Xirrus XR-620 Wireless Access Point

Powerful, Simple, Economical

DATASHEET

Low cost, 2x2 MIMO dual 802.11ac radio AP

The XR-620 provides an economical solution for deploying an 802.11ac wireless network. With a 2x2 radio design that provides twice the performance of 3x3 802.11n, the XR-620 delivers uncompromising performance with a powerful integrated controller, application-level intelligence, automated provisioning, and cloud management – all in one low cost platform.

The XR-620 is the ideal solution for delivering robust high speed wireless across a wide variety of use cases. The 2x2 MIMO technology makes this AP a perfect solution for environments where users predominantly connect to wireless using tablets and smart phones which utilize 1x1 and 2x2 antenna technologies. Example applications for the XR-620 include BYOD environments, hotel rooms, hospital rooms, health clinics, retail areas and similar.

The XR-620 supports ACExpress™ which optimizes wireless performance by automatically segmenting faster 802.11ac clients from slower Wi-Fi clients. Since Wi-Fi is a shared medium, this separation ensures slower 802.11a/b/g/n clients do not slow down 802.11ac clients from achieving high performance.

At A Glance

- Dual radio 2x2 802.11ac AP with 1.7Gbps total Wi-Fi bandwidth
- Two software programmable radios for mixed 2.4/5GHz or dual concurrent 5GHz operation
- 802.11ac speed optimization using ACExpress™
- 2X the performance of a 3x3 802.11n AP
- Supports up to 240 users with 2 – 1Gbps uplinks
- Easy upgrade from 802.11n to 802.11ac with software license
- Integrated Controller with ArrayOS
- On-premise or cloud-based management

Key Benefits

Application Control

Firewall, apply QoS, and manage 1,200+ individual or groups of applications under 15 categories using Layer 7 Deep Packet Inspection (DPI) and other contextual application detection techniques.

5GHz Optimization

With its 2.4GHz and 5GHz radios (both software programmable to either band), the XR-620 will help you easily make the transition to a 5GHz centric network, when you are ready.

ACExpress™ 802.11ac Speed Optimization Technology

Xirrus' ACExpress™ leverages dual concurrent 5GHz radio operation to ensure that 802.11ac clients communicate at 802.11ac speeds without being affected by the slower speeds of legacy 802.11n clients. One 5GHz radio automatically services 802.11ac clients and the other 5GHz radio services 802.11n clients—thus ensuring that 802.11ac/n clients are segregated to maximize throughput.

Bring Your Own Device

Integration with Xirrus Access Manager (XAM) allows guests and employees alike to use personal wireless devices while the XR-620 enforces appropriate access policies.

Uncompromising Performance

Distributed architecture with Integrated controller and multi core processor delivers twice the speed of 802.11n 3x3 APs. The XR-620 AP delivers linear scalability, high resiliency and superior network performance by processing network traffic at the network edge.

Bonjour Director Support

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

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Configuration Specifications

	XR-620
Chassis Size	7.7"
Total Radios	2
Radio Type	Two Software Programmable Radios (2.4GHz or 5GHz) with ACExpress™
Maximum Wi-Fi Bandwidth	1.7Gbps (2 – 867Mbps radios)
Number of Integrated Antennas	4 integrated antennas
Max Wi-Fi Backhaul	867Mbps
Gigabit Ethernet Uplink Ports	2 ports supports 4 different operating modes: • IEEE 802.3ad link aggregation • Daisy chaining (bridge) • Port mirroring (traffic duplication) • Client connectivity (phone, printer etc.)
Maximum Associated Users	240 (120 per radio)
Power Requirements	19.0 Watts (IEEE 802.3at PoE+ compatible)

Technical Specifications

FEATURE	SPECIFICATIONS	
CPU	400MHz Cavium CN6020 Processor with 2 MIPS-64 Cores	
Installed Memory	1GB	
RF Management	In-band per radio Spectrum Analysis Dynamic channel configuration Dynamic cell size configuration Wired and wireless packet captures (including 802.11 headers) Radio assurance for radio self test and healing RF monitor 2.4 & 5.0GHz Honeypot Control – Increase available 2.4 and 5GHz wireless device density through management of spurious association traffic Ultra Low Power Mode – Maximize wireless channel re-use and increase wireless device density through tight power controls	
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	
Wired Protocols	IEEE 802.3 10-BASE-T, IEEE 802.3u 100BASE-TX, 1000BASE-T, IEEE 802.3ab 1000BASE-T IEEE 802.1q – VLAN Tagging 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 IEEE 802.3ad – Link Aggregation	
Carrier Applications	Passpoint 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-bit SSL v3.0 and TLS v1.0: RC4 128-bit and RDA 1024 and 2048-bit	

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Xirrus XR-620 Receive Sensitivity

