



RLH Industries, Inc.

DATA SHEET

The leader in
rugged fiber optic
technology.

✓ Unconditional
Lifetime Warranty

R2010E-0721

RLH POTS Fiber Mux System

2 CHANNEL VOICE WITH ETHERNET DATA OVER FIBER OPTICS

Product Information and Specifications

Description

The 2 channel RLH POTS Fiber Mux Systems provide a comprehensive method of multiplexing analog (POTS) channels over a single pair of multimode or single mode fibers. This compact DIN rail mountable system solves the problem of adding POTS lines when available fiber is limited, reduces equipment space, and lowers overall equipment costs.

The 2 channel POTS Mux System includes two 10/100M Ethernet ports for LAN interconnection. All ports operate simultaneously over the fiber optic cable.

The RLH 2 Channel POTS Mux System provides a method of converting two Separate 2-Wire analog telephone lines and two separate 10/100 Ethernet channels over one fiber. Available in either single mode or multimode with the ability to operate up to 60km over single mode fiber.

A complete 2x1 system consists of one FXO/CO and one FXS/Sub and is available in either stand alone, DIN, wall or plug-in card from factor. The Plug-in cards conveniently install into any of the RLH card housings, and may used as stand alone or in multiple 2x1 POTS Mux configurations. FXO/CO and FXS/Sub system with optional Din, Rack or Wall power supplies available from RLH Industries.

The 2 channel mux utilizes industry standard digital multiplexing technology, and integrates the digital logic functions. Its small size and flexible installation configurations allow for straightforward installation and simple maintenance.



2 Channel Analog Phone Fiber Mux System, DIN mount

ANALOG PHONE FIBER MUX SYSTEM

Features

Single or Dual Fiber Connector

2 channels of analog telephone with "caller ID display" feature

Convenient LED status indicators

2 shared RJ45 UTP ports with 10/100 automatic Half or Full-Duplex auto-negotiation

Alarm indication function

Compatibility with IEEE 802.3 10Base-T UTP, 100Base-TX, and 100Base-FX Devices

Extends network span up to 1.25 miles (2km) on multi-mode and up to 74 miles (120km) on single-mode fiber with dual connectors.

Includes 110VAC -5vdc or Optional DC-DC Power Supply

Wall, Din, Stand Alone or Plug-in Card Style

Exclusive Unconditional Lifetime Warranty

Specifications subject to change without notice.

FXO/CO (Central Office) Side Unit

The FXO/CO side unit provides the electrical-optical interface between PSTN or PABX 2-wire copper POTS lines, Ethernet devices or LAN, and the optical fiber cable. Powering options include local 115-240VAC, 48VDC or 24VDC power.

FXS/Sub (Subscriber Side) Side Unit

The FXS/Sub side provides the electrical-optical interface between the copper 2-wire POTS line devices (phones, fax, modem), Ethernet devices or LAN and the optical fiber cable. Powering options include local 115-240VAC, 48VDC or 24VDC power. FXS/Sub units are electrically different from FXO/CO units and cannot be interchanged.

