



WI-FI ALERT

PREPARE TO MOVE FASTER

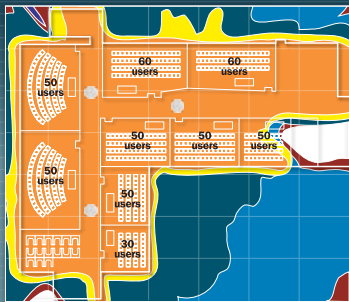
GIGABIT WI-FI FROM XIRRUS >>>

CUSTOMERS CHOOSE XIRRUS BECAUSE...

BEST COVERAGE, BANDWIDTH, AND THROUGHPUT

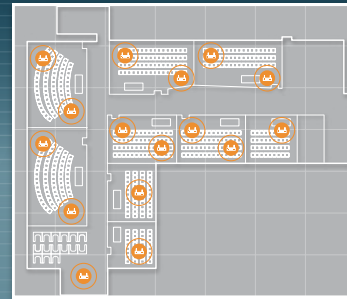
WITH LESS DEVICES, CABLING, AND COST

Xirrus is the only 'Power Play' in Wi-Fi networking capable of covering more area, supporting more users, and providing more bandwidth per cable drop.



Xirrus Offering...

- 3 Wi-Fi Arrays
- 2.6Gbps
- Reduction in devices, cabling, ports, and labor



Competitive Offering...

- 16 APs + Controller
- 1.7Gbps
- Required 5X more devices, cabling, ports, and labor

## Best Performance

Integrates up to 16 radios and a Gigabit Ethernet Switch into a single device delivering...

- Up to 864Mbps of 802.11a/b/g bandwidth
- 2 Gbps of integrated switching fabric (802.11n upgradeable)

## Best Range

High-gain, sectored antennas delivering...

- 2x the range = 4x more coverage
- 75% fewer devices, cable drops, and installation time

## Best Density

Directional antennas and an onboard Gigabit Ethernet switching fabric delivering...

- Up to 1,000 simultaneous data users
- Fast Ethernet Wi-Fi "Campus Mesh"

## Best Encryption

Latest security capabilities at the edge of the network...

- Wirespeed, hardware-based encryption
- Latest encryption and authentication along with integrated firewall and filtering

## Best RF Shaping & Management

Programmable RF functionality delivering...

- Automatic cell sizing and coverage shaping based on changing RF conditions
- Built-in 2.4GHz and 5GHz spectrum analyzer

## Best Availability Wi-Fi

Multiple levels of resiliency delivering...

- Redundancy at the radio, uplink, Array, and backhaul level that prevent dropped sessions and calls
- Monitoring and self-healing of all integrated access points

## Who is Xirrus?

Xirrus is the leader in High Performance Wi-Fi.

## What is our vision?

For Wi-Fi implementations to succeed, they must cover large areas, support large user populations, and/or high bandwidth applications with a quality of experience (QoE) and level of security equivalent to wired networks.

## What do we do?

We manufacture the patented Wi-Fi Array platform that integrates up to 16 radios with an onboard Gigabit Switch, Wi-Fi Controller, Wi-Fi Firewall, and dedicated Wi-Fi Threat Sensor into a single device.

## What sets us apart from the competition?

Xirrus Wi-Fi Arrays deliver the highest performance, longest range Wi-Fi in the industry. The Xirrus solution delivers 2X the range, 4X the coverage, 8X the bandwidth, 14X the throughput, and requires 75% less devices, cabling, switch ports, and installation time compared to any competitive solution available today.

## What is Xirrus' long term sustainable differentiation?

Xirrus' long term sustainable differentiation is based upon RF innovation. This focus on RF innovation (specifically RF isolation, management, and shaping) has enabled us to produce the Wi-Fi Array platform that has longer range, greater throughput, and the ability to handle a greater number of users far and above any of our competitors. The Wi-Fi Array platform (HW and SW) and the patents that protect it have "secured" Xirrus as the long term leader in high performance Wi-Fi.

