# Xirrus XR-630 Wireless Access Point

DATASHEET

## 802.11ac AP Performance Optimized with ACExpress™

The XR-630 Access Point represents a new class of value driven, zero touch AP within the Xirrus wireless portfolio. With a powerful integrated controller, application-level intelligence, automated provisioning, and cloud management (optional), the XR-630 delivers a flexible complement to Xirrus' line of modular XR Arrays.

The XR-630 is the ideal solution for providing robust wireless connectivity in areas of low-to-medium user density. Example applications for the XR-630 include hotel rooms, dormitories, hospital rooms, health clinics, office spaces, retail areas and similar.

The XR-630 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 3x3 802.11ac AP with 2.6Gbps total Wi-Fi bandwidth
- Two software programmable radios for mixed 2.4/5GHz or dual concurrent 5GHz operation
- 802.11ac speed optimization using ACExpress™
- Integrated omni-directional, internal antennas
- Supports up to 240 users with 2 – 1Gbps uplinks
- 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.

### 2.4GHz Optimization

Extended radio power control range enables reduced 2.4GHz cell size coverage to optimize channel reuse in dense scenarios and improve user capacity. Honeypot helps increase available wireless device density through management of spurious association traffic.

### 5GHz Optimization

With its 2.4GHz and 5GHz radios (both software programmable to either band), the XR-630 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.

### 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.

### Bring Your Own Device

Integration with Xirrus Access Manager (XAM) allows guests and employees alike to use personal wireless devices while the XR-630 enforces appropriate access policies.

### Discreet Aesthetics

At just 7.7" in diameter, the XR-630 is designed to be compact and aesthetically pleasing.

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## Configuration Specifications

| | XR-630 |
|---|---|
| Chassis Size | 7.7″ |
| Total Radios | 2 |
| Radio Type | Two Software Programmable Radios (2.4GHz or 5GHz) with ACExpress |
| Maximum Wi-Fi Bandwidth | 2.6Gbps |
| Number of Integrated Antennas | 6 integrated antennas |
| Max Wi-Fi Backhaul | 1.3Gbps |
| Gigabit Ethernet Uplink Ports | 2 – supports IEEE 802.3ad link aggregation mode or in daisy chain (bridging) mode |
| Maximum Associated Users | 240 (120 per radio) |
| Radio Interface | PCI-Express |
| Power Requirements | 23.8 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<br>Dynamic channel configuration<br>Dynamic cell size configuration<br>Wired and wireless packet captures (including 802.11 headers)<br>Radio assurance for radio self test and healing<br>RF monitor<br>2.4 & 5.0GHz Honeypot Control – Increase available 2.4 and 5GHz 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, 802.11ac, 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<br>IEEE 802.1q – VLAN Tagging<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<br>IEEE 802.3ad – Link Aggregation | |
| Carrier Applications | Passpoint Certification | |
| RFC Support | RFC 768 UDP<br>RFC 791 IP<br>RFC 2460 IPV6 (Bridging only)<br>RFC 792 ICMP<br>RFC 793 TCP | RFC 826 ARP<br>RFC 1122 Requirements for internet hosts – communication layers<br>RFC 1542 BOOTP<br>RFC 2131 DHCP |
| 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-bit SSL v3.0 and TLS v1.0: RC4 128-bit and RDA 1024 and 2048-bit | |

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## Xirrus XR-630 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-630 Wireless Array

| FEATURE | SPECIFICATIONS | |
|---|---|---|
| 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>5216 EAP-TLS | RFC 5281 EAP-TTLS<br>RFC 2284 EAP-GTC<br>RFC 4186 EAP-SIM<br>RFC 4187 EAP-AKA<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 (WxDxH): 1.96 x 7.70 x 7.70 | Weight: 1.6lbs |
| Environmental Specifications | Operating Temperature: 0-40C, 0-90% humidity, non-condensing, altitude 0–2000m<br>Non-Operating Temperature: 0-60C, 0-95% humidity, non-condensing | |
| Channel Support 2.4GHz<br>(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<br>(Exact channels available will be based on country code selected) | UNII–1 – Non DFS Channels<br>36 40 44 48<br>UNII–2A – DFS Channels<br>52 56 60 64 | UNII–2C - DFS Channels<br>100 104 108 112 116 120 124 128 132 136 140<br>UNII-3 – Non DFS Channels<br>149 153 157 161 165 |
| Management Interfaces | Command Line Interface (CLI)<br>Web Interface (HTTP and HTTPS) | Xirrus Management System (XMS) |
| Management Protocols and Standards | SNMP v1<br>SNMPv2c as per RFCs 1901, 2580<br>SNMPv3 as per RFC 3410-3415<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 2819 Remote Network Monitoring Management Information Base<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 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 |

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## Ordering Information

| PART NUMBER | DESCRIPTION |
|---|---|
| **Configured Models** | |
| XR-630 | XR Wireless Access Point with 2 1,300Mbps (or 1.3Gbps) 802.11ac radios, 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 full 1.3Gbps data rates |
| **Accessories** | |
| XP1-MSI-30 | Optional 30 Watt power injector for use with XR-630. Note the XR-630 is IEEE 802.3at PoE+ compatible |
| XT-5024 | 24+4 port L2+ PoE+ managed switch. Manageable by Xirrus Management System |
| XT-5048 | 48+4 port L2+ PoE+ managed switch. Manageable by Xirrus Management System |
| XE-500-MOUNT | Accessory kit for ceiling mount to hang XR-630 from the ceiling |
| XE-500-WALL | Accessory kit for wall mount to install XR-630 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-630 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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