

iMux SFP

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 |

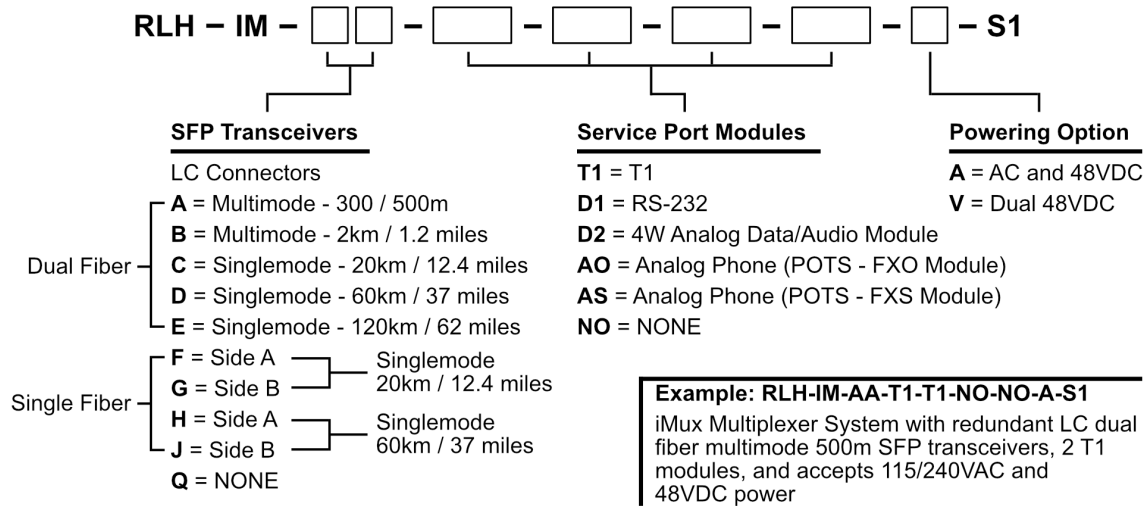
4 Wire Analog Data (600 Ohm Audio) Module

| | |
|--------------------------------------|--|
| 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 |

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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