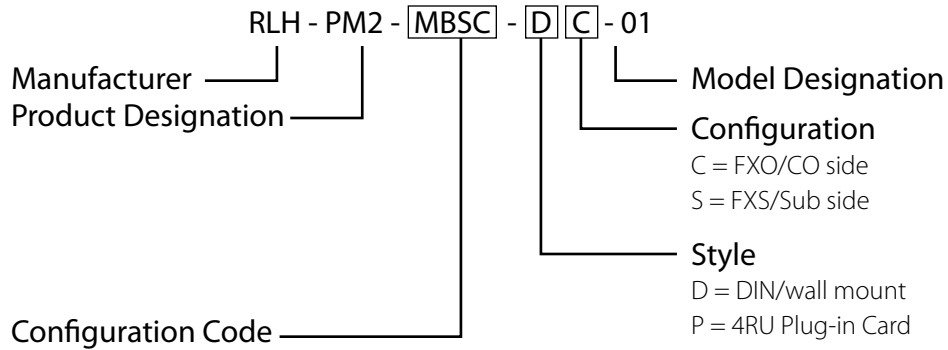


4RU Plug-in Card model

LED indicators

Label	Name	Color	Status	Description
PWR	Power	Green	ON	Power is ON
FOC	Fiber Optic Connection	Red	ON	Fiber connector installed
			OFF	Fiber connector disconnected
LOF	Loss of Frame	Red	ON	Fiber or copper frame lost
			OFF	Fiber or copper frame normal
RAI	Remote Alarm Indicator	Yellow	ON	Loss of fiber or copper signal
			OFF	Fiber or copper signal normal
DATA (TP ports)	Ethernet Data	Yellow	Blinking	Ethernet data is transmitting or receiving
			OFF	No Ethernet data activity
LNK (TP ports)	Ethernet Link	Green	ON	Ethernet connected
			OFF	Ethernet disconnected
CH1 (Phone ports)	Channel 1 Phone Port	Yellow	OFF	Channel 1 phone is not active
			ON	Channel 1 phone is off hook
			Blinking	Channel 1 phone is dialing
CH2 (Phone ports)	Channel 2 Phone Port	Green	OFF	Channel 2 phone is not active
			ON	Channel 2 phone is off hook
			Blinking	Channel 2 phone is dialing

Ordering Information



Code	Multimode	Single Mode	Single Fiber Bi-Directional	Dual Fiber	SC Connector	ST Connector	FC Connector	1.25mi./2km range	12.4 mi./20km range	24.9 miles/40km range	37 mi./60km range	74 mi./120km range
MBSC	●		●		●			●				
MMSC	●			●	●			●				
MMST	●			●		●		●				
MMFC	●			●			●	●				
S1SC		●	●		●				●			
S3SC		●	●		●					●		
S1ST		●	●			●			●			
S3ST		●	●			●				●		
S1FC		●	●				●		●			
S3FC		●	●				●			●		
S2SC		●		●	●				●			
S4SC		●		●	●						●	
S5SC		●		●	●							●
S2ST		●		●		●			●			
S4ST		●		●		●					●	
S5ST		●		●		●						●
S2FC		●		●			●		●			
S4FC		●		●			●				●	
S5FC		●		●			●					●

- ▶ Example: **RLH-PM2-MBSC-DC-01**
RLH 2x1 POTS mux configured as multimode, single bi-directional fiber; SC connector; 1.25mi./2km range, DIN/wall mount style, FXO/CO side configuration.
- ▶ All models include RJ-11 breakout adapter cables for easy connection to existing POTS lines
- ▶ 115VAC to 5VDC power adapter included
- ▶ Please contact your RLH sales representative for pricing and delivery information

General Specifications

Transmission method	Frequency modulated light via two optical fibers Multimode: 850nm/1310nm Single-mode: 1310nm/1550nm		
Maximum Fiber Attenuation / Distance	Single Fiber, Bi-directional	Multimode (62.5/125µm):	1.25mi./2 km range
		Single-mode (9/125µm):	12.4 miles/20km range
	Dual Fiber	Multimode (62.5/125µm):	24.9 miles/40km range
		Single-mode (9/125µm):	1.25mi./2 km range
			12.4 miles/20km range
			37 mi./60km range
			74 mi./120km range
Fiber Type	(ST, SC or FC connectors) Multimode: 62.5/125µm, Single-mode: 8-9/125µm		
Consumption	+2 to -11dBm		
Sensitivity	Better Than -36dBm		
BER	<10 ⁻⁹		
Phone Connector	RJ-45 Shared for both POTS Channels		
Audio Frequency	300Hz-3400Hz		
Impedance	200Ω 560Ω//0.1µF		
Compression Ratio	Class A in ITU G.711		
Loop Current	25mA		
Ethernet	10/100M, full/duplex, auto negotiation		
Protocol	IEEE 802.3		
WAN Rate	100% Wire-Speed 100M		
Ethernet Connector	RJ-45		
Power Requirements	5VDC, 1A		
Power Supplies	Choice of -48 to 5Vdc, -24 to 5Vdc or 110AC to 5Vdc External Power Supply		
Consumption	≤5W		
Dimensions	Plug-in Card/ Stand Alone Module: 7in. x 4in. x 1in. (177.8mm x 101.6mm x 25.4mm)		
Operating Temperature	-4°F to +140°F (-20°C to +60°C)		
Humidity	95% non-condensing		

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**.

To make a warranty claim, or schedule repair or replacement of your RLH product, please 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) 457-5740

Contact Information

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