

# ZoneSwitch™ 4000 Series

Enterprise-Class Power over Ethernet  
Gigabit LAN switch



## Fully Managed Power over Ethernet Layer 2 Gigabit Smart Switches

The Ruckus Wireless ZoneSwitch 4000 series is a family of fully managed, Power over Ethernet (POE), 24-port Gigabit Layer 2 LAN switches specifically designed for the packet processing needs of connecting ZoneFlex Smart Wi-Fi access points to the enterprise network infrastructure. The ZoneSwitch 4000s feature advanced scalability, wire-speed Layer 2 switching, mobility, quality of service (QoS), security, and ease of management.

The ZoneSwitch 4224 supports 24 Gigabit Ethernet ports of 802.3at POE providing up to 30W per port (375W total budget). The ZoneSwitch 4124 supports 24 Gigabit Ethernet ports of 802.af POE providing up to 15W per port (180W total budget). Of the 24 Gigabit LAN ports, four ports are dual personality supporting 1000BASE-SX and LX Small Form-Factor Pluggable (SFP) fiber transceivers for easy and flexible uplinks.

Enterprises can easily and affordably build high-speed Ruckus ZoneFlex 802.11n wireless networks that deliver wire-like reliability and consistent performance at range, which drives the need for fully managed POE Gigabit Layer 2 LAN Switches. The ZoneSwitch 4000 series are cost effective solutions ideal for enterprise deployment at the edge of the network.

The ZoneFlex Smart Wi-Fi 802.11n access points are purpose-built for hotels, schools and enterprises by enabling high-definition IPTV, video-on-demand and other video applications while supporting data applications for guests and employees.

## BENEFITS

### Cost effective Layer 2 smart switch

Supports up to 24 WLAN APs per switch, the ZoneSwitch can easily serve edge network deployments

### Flexible POE options

Provides 802.3at and 802.3af POE options to power devices such as IP-based VoIP phones eliminating the need for more power cords that add cost to the installation

### Guaranteed throughput for Ruckus ZoneFlex 802.11n Smart Wi-Fi APs

Non-blocking, wire-speed architecture maximizes data throughput from 802.11n wireless LANs to enterprise networks

### Easy uplink deployment options

Four dual personality ports support 1000BASE-SX and LX Small Form-Factor Pluggable fiber transceivers for easy and flexible uplinks

### Seamless mobility

Up to 256 VLANs and dynamic VLANs with GVRP support separating types of traffic for seamless user mobility

### Advanced QoS capabilities

Supports 802.1p base priority, port based priority, DSCP (Diffserv), TOS (IP Precedence) and IGMP snooping for real-time voice and video functions

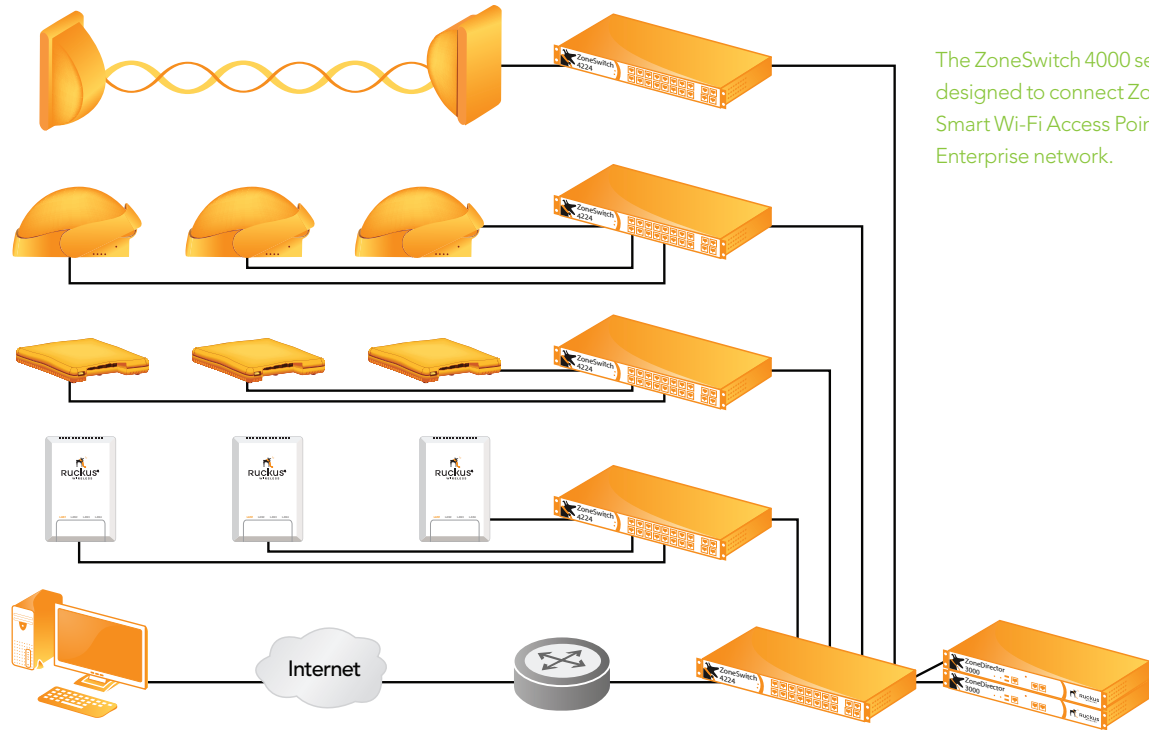
### Standard security

Easy integration with existing 802.1X and RADIUS to secure ZoneSwitches

### Fully manageable

Easily manage ZoneSwitches with SNMP, Telnet, and TACACS +





The ZoneSwitch 4000 series is designed to connect ZoneFlex Smart Wi-Fi Access Points to the Enterprise network.

