



4+24+4 Managed PoE++ Industrial Ethernet Rack Mount Switch

ETH-R042404GXMP-BT-DC-1

High Density Industrial Ethernet Switch with 10G Uplinks

RLH managed industrial switches are engineered to provide reliable network performance in harsh environments. The 32-Port Managed Gigabit SFP PoE++ Switch delivers high-density copper and fiber Gigabit Ethernet connectivity with four 10 Gigabit SFP+ uplink ports for high-bandwidth backbone connections. The four IEEE 802.3bt PoE++ ports provide up to 90W per port with a maximum shared PoE power budget of 360W, allowing the switch to power demanding network devices while simplifying installation.

This environmentally hardened Layer 3 switch offers extensive management, monitoring, and security capabilities, including VLAN, QoS, IGMP, SNMP, RMON, Modbus TCP, and advanced authentication protocols for secure industrial networking. Support for ITU-T G.8032 Ethernet Ring Protection Switching (ERPS) provides rapid network recovery in the event of a link failure, helping maintain reliable communications for critical industrial and utility applications.

Designed for demanding environments, the switch features a rugged IP30-rated rack-mount enclosure, fanless operation, and an extended operating temperature range of -40°C ~ +75°C. Its high port density, advanced management features, and industrial reliability make it an ideal solution for SCADA, utility, automation, and other mission-critical Ethernet networks.

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Key Features



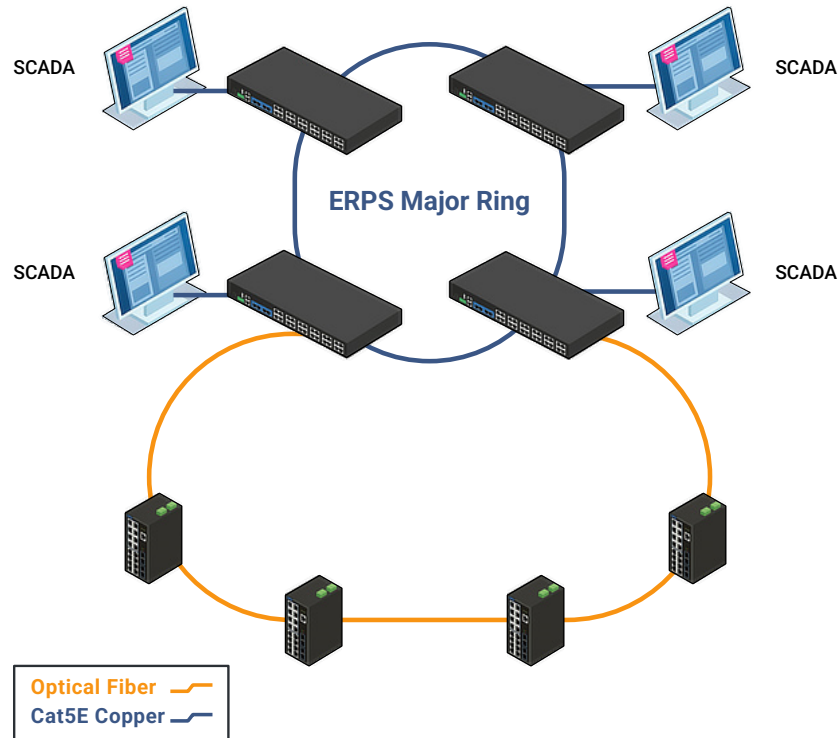
Management

- Layer 3 switch with Static Routing, RIP, OSPF, and VRRP
- Network Ring support: G.8032 ERPS v2, STP, RSTP, and MSTP
- Configuration via Web, CLI, Console, Telnet, and SSH
- Supports VLANs, SNMP v1/v2c/v3, ACLs, IPv4/IPv6, and QoS
- Advanced security with RADIUS, TACACS+, 802.1X authentication, and IP Source Guard
- Advanced PoE management including Persistent PoE & PoE Ping Alive