RATE	2.4GHz RX SENSITIVITY (dBm)	5.0GHz RX SENSITIVITY (dBm)
802.11a		
6Mbps		-92
9Mbps		-92
12Mbps		-91
18Mbps		-90
24Mbps		-87
36Mbps		-83
48Mbps		-79
54Mbps		-78
802.11b		
1Mbps	-91	
2Mbps	-91	
5.5Mbps	-93	
11Mbps	-93	
802.11g		
6Mbps	-93	
9Mbps	-93	
12Mbps	-92	
18Mbps	-91	
24Mbps	-90	
36Mbps	-88	
48Mbps	-83	
54Mbps	-80	
802.11n HT20		
MCS 0	-93	-93
MCS 1	-93	-90
MCS 2	-92	-88
MCS 3	-88	-85
MCS 4	-86	-81
MCS 5	-82	-77
MCS 6	-80	-76
MCS 7	-79	-75
MCS 8	-95	-93
MCS 9	-92	-90
MCS 10	-89	-88
MCS 11	-87	-85
MCS 12	-83	-81
MCS 13	-79	-77
MCS 14	-78	-76
MCS 15	-76	-75
MCS 16	-92	-93
MCS 17	-91	-90
MCS 18	-89	-88
MCS 19	-86	-85
MCS 20	-82	-81
MCS 21	-78	-77
MCS 22	-77	-76
MCS 23	-76	-75
802.11n HT40		
MCS 0	-93	-91
MCS 1	-92	-88
MCS 2	-90	-86
MCS 3	-87	-83

RATE	2.4GHz RX SENSITIVITY (dBm)	5.0GHz RX SENSITIVITY (dBm)
MCS 4	-84	-79
MCS 5	-80	-75
MCS 6	-78	-74
MCS 7	-77	-73
MCS 8	-92	-90
MCS 9	-89	-87
MCS 10	-87	-85
MCS 11	-84	-82
MCS 12	-81	-78
MCS 13	-77	-74
MCS 14	-75	-73
MCS 15	-74	-72
MCS 16	-91	-90
MCS 17	-88	-87
MCS 18	-86	-85
MCS 19	-83	-82
MCS 20	-79	-78
MCS 21	-75	-74
MCS 22	-74	-73
MCS 23	-73	-72
802.11ac VHT20		
MCS 0		-82
MCS 1		-79
MCS 2		-77
MCS 3		-74
MCS 4		-70
MCS 5		-66
MCS 6		-65
MCS 7		-64
MCS 8		-59
MCS 9		-57
802.11ac VHT40		
MCS 0		-88
MCS 1		-85
MCS 2		-83
MCS 3		-80
MCS 4		-76
MCS 5		-72
MCS 6		-71
MCS 7		-69
MCS 8		-67
MCS 9		-66
802.11ac VHT80		
MCS 0		-86
MCS 1		-83
MCS 2		-81
MCS 3		-78
MCS 4		-74
MCS 5		-70
MCS 6		-69
MCS 7		-68
MCS 8		-66
MCS 9		-64

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Xirrus XR-620 Wireless AP

FEATURE	SPECIFICATIONS	
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 5216 EAP-TLS	RFC 5281 EAP-TTLS RFC 2284 EAP-GTC RFC 4186 EAP-SIM RFC 4187 EAP-AKA RFC 3748 Leap Pass through 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 Europe: EN 55022, EN 55024 EN 60601-1-2 EN 301 893 V1.6.1
Physical Specifications	Dimensions (WxDxH): 1.96 x 7.70 x 7.70	Weight: 1.0lbs
Environmental Specifications	Operating Temperature: 0-40C, 0-90% humidity, non-condensing, altitude 0–2000m Non-Operating Temperature: 0-60C, 0-95% humidity, non-condensing	
Channel Support 2.4GHz (Exact channels available will be based on country code selected)	1 2 3 4 5 6 7 8 9 10 11 12 13 14	
Channel Support 5GHz (Exact channels available will be based on country code selected)	UNII–1 – Non DFS Channels 36 40 44 48 UNII–2A – DFS Channels 52 56 60 64	UNII–2C - DFS Channels 100 104 108 112 116 120 124 128 132 136 140 UNII-3 – Non DFS Channels 149 153 157 161 165
Management Interfaces	Command Line Interface (CLI) Web Interface (HTTP and HTTPS)	Xirrus Management System (XMS)
Management Protocols and Standards	SNMP v1 SNMPv2c as per RFCs 1901, 2580 SNMPv3 as per RFC 3410-3415 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

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Ordering Information

PART NUMBER	DESCRIPTION
Configured Models	
XR-620	XR Wireless Access Point with two 2x2 (867Mbps) 802.11ac capable radios licensed for 802.11n, integrated controller, and ArrayOS operating system.
Software Licenses	
AOS-APPCON	Application Control license enabling Deep Packet Inspection (DPI) for application visibility and control
AOS-11AC	802.11ac license enabling 867Mbps data rates
Accessories	
XP1-MSI-30	Optional 30 Watt power injector for use with XR-620. Note the XR-620 is IEEE 802.3at PoE+ compatible
XT-5024	24 GigE + 4 10GigE port L2+ managed switch. Manageable by Xirrus Management System
XT-5048	48 GigE + 4 10GigE port L2+ PoE+ managed switch. Manageable by Xirrus Management System
XE-500-MOUNT	Accessory kit to hang XR-620 from the ceiling
XE-500-WALL	Accessory kit to install XR-620 from the wall with a 90 degree mounting arm

Support & Maintenance

Xirrus is committed to the success of our customers and provides warranties and support options to best fit your needs. Xirrus XR-620 APs ship from the factory with a limited lifetime hardware warranty. For further information on the Xirrus hardware warranties, software support and premium support offerings visit:

http://www.xirrus.com/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. Xirrus is a privately held company headquartered in Thousand Oaks, CA.

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