



Voice & Data Services Multiplexed Over Fiber Optics

The iMux is a powerful fiber optic modular multiplexer capable of providing up to 16 channels of T1, RS232, 4 wire data / 600 Ohm audio and analog phone FXO/FXS services, plus four built-in Gigabit Ethernet ports, over a single fiber.

Each of these services are supplied by our communication modules with each module transporting up to 4 channels of the specified services and may be installed in any combination. Spares or add-on modules may be ordered separately and can be installed in the field.

Gigabit SFPs are used for the back-haul fiber transport of the communication services. Each iMux will take up to 2 SFPs for redundancy. The SFPs are hot swappable and automatically fail over in case of an interruption in the primary fiber path.

The iMux may be managed through SNMP, web interface, craft port, or menu keys on the front panel. It also has an external alarm port for alarm monitoring, as well as 4 programmable alarm contacts. The system provides local/remote loopback functions that are ideal for network testing and maintenance.

The iMux takes up 1RU and comes complete with EIA 19" and 23" rack ears, or it may be used on a desktop or shelf.



iMux with dual optics modules

Standard Features

Multiplexes up to 16 voice and data channels, plus Gigabit Ethernet over a single fiber

Up to 4 modules (each with 4 channels) may be used in any combination to mix and match service

Convenient front LED status indicators

T1, RS232, POTS, and 4 Wire Data service modules

4 built-in Gigabit Ethernet ports

Aggregated Ethernet throughput up to 800 Mbps

Supports VLAN/QOS and port rate control

Optical module auto laser shutdown (ALS), hot swappable 1+1 protection

Ethernet Ports can be configured to be isolated channels or shared

Supports SNMP, HTTP/FTP/TFTP remote software upgradeable

Supports HTTP management to configure and monitor local and remote devices through TCP/IP network

The POTS modules support analog phone extensions as well as ring down

Redundant 48VDC or AC/DC powering options



iMux back panel showing power, alarm, and 4 modules (16 ports total) installed. T1 and analog POTS modules shown.

DATA SHEET**Key Specifications**

SFP Ports:	2
Compatibility:	1000 Mbps speed modules
Alarm Contacts:	4 relay contacts (DB-9 connector)
External Alarm:	DB-9 connector
Compliance Standard:	ITUG.703
Gigabit Ethernet:	IEEE 802.3/802.3u/802.3ab
Modes:	10/100/1000 Mbps, manual or auto negotiation of speed and duplex settings, auto MDI/MDIX
MAC Table:	1024-entry MAC address mapping
Supported Functions:	VLAN/QOS and Port Rate Control
Ethernet Ports:	4 RJ-45 ports
Power Requirements:	90~240 VAC (47Hz~63Hz) and 48VDC (36~75V)
Power Consumption:	20W max, (w/ all ports in service)
Operating Temperature:	0°C to +50°C (32°F to +122°F)
Dimensions:	17.3" (W) x 11.2" (D) x 1.75" (H), (440mm x 285mm x 46mm)
Included:	19"/23" rack ears, serial cable, installation guide, power cord, module and port pre-configuration

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Service Port Module Specifications



Analog POTS module shown

T1 Interface Module

Service Capacity:	4 channels of T1
Bit Rate:	1.544Mbps \pm 32ppm
Line Code:	B8ZS/AMI
Frame Format:	SF, ESF, Unframed
Impedance:	100 Ω balanced
Electrical Interface:	Compliant with ITU-T G.703
Jitter Tolerance:	Compliant with ITU-T G.824
Jitter Transfer:	Compliant with ITU-T G.743
Connector:	RJ-45

DATA SHEET

Service Port Module Specifications (cont'd)

RS-232 Interface Module

Service Capacity:	4 channels of RS-232
Bit Rate:	Up to 57,600 bps TXD/RXD 0.768 Mbit/s DTR/DSR 64 Kbit/s RTS/CTS 64 Kbit/s DCD/RI 32 Kbit/s
Supported Loopback:	Local and Remote

Analog Phone (POTS) Interface Module

FXO Module:	4 Channels of POTS
FXS Module:	4 Channels of POTS
Connector:	RJ-11 x 4
Phone Functions:	Supports caller ID

