



PRODUCT INFORMATION

The leader in
rugged fiber optic
technology.

✓ Unconditional
Lifetime Warranty

2011D-0607

RLH 24 Port Fiber Switch with 2 Gigabit UTP + SFP Ports

Rack Mounted Managed Fiber Switch with SNMP

The RLH 24 Port Managed Fiber Switch is a layer 2 managed switch that offers 24 100Base-FX ports with 1x9 optic transceivers, together with 2 Gigabit SFP/Gigabit Ethernet ports. The 24 100Base-FX optical interfaces may be dual fiber single mode or multimode, or bi-directional single fiber, and have a transmission distance up to 120Km/74 miles.

The switch's gigabit fiber and gigabit Ethernet interfaces are for combo use, so that 2 ports in any combination may be used at once. The 1000Base-FX fiber interfaces use SFP transceivers, either single mode or multimode, which can transmit up to 80Km/50 miles of fiber optic cable. The 2 RJ-45 1000Base-Tx Ethernet ports provide convenient integration with existing copper-based network topologies.

The RLH 24 Port Layer 2 managed fiber switch provides powerful management functions including control over the system, port, network, VLAN, trunk, priority, security management, and more. The switch may be managed through SNMP, WEB and an RS-232 Telnet/Console port. The imbedded web software allows the user to check the system configuration, modify IP network parameters, and modify access and login passwords.

The RLH 24 port fiber switch with 2 gigabit SFP + UTP combo ports takes up 1RU and comes complete with EIA19" rack ears for rack mount applications, or it may be used on a desktop or shelf. It is an ideal option for institutional use, medium/small enterprises and intelligent community networks that need to accommodate various services such as video, VOIP and high speed data over fiber.

The fiber optic ports allow for Ethernet network extension over long distances, and provides electrical isolation between fiber networks. They come complete with a 115VAC internal power supply and power cord, and are covered by our Exclusive Unconditional Lifetime Warranty.



24 Port Fiber Switch with combo ports

Standard Features

24 Port 100Base-FX 1x9 transceivers, 2 Gigabit SFP or 2 Gigabit Ethernet Ports combo, 1 RS232 Console Port

IEEE 802.3, IEEE 802.3u, IEEE 802.3ab, IEEE 802.3z, IEEE 802.1Q, IEEE 802.1D, IEEE 802.1x compliant

Supports IEEE 802.3x flow control for full-duplex mode and collision-based back-pressure for half-duplex mode

RJ-45 ports are auto MDI/MDIX, auto negotiating

Managed through SNMP, WEB and an RS-232 Telnet/Console port

Supports 26 Port-based VLAN, 256 IEEE 802.1Q VLAN

Supports Ip address setting and dynamic learning (DHCP)

Supports port trunk function, port mirroring, port priority, TOS priority, IEEE 802.1p priority

Supports SNMP, HTTP / FTP / TFTP remote software upgradeable

Supports TELNET function to configure and monitor local and remote devices through TCP/IP network

Support broadcast/multicast/dlf storm control, it can reduce broadcast/multicast/dlf storm