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

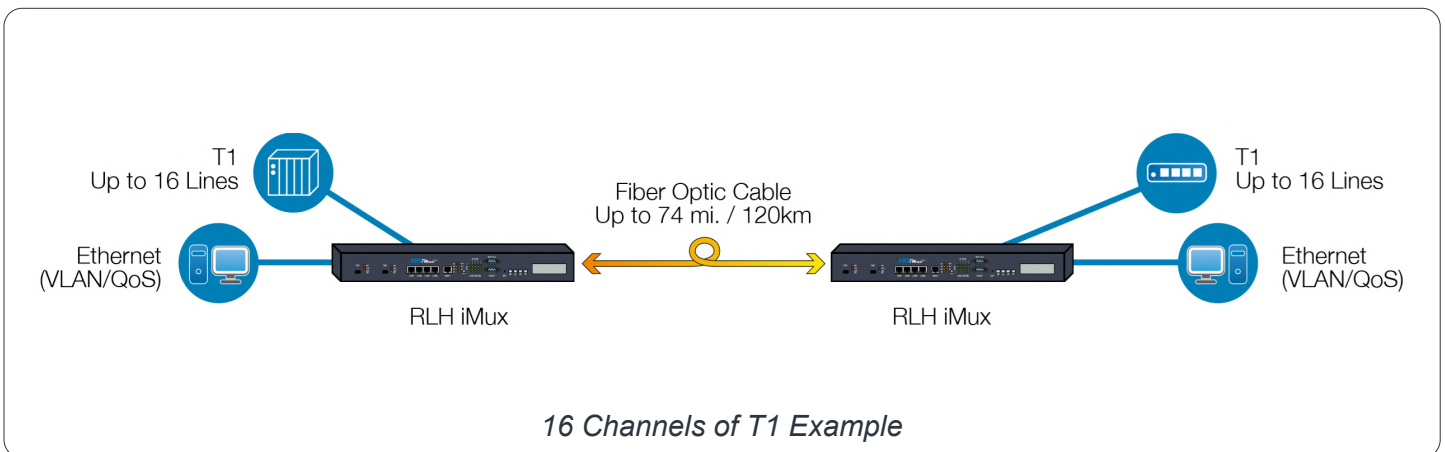
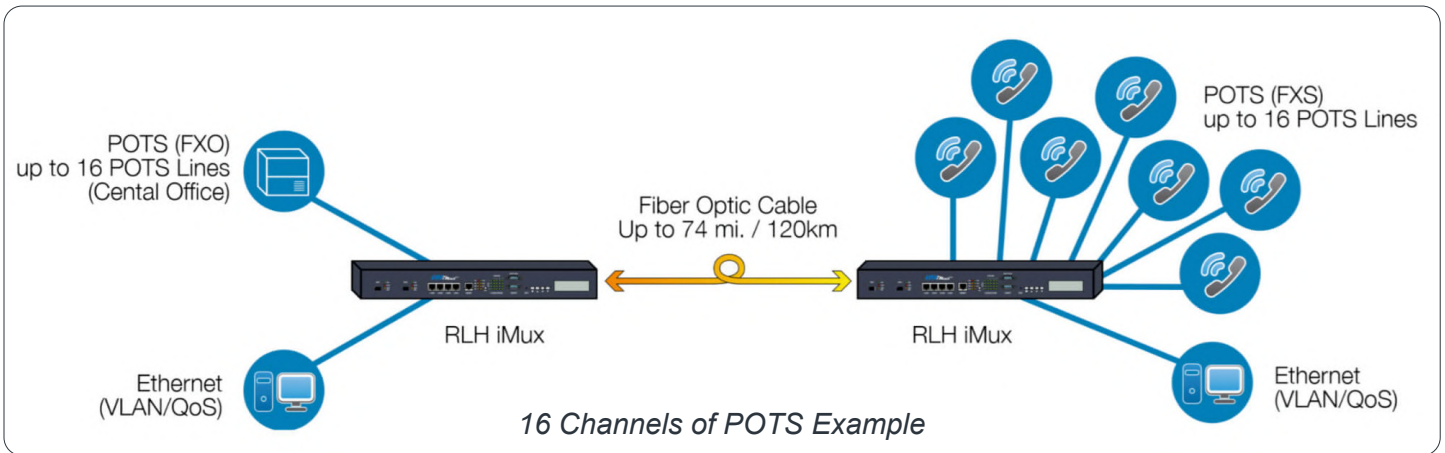
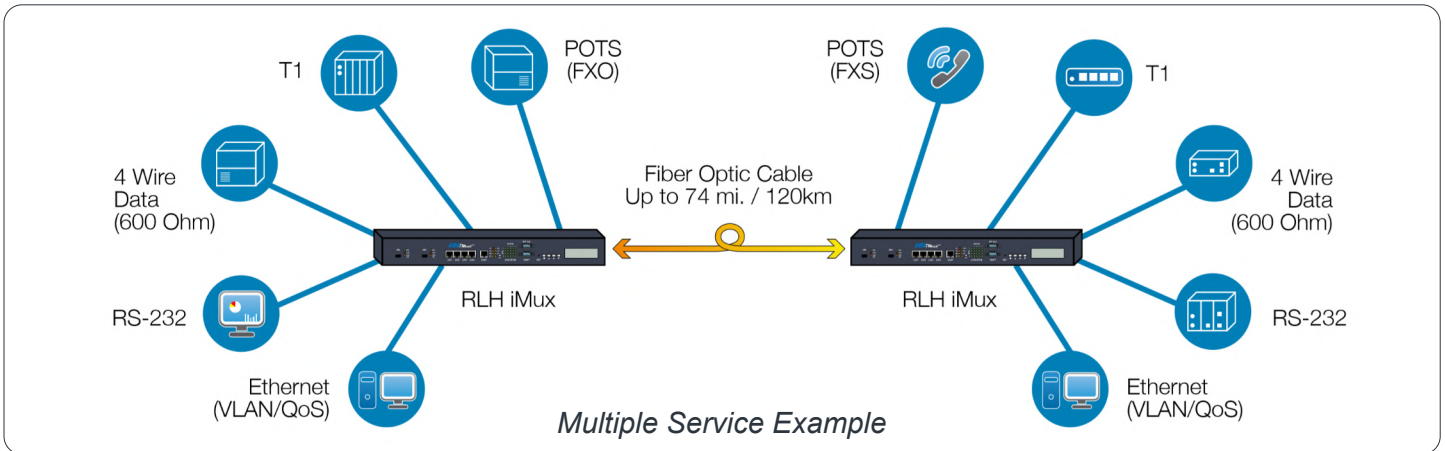
| Short Description | Part Number |
|--|-------------|
| iMux 4 Channel T1 Service Module | RLH-MM-T1 |
| iMux 4 Channel RS-232 Service Module | RLH-MM-D1 |
| iMux 4 Channel POTS FXO Service Module | RLH-MM-AO |
| iMux 4 Channel POTS FXS Service Module | RLH-MM-AS |
| iMux 4 Channel 4 Wire Analog Data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

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Applications



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| By Mail: | Att: Sales RLH Industries, Inc. 936 N. Main St. Orange, CA 92867 |
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