



HIGH DENSITY ACCESS POINT

TECHNICAL BRIEF

The Xirrus High Density Access Points are the highest capacity Wi-Fi APs on the planet and deliver massive scalability to meet the demands of today's mobile users. These High Density APs feature powerful multi-core integrated controller, application-level intelligence, automated provisioning, and optional cloud management. The Xirrus High Density AP is ideal for providing robust wireless connectivity in areas of medium user density such as 1:1 classrooms, lecture halls, meeting rooms, open floor office area and for Internet of Things (IOT) sensor networks.

Configuration Specifications

	XD4
Chassis Dimensions	10"
Supported Standards	802.11a/b/g/n/ac
Total Number of Radios	4
Radio Type	3x3 11ac 1.3Gbps
MIMO Technology	SU-MIMO
Maximum Wi-Fi Bandwidth	5.2Gbps
Dedicated Wi-Fi Threat Sensor	Yes
Antennas	12(Internal)
Maximum Wi-Fi Backhaul	3.9Gbps
Maximum Associated Users	780
Wired Uplinks 802.3ad (Aggregate traffic), broadcast, link-backup (failover), load balance	2 - 1GbE
Maximum Power Consumption	25.5W (PoE+)
Weight	2.5lbs



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Technical Specifications

FEATURE	SPECIFICATIONS	
RF Management	Dynamic channel configuration Dynamic cell size configuration Monitor radio for threat assessment and mitigation Wired and Wireless RMON / Packet Captures Radio assurance for radio self test and healing	RF monitor 2.4 & 5Ghz Honeypot Control – Increase available 2.4 & 5Ghz wireless device density through management of spurious 2.4 & 5Ghz association traffic. Re-use and increase wireless device density through tight power controls.
High Availability	Supports hot stand-by mode for mission critical areas	
Environmentally Friendly	Supports ability to turn off radios based on schedule configuration	
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, 802.11w	
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. DHCP option 82	
Carrier Applications	Passpoint 2.0 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 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"> • WPR, Landing Page, Redirect • Support for Internal WPR, Landing Page and Authentication • Support for External WPR, Landing Page and Authentication • Support for Xirrus Guest Access System
Regulatory Compliance	CE Mark <ul style="list-style-type: none"> • EU CE Mark • EN300 328 V1.8.1, • EN 301 893 V1.7.1 • EN 301 489-1 V1.9.2, EN 301 489-17 V2.2.1 • EN55022/EN55024 • US FCC Part 15 subparts B, C, E • FCC [47 C.F.R. 1.1307(b), 1.1310, 2.1091, 2.1093] • Canada ICES-003 • Canada RSS-247 • Canada RSS-102 	Safety <ul style="list-style-type: none"> • UL60950-1 2nd Edition • CAN/CSA C22.2 No. 60950-1-07, 2nd Edition, 2011-12 • EN 60950-1:2006/A2:2013 • IEC 60950-1:2005/A2:2013 • EN 60950-22:2006+AC:2008 (Outdoor Units) • UL60950-22 (Outdoor Units) • CSA C22.2 No 60950-22-07 (Outdoor Units)
Environmental Specifications	Operating Temperature: 0-55C, 0-90% humidity, non-condensing Storage Temperature: -40C to 70C	



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Channel Support 2.4GHz (Channel selections are based upon country code selections)	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14	
Channel Support 5GHz (Channel selections are based upon country code selections)	U-NII-1 – Non-DFS channels 36 40 44 48 U-NII-2A DFS channels* 52 56 60 64	U-NII-2C DFS channels* 100 104 108 112 116 120 124 128 132 136 140 144 U-NII-3 Non-DFS channels 149 153 157 161 165
Management Interfaces	Command line interface Web interface (http / https)	Xirrus Management System (XMS) XMS-Cloud XMS-Enterprise
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 (SMIPv2) RFC 2579 Textual Conventions for SMIPv2 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

* Currently not available on select models. DFS channels will be available upon regulatory certification.



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Receive Sensitivity

RATE	2.4GHz	5GHz
	RX Sensitivity (dBm)	RX Sensitivity (dBm)
802.11a		
6Mbps		-92
9Mbps		-92
12Mbps		-91
18Mbps		-90
24Mbps		-87
36Mbps		-83
48Mbps		-79
54Mbps		-78
802.11b		
1Mbps	-93	
2Mbps	-90	
5.5Mbps	-87	
11Mbps	-84	
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

RATE	2.4GHz	5GHz
	RX Sensitivity (dBm)	RX Sensitivity (dBm)
802.11n HT40		
MCS 0	-93	-91
MCS 1	-92	-88
MCS 2	-90	-86
MCS 3	-87	-83
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		-91
MCS 1		-88
MCS 2		-86
MCS 3		-83
MCS 4		-79
MCS 5		-75
MCS 6		-73
MCS 7		-71
MCS 8		-69
MCS 9		-67
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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PART NUMBER	DESCRIPTION
Configured Models	
XD4-130	High Density AP consisting of 4 fixed 1.3Gbps capable 802.11ac radios with integrated controller; includes 802.11ac license
Software Licenses	
AOS-APPCON	Application Control license enabling Deep Packet Inspection (DPI) for application visibility and control on 1 radio
Accessories	
XP1-MSI-30	Port 30W PoE Injector that powers 1 AP. Requires order of appropriate XS-PWR-XX cord for the country where the AP will be deployed.
Mounting Brackets	Refer to accessories guide for options, part numbers and detailed information.

About Xirrus

Xirrus provides the only enterprise Wi-Fi networks specifically designed for the real-time demands of an all-wireless world. Xirrus' cloud managed Wi-Fi solutions are scalable, future proof, easy to use and provide application control, which makes Xirrus the obvious choice for small, medium, or large-scale Wi-Fi networks. Xirrus' unique network architecture can scale to double and quadruple the number of users, without performance impact or the need for additional wiring and access points. And it's designed to evolve with the changes in Wi-Fi technology and standards, so you won't need to replace your Xirrus network, even after a decade of use. Xirrus solutions are deployed in 4000 networks worldwide, and we are proud to call some of the biggest companies on the planet our clients.