IEEE 802.1AX - Link aggregation<br>IEEE 802.1d - Spanning tree<br>IEEE 802.1p - Layer 2 traffic prioritization<br>IPv6 Control – Increase wireless device density through control of unnecessary IPv6 traffic on IPv4-only networks. |

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## Xirrus XR-2000 Series Wireless Array

| FEATURE | SPECIFICATIONS | |
|---|---|---|
| Channel Support 2.4GHz (channels available based on country code selected) | 1 2 3 4 5 6 7 8 9 10 11 12 13 14 | |
| Channel Support 5GHz (channels available based on country code selected) | UNI I – Non-DFS channels<br>36 40 44 48<br>UNI I DFS channels<br>52 56 60 64 | UNI II DFS channels<br>100 104 108 112 116 120 124 128 132 136 140<br>UNI III Non-DFS channels<br>149 153 157 161 165 |
| Management Interfaces | Command line interface<br>Web interface (http / https)<br>Xirrus Management System (XMS) | |
| Management | SNMP v1, v2c, v3<br>RFC 854 Telnet<br>RFC 1155 Management Information for TCP/IP Based Internets<br>RFC 1156 MIB<br>RFC 1157 SNMP<br>RFC 1212 Concise MIB Definitions<br>RFC 1213 SNMP MIB II<br>RFC 1215 A Convention for Defining Traps for use with the SNMP<br>RFC 1350 TFTP<br>RFC 1643 Ethernet MIB<br>RFC 2030 Simple Network Time Protocol SNTP<br>RFC 2578 Structure of Management Information Version 2 (SMIv2)<br>RFC 2579 Textual Conventions for SMIv2<br>RFC 2616 HTTP 1.1<br>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<br>RFC 2863 The Interface Group MIB<br>RFC 3164 BSD Syslog Protocol<br>RFC 3414 User-based Security Model (USM) for version 3 of the Simple Network Management Protocol (SNMPv3)<br>RFC 3416 Version 2 of the Protocol Operations for the Simple Network Management Protocol (SNMP)<br>RFC 3417 Transport Mappings for the Simple Network Management Protocol (SNMP)<br>RFC 3418 Management Information Base (MIB) for the Simple Network Management Protocol (SNMP)<br>RFC 3584 Coexistence between Version 1, Version 2, and Version 3 of the Internet-standard Network Management Framework<br>RFC 3636 Definitions of Managed Objects for IEEE<br>Xirrus Private MIBs<br>Integration with Splunk for accurate search and analysis of intra-organizational IT events<br>Netflow Export v9 and IPFIX compatibility allows for IP traffic statistics collection |
| Carrier Applications | Passport Certification | |
| RFC Support | RFC 768 UDP<br>RFC 791 IP<br>RFC 2460 IPV6 (Bridging only)<br>RFC 792 ICMP | RFC 793 TCP<br>RFC 826 ARP<br>RFC 1122 Requirements for internet hosts – communication layers<br>RFC 1542 BOOTP |
| Security | WPA<br>IEEE 802.11i WPA2, RSN<br>RFC 1321 MD5 Message-digest algorithm<br>RFC 2246 TLS protocol version 1.0 | RFC 3280 Internet X.509 PKI certificate and CRL profile<br>RFC 4347 Datagram transport layer security<br>RFC 4346 TLS protocol version 1.1 |
| Encryption Types | Open, WEP, TKIP-MIC: RC4 40, 104 and 128 bits<br>SSL and TLS: RC4 128-bit and RDA 1024 and 2048 bit modular AP | |
| Authentication | IEEE 802.1x<br>RFC 2548 Microsoft vendor-specific RADIUS attributes<br>RFC 2716 PPP EAP-TLS<br>RFC 2865 RADIUS Authentication<br>RFC 2866 RADIUS Accounting<br>RFC 2867 Tunnel Accounting<br>RFC 2869 RADIUS Extensions<br>RFC 3576 Dynamic Authorizations extensions to RADIUS<br>RFC 3579 RADIUS Support for EAP<br>RFC 3748 EAP-PEAP<br>RFC 5216 EAP-TLS | RFC 5281 EAP-TTLS<br>RFC 2284 EAP-GTC<br>RFC 4186 EAP-SIM<br>RFC 3748 Leap Pass through<br>RFC 3748 Extensible Authentication Protocol<br>Web Page Authentication<br>• WPR, Landing Page, Redirect<br>• Support for Internal WPR, Landing Page and Authentication<br>• Support for External WPR, Landing Page and Authentication |
| Regulatory Compliance | CE Mark<br>Safety:<br>UL 60950-1:2003<br>EN 60950:2000<br>EMI and susceptibility (Class A) | U.S.:FCC Part 15.107 and 15.109<br>Canada: ICES-003<br>Europe: EN 55022, EN 55024<br>EN 60601-1-2<br>EN 301 893 V1.6.1 |
| Physical Specifications | Dimensions (no connectors): 2.75 x 11.25 x 11.25 in.<br>Weight: 2.2lb | Does not include mounting bracket |
| Environmental Specifications | Operating Temperature: 0 to +55C,<br>0-90% humidity, non-condensing | |

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## Ordering Information

| PART NUMBER | DESCRIPTION |
|---|---|
| **Configured Models** | |
| XR-2220 | XR Wireless Array consisting of 4 slot chassis with integrated controller, 2 300Mbps 802.11n modular APs, and ArrayOS operating system |
| XR-2230 | XR Wireless Array consisting of 4 slot chassis with integrated controller, 2 450Mbps 802.11n modular APs, and ArrayOS operating system |
| XR-2420 | XR Wireless Array consisting of 4 slot chassis with integrated controller, 4 300Mbps 802.11n modular APs, and ArrayOS operating system |
| XR-2430 | XR Wireless Array consisting of 4 slot chassis with integrated controller, 4 450Mbps 802.11n modular APs, and ArrayOS operating system |
| **Software Licenses** | |
| AOS-RXM-ALL | 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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