Includes optical line local loopback and remote loopback functions

Support SNMP V1, V2, and RMON

19" 1RU rack mount form factor, steel enclosure

Built-in 115/220VAC or 48VDC power supply

General Specifications

Standards	IEEE802.3u 100BASE-FX Fast-Ethernet, IEEE802.3z/ab 1000BASE-FX/TX 1000M-Ethernet, IEEE802.3x, IEEE 802.1d Spanning Tree Protocol, IEEE802.1P QOS, IEEE802.1Q VLAN, IEEE802.1V Port Based VLAN, IEEE802.1ad Provider bridges, IEEE802.1x access control, IEEE802.1w Speed Spanning Tree protocol, IEEE802.1S multiple Spanning Tree, RFC 1157 SNMP, RFC 1112/2236 IGMP, RFC854 Telnet, RFC 1123/1493/1643 MIB			
Ports	24 Port 100Base-FX, 1x9 optical transceivers			
	2 Gigabit SFP and 2 Gigabit Ethernet Ports combo			
	1 RS232 Console Port			
Bandwidth	8.8Gbps			
	Packet forward rate (100Mbps port): 1,488,000pps			
	Packet forward rate (1000Mbps port): 1,488,000pps			
MAC address	8K			
Switching mode	Store and forward, On-chip packet buffering			
VLAN	26 Port-based VLAN, 256 IEEE 802.1Q VLAN			
Flow Control Mode	IEEE 802.3x flow control for full-duplex mode and collision-based back-pressure for half-duplex mode			
LED Indicators	Link/Act for each port			
	Power ON			
Port Management	SNMP, WEB and Telnet/Console management			
Fiber Type / Connector / Distance (See Note 1)	Single Fiber, Bi-directional	Multimode	SC	2km / 1.2 miles
		Single-mode	ST, SC, FC	20km / 12.4 miles
				40km / 24.9 miles
	Dual Fiber	Multimode	ST, SC, FC	2km / 1.2 miles
		Single-mode	ST, SC, FC	20km / 12.4 miles
				60km / 36 miles
				120km / 74 miles
Fiber	Multimode	62.5/125, 50/125 μ m		
	Single-mode	9/125 μ m		
Dimensions	W 17.4" x D 14.2" x H 1.75" / 443mm x 360mm x 44.5mm			
	EIA 19" Rack Mountable, 1RU rack height			
Power	AC 110~220V 35W or DC-48V Internal or External Power Supply			
Temperature	Operating	-4°F to +140°F (-20°C to +60°C)		
	Storage	-13°F to +149°F (-25°C to +65°C)		
Humidity	5~90% non-condensing			

Note:

1. Refer to ordering information for available connector/fiber type/distance configurations.

Ordering Information

24+2+2 Port Managed Fiber Switch with 1x9 transceivers + 2 GE SFP/UTP combo ports

RLH - FSM2422 - XX X -1

See Configuration Code 1 = 115/220VAC Power Supply
2 = 48VDC Power Supply

Config. Code	Multimode	Single Mode	Single Fiber Bi-Directional	Dual Fiber	SC Connector	ST Connector	FC Connector	2km/1.25mi. range	20km/12.4 mi. range	40km/24.9 mi. range	60km/37 mi. range	120km/74 mi. range	Tx 310nm/Rx 550nm	Tx 550nm/Rx 310nm	310nm	550nm
01	•		•		•			•					•			
02	•		•		•			•						•		
03	•			•	•			•							•	
04	•			•		•		•							•	
05	•			•			•	•							•	
06	•			•	•			•								•
07	•			•		•		•								•
08	•			•			•	•								•
10		•	•		•				•				•			
11		•	•		•				•					•		
12		•	•		•					•			•			
13		•	•		•					•				•		
14		•	•		•						•		•			
15		•	•		•						•			•		
20		•	•			•			•				•			
21		•	•			•			•					•		
22		•	•			•				•			•			
23		•	•			•				•				•		
24		•	•			•					•		•			
25		•	•			•					•			•		
30		•	•				•		•				•			
31		•	•				•		•					•		
32		•	•							•			•			
33		•	•				•			•				•		
34		•	•				•				•		•			
35		•	•				•				•			•		
40		•		•	•				•						•	
41		•		•	•						•				•	
42		•		•	•						•				•	
43		•		•	•				•							•
44		•		•	•						•					•
45		•		•	•						•					•
50		•		•		•			•						•	
51		•		•		•					•				•	
52		•		•		•					•				•	
53		•		•		•			•							•
54		•		•		•					•					•
55		•		•		•					•					•
60		•		•			•		•						•	
61		•		•			•				•				•	
62		•		•			•				•				•	
63		•		•				•				•				•
64		•		•			•				•					•
65		•		•			•					•				•

- ▶ For bidirectional single fiber models, Tx wavelength must match the Rx wavelength of connecting equipment, and conversely, Rx wavelength must match Tx wavelength of connecting equipment.
- ▶ Bidirectional optic wavelength may be special ordered. Contact factory for availability.
- ▶ Please contact your RLH sales representative for pricing and delivery information.

