

# Xirrus Wireless Array

## XR-6000 Series

Configurations: XR-6820, XR-6830, XR-7220, XR-7230, XR-7620, and XR-7630

DATASHEET

### Introducing the Xirrus XR-6000 Series

The Xirrus XR-6000 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-6000 Arrays deliver 4X the coverage, 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-6000 Series 16-slot chassis is the industry's only multi-state radio platform supporting multiple configurations with post-installation upgrade options. The Xirrus XR-6000 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 8, 12 or 16 multi-state radios (2.4GHz or 5GHz)
- Supports 300Mbps or 450 Mbps in 802.11n modes
- Supports up to 1280 users
- Field upgradable to add/change radios or new wireless technologies

#### XR-6000 SERIES 16-SLOT CHASSIS

Shown configured with sixteen multi-state, pluggable radio modules



### NSP Architecture for Amazing Performance

The architecture of the Xirrus XR-6000 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-6000 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, and every radio is capable of operating at 2.4GHz and 5GHz. The modular platform ensures support for new wireless technologies and is the first 802.11ac/11ad-ready product available.

The Xirrus XR-6000 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-6000 Series 16-slot chassis and smaller capacity Xirrus XR-4000 Series 8-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.

## Key Benefits

### Upgradable

Adapt to changes in business requirements with the ability to upgrade across Xirrus XR-6000 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 performance for mission-critical applications and support the ability to handle unpredictable device growth throughout your Wi-Fi network. Scale the number of users by adding radios and scale capacity by increasing the network traffic throughput.

## Configuration Specifications

	XR-6820	XR-6830	XR-7220	XR-7230	XR-7620	XR-7630
Chassis Size	17"	17"	17"	17"	17"	17"
Total Radio Slots	16	16	16	16	16	16
Populated 802.11n Radios	8	8	12	12	16	16
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)	300Mbps Multi-State (2.4GHz or 5GHz)	450Mbps Multi-State(2.4GHz or 5GHz)
Maximum Wi-Fi Bandwidth	2.4Gbps	3.6Gbps	3.6Gbps	5.4Gbps	4.8Gbps	7.2Gbps
Dedicated Wi-Fi Threat Sensor	Yes	Yes	Yes	Yes	Yes	Yes
Integrated Antennas	16	24	24	36	32	48
Max Wi-Fi Backhaul	1.35Gbps	1.35Gbps	1.35Gbps	1.35Gbps	1.35Gbps	1.35Gbps
Integrated Wi-Fi Switch Ports	16	16	16	16	16	16
Gigabit Ethernet Uplink Ports	4	4	4	4	4	4
10 Gigabit Ethernet Uplink Ports	1	1	1	1	1	1
Maximum Associated Users	640	640	960	960	1280	1280
Radio Interface	2.5Gbps PCI-Express	2.5Gbps PCI-Express	2.5Gbps PCI-Express	2.5Gbps PCI-Express	2.5Gbps PCI-Express	2.5Gbps PCI-Express

### Secure

Eliminate potential gaps in security infrastructure with the Xirrus XR-6000 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. Realize savings with the Xirrus XR-6000 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.

## 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) Radio Assurance for radio self test and healing RF monitor
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 802.3u 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



## Xirrus XR-6000 Series Wireless Array

FEATURE	SPECIFICATIONS	
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	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 <ul style="list-style-type: none"> <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> </ul>
Regulatory Compliance	CE Mark Safety: <ul style="list-style-type: none"> <li>• UL 60950-1:2003</li> <li>• EN 60950:2000</li> <li>• EMI and susceptibility (Class A)</li> </ul>	<ul style="list-style-type: none"> <li>• U.S.:FCC Part 15.107 and 15.109</li> <li>• Canada: ICES-003</li> <li>• Japan: VCCI</li> <li>• Europe: EN 55022, EN 55024</li> </ul>
Environmental Specifications	Operating Temperature: 0-55C, 0-90% humidity, non-condensing	
Physical Specifications	Dimensions (WxDxH): 3.25 x 16.875 x 16.875 in. Weight: XR-6820, XR-6830 4.5lbs XR-7220, XR-7230 5lbs XR-7630, XR-7620 5.4lbs	
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	

\*All channel selections are based upon country code selections



## Xirrus XR-6000 Series Wireless Array

FEATURE	SPECIFICATIONS	
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 1213 SNMP MIB II RFC 1350 TFTP RFC 1643 Ethernet MIB RFC 2030 Simple Network Time Protocol SNTP RFC 2616 HTTP 1.1 RFC 3636 Definitions of managed objects for IEEE Xirrus Private MIBs	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 3418 Management Information Base (MIB) for the Simple Network Management Protocol (SNMP)

## Ordering Information

PART NUMBER	DESCRIPTION
<b>Hardware Components</b>	
XC-6000	XR Wireless Array 16-slot chassis
XI-N300	300Mbps 802.11a/b/g/n Integrated Access Point (IAP)
XI-N450	450Mbps 802.11a/b/g/n Integrated Access Point (IAP)
<b>Configured Models</b>	
XR-6820	XR-6000 Chassis with 8 radios that support 802.11a/b/g/n at 300Mbps/IAP
XR-7220	XR-6000 Chassis with 12 radios that support 802.11a/b/g/n at 300Mbps/IAP
XR-7620	XR-6000 Chassis with 16 radios that support 802.11a/b/g/n at 300Mbps/IAP
XR-6830	XR-6000 Chassis with 8 radios that support 802.11a/b/g/n at 450Mbps/IAP
XR-7230	XR-6000 Chassis with 12 radios that support 802.11a/b/g/n at 450Mbps/IAP
XR-7630	XR-6000 Chassis with 16 radios that support 802.11a/b/g/n at 450Mbps/IAP
<b>Software Licenses</b>	
AOS-x-N300	License to enable IAP's at 300Mbps on XR-6000 Chassis (x=total number of IAPs on order)
AOS-x-N450	License to enable IAP's at 450Mbps on XR-6000 Chassis (x=total number of IAPs on order)
AOS-x-RXM-ALL network services software	License to enable RPM (Performance), RSM (Security) and RAM (Analysis) feature options

## Support & Maintenance

Xirrus is committed to the success of our customers and provides warranties and support options to best fit your needs. Xirrus XR-6000 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.php>

## 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 in the USA.



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