## Xirrus is the only Wi-Fi Power Play delivering the...

👤 Most coverage

👤 Most bandwidth

👤 Most throughput

...with 75% less devices, cabling, switch ports, and installation time

University of Toronto Baylor University Viewpoint School Westin Ma  
Brigham Young University Boulder Valley Schools Starwood Sherat  
Carnegie Mellon University Forsyth County Schools Wicomico County Schools C  
University of Denver University of the Pacific Worcester County Scho  
Carsound Exhaust Systems Niagara Water Syndicate Systems

The Xirrus Wi-Fi Array represents the next generation in wireless LAN (WLAN) architectures — integrating up to 16 Wi-Fi radios with an onboard WLAN controller, Gigabit Switch, Firewall, and a dedicated Wi-Fi Threat Sensor into a single device.



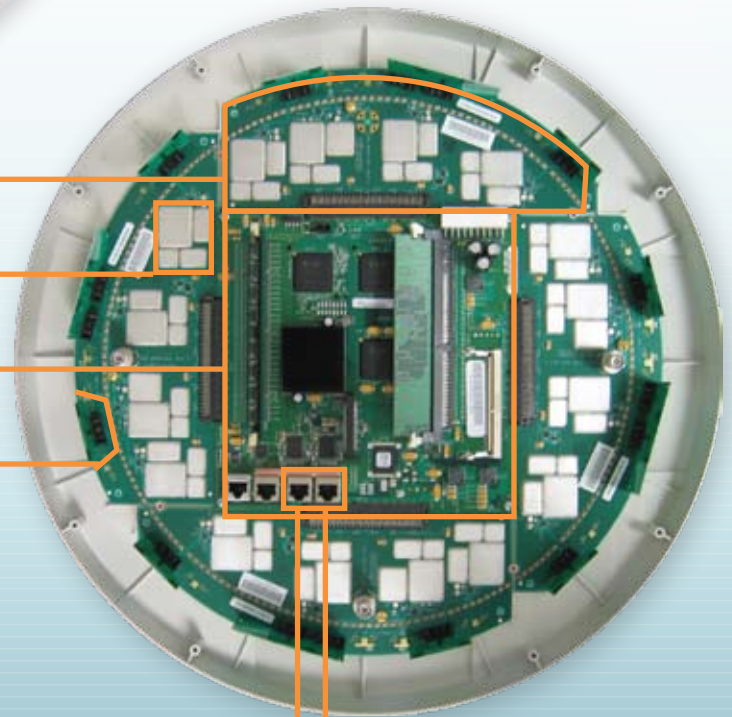
## Fully integrated...

- Wi-Fi Controller
- Gigabit Ethernet Switch
- Gigabit Uplinks
- Multiple Access Points
- Sectored Antenna System
- Spectrum Analyzer
- Wi-Fi Stateful Firewall
- Wi-Fi Threat Sensor

...All in a single device

...Upgradeable to 802.11n

- Modular radio boards provide upgradeability
- Multiple Wi-Fi radios produce more bandwidth
- Onboard Wi-Fi Controller delivers an intelligent edge
- High-gain directional antennas increase range






Ethernet Switch



Redundant Gigabit Ethernet Uplinks for failover

riott Four Seasons Interop Japs-Olsen Aspect Energy OZ Architecture  
n Best Western Albuquerque Convention Center Facebook Occam Networks  
harleston Convention Center Connexus County of San Bernardino, CA  
olsITU Geneva Convention Center Hospital Central Services Sawion  
Manufacturing Liverpool Women's Hospital Raydiance City of Pueblo, CO OptiFrame

