



XS-3900 Overview

- > Embedded Wi-Fi Controller/Switch
- > 12 802.11a Integrated Access Points
- > 4 802.11a/b/g Integrated Access Points
- > Multi-sector Antenna System
- > Gigabit Ethernet Switch
- > Dedicated Wi-Fi Threat Sensor
- > Wi-Fi Firewall

.....All in a Single Device.

Value Delivered

- > Wi-Fi Bandwidth: Up to 864Mbps
- > Typical Coverage: 125,000sqft
- > 75% Fewer Devices to Deploy & Manage
- > Integrated Intrusion Detection & Prevention

Xirrus has taken wireless deployments to the next level by combining all the major components of a Wi-Fi network into a single, easy to deploy device. The XS-3900 Wi-Fi Array is a Wi-Fi Controller/Switch, 16 802.11 Integrated Access Points and a high-gain Multi-sector Antenna System that delivers 864Mbps of Wi-Fi bandwidth over an extended coverage area.

The Integrated Access Points are co-located in a circular configuration using a high gain, Multi-sector Antenna System delivering increased directional transmit and receive gain in all directions. This unique approach increases rate and range in all directions and reduces the number of devices needed in the Wi-Fi network – greatly simplifying and reducing the cost of deployment.

Ideal for large scale, dense Wi-Fi deployments in education, healthcare, warehouses and other enterprise applications, the XS-3900 maximizes performance and range for a secure, manageable Wi-Fi network. The XS-3900 is modular in design to allow upgradeability of its radio technology to support future 802.11 standards like 802.11n.

High Performance Wi-Fi for Data | Voice | Video

- 864Mbps of Wi-Fi bandwidth
- 14X the throughput of a typical Access Point
- Low latency Wi-Fi with end-to-end QoS

Long Range Wi-Fi means Fewer Devices to Deploy

- 2X the range = 4X more coverage
- 75% fewer Access Points, cabling, and switch ports
- Simplified site planning

High Density Wi-Fi to Support Thousands of Users

- Supports over 1,000 simultaneous users
- Up to 162Mbps of self-healing Array-to-Array wireless backhaul
- Support for Fast Ethernet speed Wi-Fi “Campus Mesh”

Structured Wi-Fi™ to Bring Order to Wireless

- “Perfect Fit” coverage with per sector control of transmit power & receiver sensitivity
- Optimizes transmit power, channel and receiver sensitivity
- Load balances clients between Integrated Access Points

Highly Secure Wi-Fi to Detect & Protect Against Threats

- 24x7 embedded Intrusion Detection & Prevention
- Latest encryption and authentication support
- Integrated Wi-Fi Firewall and Filtering

Highly Resilient Wi-Fi for Peace of Mind

- Overlapping radios prevent dropped sessions and calls
- Self-healing Wi-Fi backhaul to ensure sustained throughput
- “Hot Standby” mode provides complete Array-to-Array failover

Lower Cost than Previous Generations

- One Array typically covers the same area as 4 competitive Access Points

- Requires no additional closet equipment as the Wi-Fi Controller/Switch is built-in
- Every Array includes a dedicated & integrated Wi-Fi Threat Sensor

Specifications

Embedded Wi-Fi Controller/Switch

- 2Gbps switching fabric
- 768MB RAM expandable
- 128MB system FLASH expandable
- Xirrus PCI-X Expansion Slot for future options
- Line speed performance of Encryption Engines

Radio Interfaces

- 12 802.11a
- 4 802.11a/b/g, one of which can be a dedicated Wi-Fi Threat Sensor

RF Bandwidth

- 864Mbps aggregate

Wireless Standards

- 802.11a, 802.11b/g and 802.11g-only modes
- 802.11d, 802.11e, 802.11h, 802.11i
- Upgradeable to 802.11n

Sectored Antennas

- 12 internal 6dBi 60° 802.11a sectored antennas
- 4 internal 3dBi 180° 802.11a/b/g sectored antennas
- 1 internal 2dBi 360° Omni-directional antenna
- 3 RP-TNC connectors for external antennas