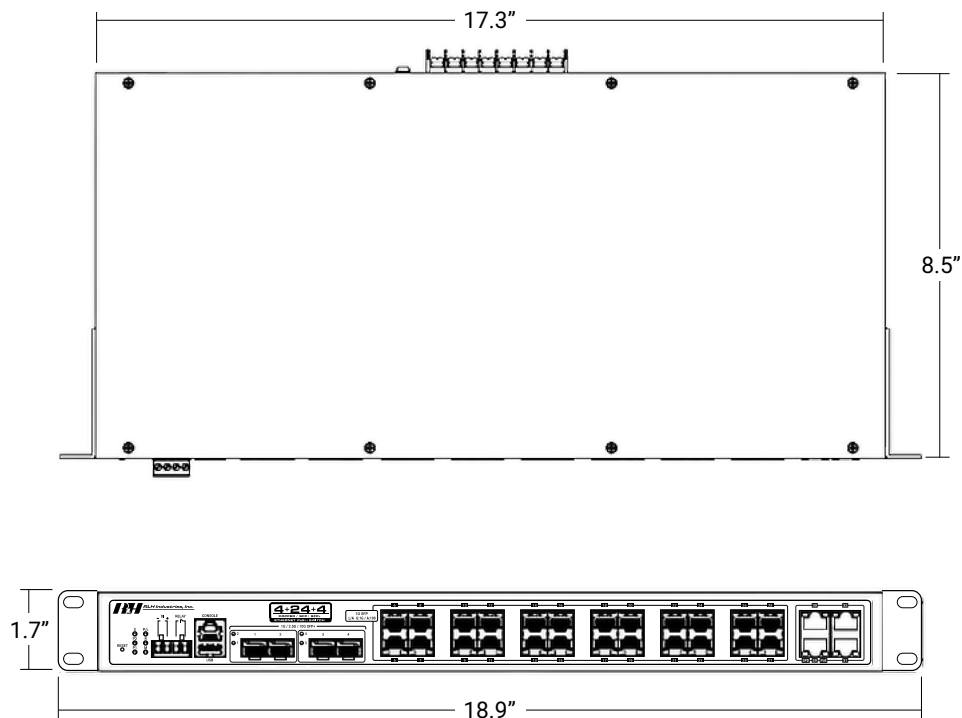
System

- 4 Gigabit IEEE 802.3bt PoE++ ports, up to 90W per port
- 24 dual-rate 100/1000Base-X SFP fiber ports
- 4 multi-rate 1G/2.5G/10G SFP+ uplink ports
- Hardened to operate in -40°F ~ +167°F (-40°C ~ +75°C)
- Redundant DC power inputs with alarm relay
- Rack-mount IP30 industrial enclosure
- Fanless design for reliable, maintenance-free operation