# Individual Array Specifications

		XS-3500	XS-3700	XS-3900
<b>Wi-Fi Management</b>				
<b>RF Specifications</b>	Maximum Wi-Fi Bandwidth	216Mbps	432Mbps	864Mbps
	Typical Coverage Area (Indoor)	75,000sqft	125,000sqft	125,000sqft
	Integrated 802.11a/b/g Access Points	4	4	4
	Integrated 802.11a Access Points		4	12
	<b>Total Integrated Access Points</b>	<b>4</b>	<b>8</b>	<b>16</b>
	Dedicated Wi-Fi Threat Sensor	Yes	Yes	Yes
<b>Sectored Antenna Specifications</b>	Maximum Wi-Fi Backhaul Link	162Mbps	162Mbps	162Mbps
	RP-TNC Connectors	1	3	3
	802.11b/g	3dBi (180°)	3dBi (180°)	3dBi (180°)
<b>Wi-Fi Switch Specifications</b>	802.11a	3dBi (180°)	6dBi (90°)	6dBi (60°)
	RF Monitor	2dBi (360°)	2dBi (360°)	2dBi (360°)
	Integrated Wi-Fi Switch Ports	4	8	16
<b>Xirrus Management System</b>	Switching Fabric	1 Gbps	2 Gbps	2 Gbps
	Uplink Ports	1 Gigabit	2 Gigabit	2 Gigabit
	10/100 Management Port		1	1
	Maximum Associated Users	256	512	1024
	<b>Layer 3 Centralized Management for up to 500 Arrays</b>			

## General Array Specifications

### Wireless Standards

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

### Frequency Bands 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)

### RF Management

- Automatic channel optimization
- Automatic cell sizing
- Each RF sector individually configurable
- Sharp Cell technology tightly controls edge of cell coverage
- Integrated RF Spectrum Analyzer

### Wireless Backhaul

- Up to 3 Integrated Access Points Bonded – 162Mbps per link
- Up to 4 Wireless Backhauls per Array
- Automatic link failover

### Multiple SSID Support

- Up to 16 separate SSIDs can be defined
- Map Security, VLAN, QoS and Guest Access settings to each SSID
- Set SSIDs by frequency band
- Set bandwidth limits per SSID
- Tie specific DHCP pools per SSID

### 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 2.4GHz and 5GHz 802.11 channels
- GUI console presents real-time view of wireless network health
- Detection & prevention (wired and 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 15 users per Integrated Access Point

### Resiliency

- 100% overlap between RF sectors
- Dual Gigabit uplinks offer failover
- Complete Array to Array failover mode
- Redundant wireless backhaul connections

### Client Load Balancing

- Automatic between Integrated Access Points

### Roaming

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

### VLAN Support

- 802.1Q compliant
- Supports up to 16 VLANs

### 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)

### Serial Interface

- One RS232 with RJ45 connector

### Networking Services

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

### 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

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

### Safety and EMI Compliance

- FCC Class A
- UL/cUL EN60950
- EN60601

### Warranty

- One Year Hardware
- One Year Software

### 802.11n Upgradeable

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

# Wi-Fi Reference Posters

Wireless technologies, standards, architectures, and acronyms can be a confusing mess to understand. Xirrus created the educational Wi-Fi Reference Poster Program to help you become a Wi-Fi expert.

Go to [www.xirrus.com/posters](http://www.xirrus.com/posters) to access the Wi-Fi Posters, Companion Guides, Podcasts, Crossword Puzzles, and limited edition Xirrian T-shirts.



**Xirrus, Inc.**  
[www.xirrus.com](http://www.xirrus.com) | [sales@xirrus.com](mailto:sales@xirrus.com)  
370 North Westlake Blvd. Suite 200  
Westlake Village, California 91362  
805.497.0955 Corporate Office  
800.947.7871 Sales  
805.449.1180 Fax

Copyright© 2007, Xirrus, Inc. All Rights Reserved. Xirrus and the Xirrus Logo are trademarks of Xirrus, Inc. All other trademarks belong to their respective owners. Protected by Patent #US D526,973 S. Other patents pending.