Ordering Information

SFP Optical Transceivers, 1.25GBit

(Ordered Separately)

RLH - SFP - XX -1

↓ Configuration Code

Code	Multimode	Single Mode	Single Fiber Bi-Directional	Dual Fiber	SC Connector	LC Connector	0.5km/0.3mi. range	2km/1.25mi. range	20km/12.4 mi. range	40km/24.9 mi. range	60km/37 mi. range	80km/50 mi. range	Tx 850nm/Rx 1300nm	Tx 1300nm/Rx850nm	1310/1550nm
01	●		●		●			●					●		
02	●		●		●			●						●	
03	●			●		●	●								●
10		●	●		●			●					●		
11		●	●		●			●						●	
12		●	●		●				●				●		
13		●	●		●				●					●	
14		●	●		●					●			●		
15		●	●		●					●				●	
20		●	●			●			●				●		
21		●	●			●			●					●	
22		●	●			●				●			●		
23		●	●			●				●				●	
30		●		●		●		●							●
31		●		●		●					●				●
32		●		●		●						●			●

- ▶ For bidirectional single fiber models, Tx wavelength must match the Rx wavelength of connecting equipment, and conversely, Rx wavelength must match Tx wavelength of connecting equipment.
- ▶ Bidirectional optic wavelength may be special ordered. Contact factory for availability.
- ▶ Please contact your RLH sales representative for pricing and delivery information.

Warranty

RLH is recognized throughout the U.S. and offers the only **UNCONDITIONAL LIFETIME WARRANTY** in the telecommunications industry. We are very proud of our warranty which simply states that our Fiber Optic Link Assemblies are warranted to be free of defects in material and workmanship for the **LIFE OF THE PRODUCT**.

We can offer this warranty because:

- We believe our customers shouldn't have to incur additional costs due to failure or damage
- We engineer and manufacture our Fiber Optic Links in the USA, with total confidence in our quality
- We understand how safety and reliability impact the total cost of ownership
- We know that customer support extends beyond the initial sale, so **we stand behind our products**

RLH will replace any product, or part thereof, that fails **FOR ANY REASON**, provided the defective part is returned to RLH Freight prepaid. This warranty is **UNCONDITIONAL** and valid even when RLH Fiber Optic Link Assemblies have been abused or mishandled, where unauthorized repairs have been attempted or performed, or product has been damaged as a result of a natural disaster. Compare this warranty to our competitors and see how our warranty will reduce your costs and simplify your maintenance activities.

To make a warranty claim, or schedule repair or replacement of your RLH product, please contact us for an RMA number. You will be promptly assisted by one of our warranty specialists. All returns must have an RMA number before we can receive any items.

Technical Support

Normal technical support: (Mon - Fri 6am - 6pm PST)	Local (714) 532-1672 Toll Free (800) 877-1672 Toll Free (866) DO-FIBER
24/7 Technical support:	(714) 366-2503 (714) 396-8982 (714) 457-5740

Contact Information

Corporate Headquarters:	RLH Industries, Inc. 936 N. Main Street Orange, CA 92867 USA
Phone:	Local (714) 532-1672 Toll Free (800) 877-1672 Toll Free (866) DO-FIBER
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Web site:	www.fiberopticlinc.com

RLH FIBER OPTIC LINK

RLH Industries, Inc. The Leader in Fiber Optic Telecom Isolation Technology

LIFETIME


UNCONDITIONAL WARRANTY

RLH INDUSTRIES, INC. FIBER OPTIC LINK assemblies are warranted to be free of defects in materials and workmanship for the life of the product. This lifetime warranty is effective for RLH products sold from February 2, 1988, to the present, with the exception of fiber optic cable assemblies which are warranted only to be free of defects in manufacturing and batteries, which carry a 5-year unconditional replacement warranty.

RLH Industries, Inc. will repair or replace any product, or part thereof, that fails for any reason, provided the defective part is returned to RLH, freight prepaid.

This warranty is UNCONDITIONAL and is valid even when RLH Fiber Optic Link assemblies have been abused or mishandled, where unauthorized repairs have been attempted or performed, or product has been damaged as a result of a natural disaster.

Authorized by:



J. RANDALL MEARS, Vice President, Engineering



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Please contact your RLH sales representative for pricing and delivery information.

Specifications subject to change without notice.