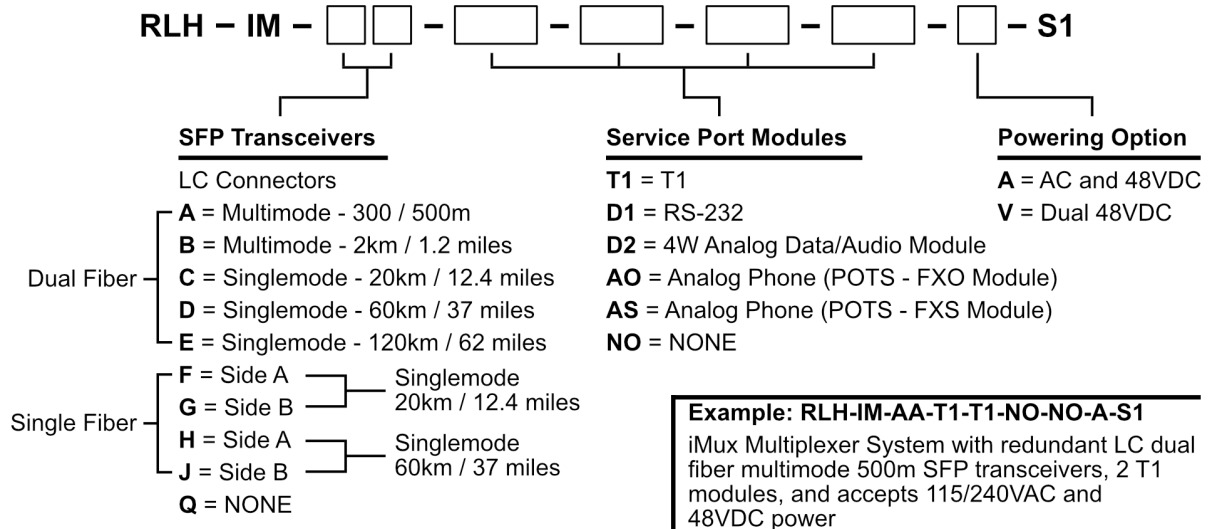
4 Wire Analog Data (600 Ohm Audio) Module

Service Capacity:	4 channels of 4 wire analog data (600 Ohm Audio)
Connector:	RJ-11 x 4
Bandwidth:	300Hz ~ 3.4KHz
Impedance:	600 Ohm
Longitudinal Conversion Loss:	>60dB
Return Loss:	>30dB
Idle Channel Noise:	75dB
CMRR:	>60dB

DATA SHEET

Ordering Information

iMux SFP Multiplexer - Modular Ordering Matrix



- ◆ Use the Modular Ordering Matrix to have the systems preinstalled before shipping for quick and easy deployment
- ◆ 2 multiplexers are required for a complete system
- ◆ Each Service Port Module has 4 channels
- ◆ Bi-directional, single-fiber models require an A side SFP and a B side SFP or a complete system
- ◆ Please contact an RLH sales representative for pricing/delivery information