The ZoneSwitch 4000 supports up to 256 VLANs and dynamic VLANs with GVRP for separating type of traffic for seamless mobility.

Built-in support for advanced QoS capabilities including 802.1p base priority, port based priority, DSCP (Diffserv), TOS (IP Precedence) and IGMP snooping provide real-time voice and video functions.

The ZoneSwitch 4000 easily integrates with existing 802.1X and RADIUS security and authentication infrastructure, and combines network management with SNMP, Telnet, and TACACS + within a low-cost solution.

### HARDWARE FEATURES

- Thin 1U rackmountable footprint
- 24 Gigabit POE ports supports 802.3af with 180W POE budget, or 802.3at with 375W POE budget
- 4 dual personality ports support 1000BASE-SX and LX Small Form-Factor Pluggable (SFP) fiber transceivers for flexible uplinks
- Limited lifetime hardware warranty coverage

### SOFTWARE/SWITCHING FEATURES

- Full line rate, non-blocking Gigabit switching architecture
- Support for 256 VLANs per port, protocol based VLANs, and dynamic VLANs with GVRP
- Static trunk and 802.3ad LACP, jumbo frame support
- Broadcast storm control, 802.1d/w/s STP, RSTP and MSTP support
- Advanced QoS including L2 802.3 flow control, IGMP v1/v2 snooping, Layer 2 multicast forwarding and filtering, L3 DiffServ, 802.1p and DSCP/TOS based priority
- Security policies include 802.1X support for RADIUS and TACACS +, MAC based authentication, and L2/3/4 ACL filtering
- Web-based GUI supports HTTP and HTTPS/SSL connections, full CLI
- Software upgrade and configuration upload/download via TFTP or HTTP
- SNMP v1/v2c/v3, Telnet/SSHv2, TACACS +, and Syslog

# Specifications

## PHYSICAL CHARACTERISTICS

### POWER

- Internal power adapter
- Input voltage: 100-240V AC, 50-60Hz
- Input current: 8A for ZS4224, 4A for ZS4124
- Max power rating including full PoE operations: ZS4124 225W, ZS4224 525W
- PoE power budget: ZS4124 180W, ZS4224 375W

### PHYSICAL SIZE

- 440mm(L), 257mm(W), 44mm(H)
- Mounts in an EIA-standard 19" rack

### WEIGHT

- ZS4124: 3930g (8.65lbs)
- ZS4224: 4380g (9.64lbs)

### PHYSICAL PORTS

- 20 auto-MDI/MDIX, auto sensing 10/100/1000 Mbps, RJ-45 Ethernet access ports
- 4 dual personality ports support auto-MDI/MDIX, auto sensing 10/100/1000 Mbps, RJ-45 Ethernet access ports, or SFP slots for 1000 BASE-SX/LX transceiver modules.
- Ports 1-24 provide 802.3af Class0/2 or 802.3at POE power
- One DB-9 console port for local management

### LED DISPLAY

- Power/status

### ENVIRONMENTAL CONDITIONS

- Operating temperature: 32°F (0°C) – 113°F (45°C)
- Storage temperature: -20~70°C
- Operating humidity: 10-90% non-condensing
- Storage humidity: 10-95% non-condensing

## MANAGEMENT

### CONFIGURATION AND OPERATION

- Web-based GUI interface supports HTTP and HTTPS/SSL connections, full CLI, Serial Console Port, Future FlexMaster Management
- SNMP v1/v2c/v3, Telnet/SSL/SSHv2, TACACS +, and Syslog
- Ping, SNMP, LLDP
- Port mirroring

### STATISTICS

- MIBII, BridgeMIB, EtherlikeMIB, P-BridgeMIB, Q-BridgeMIB, InterfaceMIB, RMON Group 1, 2, 3, 9

### SOFTWARE UPDATES

- Software upgrade and configuration upload/download via TFTP or HTTP

## L2 SWITCHING

### VLANs

- 802.1Q VLAN (256)
- Port-based VLAN, protocol-based VLAN and GVRP
- Static trunk and 802.3ad LACP
- Jumbo frame support
- Broadcast storm control
- 802.1d/w/s STP, RSTP and MSTP support

## SECURITY

### AUTHENTICATION

- 802.1X support for RADIUS, TACACS +

### LOCAL AUTHENTICATION

- MAC based authentication

### FILTERING

- L2/3/4 ACL

## MULTIMEDIA AND QUALITY OF SERVICE

### L2

- 802.3 flow control
- Layer 2 multicast forwarding and filtering
- Packet marking and remarking

### L3

- L3 DiffServ
- 802.1p based priority
- DSCP/TOS based priority
- IGMP v1/v2 snooping
- Traffic shaping and policing

## CERTIFICATIONS

### COUNTRIES

- U.S., EU, Canada, Australia, China, India, Indonesia, Malaysia, Philippines, Singapore, New Zealand

## Product Ordering Information

Model	Description
<b>ZoneSwitch 4000 Series</b>	
901-4224-XX00	ZoneSwitch supporting up to 24 Gigabit Ethernet ports of 802.3at POE
901-4124-XX00	ZoneSwitch supporting up to 24 Gigabit Ethernet ports of 802.af POE

**PLEASE NOTE:** When ordering you must specify the destination region by indicating -US, -EU, -UK, -UN, -AU, -UU or -IN instead of XX.

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