Frequency Bands 802.11a/b/g

- 11b/g: 2.412-2.462 GHz (FCC)
- 11b/g: 2.412-2.472 GHz (ETSI)
- 11b/g: 2.412-2.484 GHz (TELEC)
- 11a: 4.940-4.990 (Safety)
- 11a: 5.15-5.25 GHz (UNII I)
- 11a: 5.15-5.25 GHz (TELEC)
- 11a: 5.25-5.35 GHz (UNII II)
- 11a: 5.470-5.725 (ETSI)
- 11a: 5.725-5.825 GHz (UNII III)

Coverage Pattern

- Typical office environment is 125,000sqft
- Each RF Sector individually configurable

Security

- WPA-TKIP: WPA-PSK-TKIP, WPA-AES, WPA-PSK-AES
- WPA2-802.11i: WPA2-AES, WPA2-PSK-AES, WPA2-TKIP, WPA2-PSK-TKIP
- WEP 40bit/128bit encryption
- Integrated Firewall & Filtering
- Supports multiple security settings
- Station to Station blocking
- Define access by time of day

User and System Authentication

- WPA Pre-shared Key authentication
- Web Page Redirect (Captive Portal)
- Built-in RADIUS Server – Supports up to 1,024 users
- 802.1X EAP-TLS
- 802.1X EAP-TTLS
- 802.1X PEAP (MS-CHAPv2)
- LEAP pass-through
- MAC Access Control Lists

Intrusion Detection and Prevention

- Continuous RF monitoring across all 220 802.11 channels
- GUI console presents real-time view of wireless network health
- Detection & prevention (wired & wireless) of Rogue APs
- Packet level sniffing and decoding
- Notification of alerts & alarms
- Detailed compliance reporting

Users Supported

- Supports up to 64 associated users per Integrated Access Point
- Recommended provisioning of 20 users per Integrated Access Point

Ethernet Interfaces

- Two Gigabit interfaces (10/100/1000) with failover
- One Fast Ethernet 10/100 interface

Serial Interface

- One RS232 with RJ45 connector

Resiliency

- 100% overlap between RF sectors
- Dual Gigabit uplinks offer failover
- Complete Array to Array failover

Wireless Backhaul

- Up to 3 Integrated Access Points Bonded – 162Mbps per link
- Up to 4 Wireless Backhauls per Array
- WDS links offer automatic failover

Channel Selection

- Manual, Automatic

Client Load Balancing

- Automatic between Integrated Access Points

Roaming

- Caches Pairwise Master Keys (PMK) between Arrays for fast L2 & L3 roaming

Quality of Service (handled at the Array)

- 802.1p wired traffic prioritization
- 802.11e wireless prioritization
- MAP COS to TCID
- Fair Queuing of downstream traffic
- Spectralink Voice Priority (SVP)

Status LEDs

- System Status LED
- Ethernet (3) and Radio (16) Status LEDs

Networking Services

- DHCP Client, DHCP Server (Multiple Pools), NAT, NTP
- 802.1D Spanning Tree Protocol
- IGMP Snooping/Pruning

VLAN Support

- 802.1Q compliant
- Supports up to 16 VLANs

Management

- Web-based HTTPS, SNMPv1/v2c, CLI via SSHv2, FTP, TFTP and Xirrus MIB
- Syslog Reporting for alerts/alarms
- Integrated on-line help
- Centralized L3 management of multiple Arrays via the optional Xirrus Management System (XMS)

Radio Approvals

- FCC (United States)
- ETSI (Europe)

Environmental

- 0C to 50C
- 0-90% humidity (non-condensing)

Safety and EMI Compliance

- FCC Class A
- UL/cUL EN60950
- EN60601

Dimensions

- Diameter 18.65in (47.37cm)
- Height 3.87in (9.83cm)
- Weight 10lbs (4.54kg)

Input Power Requirements

- 90 to 265VAC or 48VDC @ 2A

Warranty

- One Year Hardware
- 90 days Software

Wi-Fi Array Model Number:

XS-3900-16

Model Description

- 2Gbps embedded W-Fi Controller/Switch
- 12 802.11a Integrated Access Points
- 4 802.11a/b/g Integrated Access Points
- Includes ceiling mounting kit

Ordering Part Numbers

XS-3900-16, AC, NA
XS-3900-16, DC, NA (use with XP-3100)

802.11n Upgradeable

- Pre-architected to support 802.11n
- Modular, replaceable radios
- 802.11n Upgrade Program available



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