iMux Base System

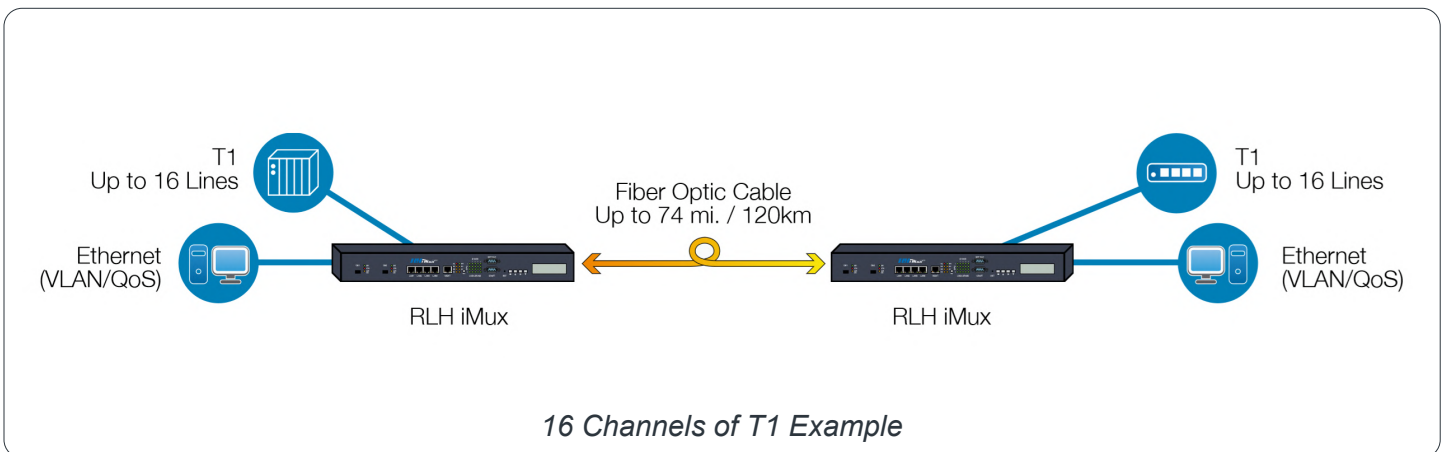
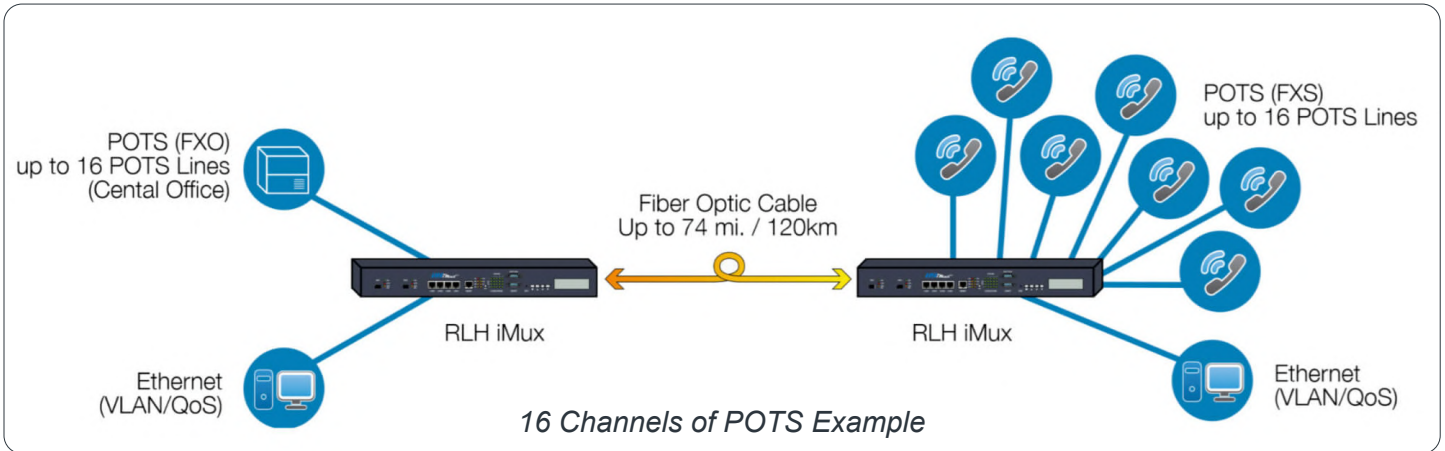
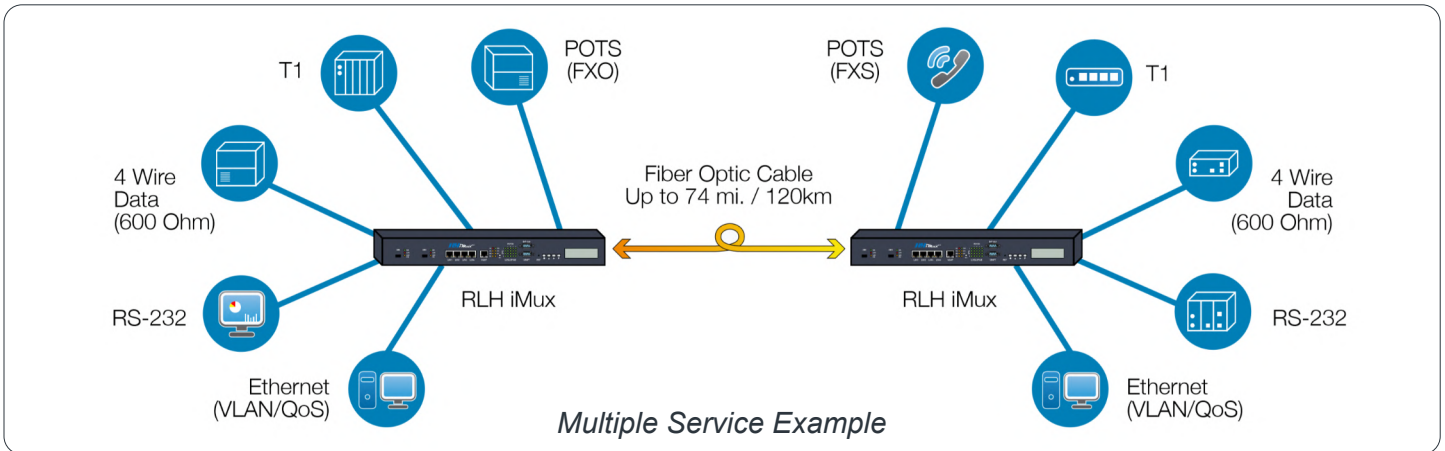
Short Description	Part Number
iMux Gigabit Multiplexer System, Redundant 48VDC Powering, 4 Service Module Capacity, 1RU	RLH-IMUX-V-S1
iMux Gigabit Multiplexer System, AC & 48VDC Powering, 4 Service Module Capacity, 1RU	RLH-IMUX-A-S1

Service Port Modules - 4 Channels

Short Description	Part Number
iMux 4 Channel T1 Service Module	RLH-MM-T1
iMux 4 Channel RS-232 Service Module	RLH-MM-D1
iMux 4 Channel POTS FXO Service Module	RLH-MM-AO
iMux 4 Channel POTS FXS Service Module	RLH-MM-AS
iMux 4 Channel 4 Wire Analog Data Service Module	RLH-MM-D2

- Only iMux Base Systems ordered with the ordering matrix are pre-installed and pre-configured
- 2 multiplexers are required for a complete system

Applications





The leader in
rugged, fiber optic
technology

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