Application



Dimensions





General Specifications

Switching Architecture	Layer 3, Managed	
Ethernet Interface	Auto-Negotiation, Full/Half-Duplex, Auto-MDI/MDIX	
Data Process	Store and Forward	
Standards	IEEE 802.3 10Base-T (Ethernet) IEEE 802.3u 100Base-TX (Fast Ethernet) IEEE 802.3ab 1000Base-T (Gigabit Ethernet) IEEE 802.3z 1000Base-X (Gigabit Fiber) IEEE 802.3ae 10 Gigabit Ethernet IEEE 802.1p Quality of Service (QoS) IEEE 802.3x Flow Control IEEE 802.3ad Link Aggregation (LACP)	IEEE 802.1d STP (Spanning Tree Protocol) IEEE 802.1w RSTP (Rapid Spanning Tree Protocol) IEEE 802.1s MSTP (Multiple Spanning Tree Protocol) IEEE 802.1Q Virtual Local Area Network (VLAN) IEEE 802.3bt Power over Ethernet Plus Plus (PoE++) IEEE 802.1p Quality of Service (QoS) IEEE 802.1X Network Authentication IEEE 802.1AB Link Layer Discovery Protocol (LLDP) ITU-T G.8032/Y.1344 ERPS (Ethernet Ring Protection Switch)
Switching Capacity	128Gbps	
Forwarding Rate	416.64 Mpps	
Jumbo Frame	10KBytes	
MAC Table Size	32K	
Packet Buffer	32Mbits	
Max. VLANs	4095	
Transfer Rate	14,880pps for Ethernet Port 148,800pps for Fast Ethernet Port 1,488,000pps for Gigabit Ethernet Port 14,880,000pps for 10 Gigabit Ethernet Port	
Network Protocols	Network Access / Configuration	HTTP, HTTPS, SSHv2, CLI, Telnet, DHCP Client, DHCP Server, DHCPv6 Client, TFTP
	Network Communication	IPv4/IPv6, ICMPv6, LLDP, LLDP-MED, Modbus TCP
	Network Discovery	ARP, DNS Client, DNS Proxy
	Network Monitoring	NTP Client, RMON, SNMP v1/v2c/v3, Syslog, sFlow, SMTP, DDMI
	Network Redundancy	ERPS v1/v2 (G.8032, <50ms Recovery), LACP, STP/RSTP/MSTP
Security Features	802.1X Authentication, ACLs, ACEs, ARP Inspection, DHCP Snooping, IP Source Guard, MAC Authentication, Port Security, VLAN Assignment, IP MAC Binding, Broadcast/Multicast/Unicast Storm Control, RADIUS, TACACS+, SCP, Secure FTP	
Layer 3 Switching	Static Routes, RIP/RIPng, OSPFv2/v3, VRRPv2/v3, NAT, DHCP Option 82	
QoS Features	802.1p Priority Queuing, DSCP, Storm Control, Traffic Policing & Shaping	
PoE Features	Persistent PoE, PoE Time Scheduling, PoE Alive Check, PoE Power Budget Management	
Power Optimization	IEEE 802.3az Energy-Efficient Ethernet (EEE), ActiPHY, PerfectReach	
Configuration	HTTP, HTTPS, Telnet, SSH, CLI, TFTP, SNMPv3, Console Port, USB Configuration Backup/Restore	
System Diagnostics	Dual Image Protection, Ping, Ping6, Programmable Alarm Relay, Power Loss Warning	
Ethernet Ports	4x Copper	10/100/1000Base-T(X), IEEE 802.3bt PoE++ (90W per Port)
	24x Fiber	100/1000Base-X SFP Slots
	4x Fiber	1G/2.5G/10G SFP+ Slots
Serial Port	1x RJ45 Console Port	
USB Port	USB Configuration Backup/Restore	
Digital Input	1x Digital Input	State 0: -30 to 8VDC State 1: 10 to 30VDC Maximum Input Current: 8mA



General Specifications (continued)

Programmable Alarm	1x Relay	Normally Closed (SPST), 24VDC, 1A Resistive
LED Status Indicators	System:	Power Input 1 (P1), Power Input 2 (P2), Master, Ring, Status, PoE Load
	Ethernet Ports	Speed, Link, Activity
	PoE Ports	PoE Output Status
	SFP/SFP+ Ports	Link, Activity
Power Input	Dual 48–55VDC Redundant Power Inputs	
Power Connection	Fixed 8-contact Terminal Block	
Power Protection	Over Current Protection, Reverse Polarity Protection	
Power Consumption	35W Maximum (Switch Only)	
Max. PoE Power Budget	360W	
Max. PoE Output	90W Per PoE Port	
Construction	Metal, IP30 Protection	
Case Dimensions	17.32" (W) × 8.46" (D) × 1.73" (H)	
Installation	Standard 19" Rack Mount	
Temperature	Operating Temperature	-40°C ~ 75°C (-40°F ~ 167°F)
	Storage Temperature	-40°C ~ 85°C (-40°F ~ 185°F)
Operating Humidity	5 to 95% (Non-Condensing)	
EMI	FCC Part 15 Subpart B Class A, CE EN55032, EN61000-6-4 Class A	
EMS	CE EN55035, EN61000-6-2, IEC61000-4-2 (ESD), IEC61000-4-3 (RS), IEC61000-4-4 (EFT), IEC61000-4-5 (Surge), IEC61000-4-6 (CS), IEC61000-4-8 (Magnetic Field)	
Stability Testing	IEC60068-2-6 (Vibration), IEC60068-2-27 (Shock), IEC60068-2-32 (Free Fall)	
Safety	UL 61010-1 (Pending), UL 61010-2-201 (Pending), ISA12.12.01 (Pending)	
Compliance	IEC 61850-3 (Pending), RoHS Compliant	
MTBF	69,654 Hours (Telcordia SR-332, Issue 3, GB, 25°C)	
Warranty	5 Year - Visit www.fiber opticlink.com for warranty details	

Ordering Information

Description	Part Number
4+24+4 Managed Gigabit PoE++ Industrial Ethernet Switch, SFP (100/1G), SFP+ (1G/2.5G/10G), 48–55VDC	ETH-R042404GXMP-BT-DC-1

- Contact your RLH Sales Representative for more information

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