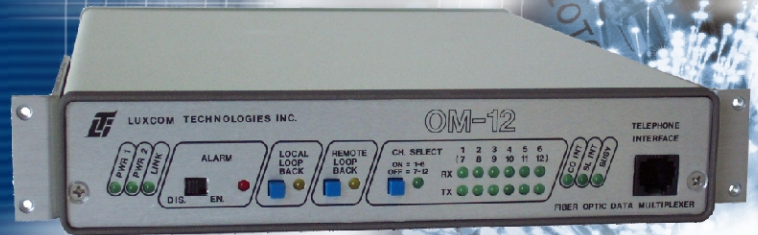


OM12

Fiber Optic Mini Multiplexer

Applications

- Multi-channel Data
- Multi-channel Voice
- Secure Data extender
- Military radio extender



Description

This rugged, environmentally hardened multiplexer allows you to send multiple voice and data streams over 14 internal channels. The comprehensive selection of interfaces allows you to design a multiplexer which meets your particular requirements.

Features:

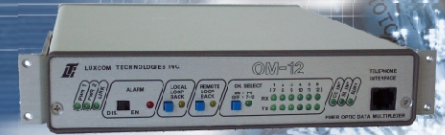
- Data rate up to 64 Kbps per channel
- Wide selection of interfaces
- Up to 8 telephone lines
- Operates over a large temperature range
- Transmits over long distances
- Local and remote loopback
- Single telephone or order-wire option
- Redundant power supplies inputs
- Optical Link/Power Failure alarm
- Extensive performance indicators
- Singlemode and multimode fiber versions
- Low cost and compact

Interface Types

- Relay Control -1 FSK + 3 relay contact + 3 relay driver + 1 RS-232
- RS-422 6 sync. or 12 async. Channels
- RS-232 5 sync. or 10 async. Channels
- Telephone 1 channel CO interface
- Telephone 1 channel SL interface
- Telephone 1 channel Order-wire interface
- Dual 2 Wire /4 wire analog + 2 bidirectional dry contacts + 5 RS-232
- Telephone 4 channel CO interface
- Telephone 4 channel SL interface
- Telephone 7 channel expansion chassis
- 28 bi-directional dry contacts
- Other interfaces available on request

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Specifications

Optical

Light source	M version	850nm LED
	MM version	1300nm SLED
	SM version	1300nm ELED
Optical output	M or MM version 62./125 fiber	> -18 dBm
	M or MM version 9/125 fiber	> -37 dBm
	SM version 9/125 fiber	> -16 dBm
Photo detector	M version	PIN Si
	MM or SM version	InGaAs
Optical sensitivity (10-9BER)	M version	>-41 dBm
	MM or SM version	>-43 dBm
Optical connectors	ST

Typical operating distance

M version 62/125 (3 dB/km)	0 to 5 km
M version 9/125 (2 dB/km).....	0 to 2 km
MM version 62/125 (0.7dB/km).....	0 to 30 km
MM version 9/125 (0.4dB/km).....	0 to 12 km
SM version 9/125 (0.4dB/km)	0 to 60 km

Electrical

Number of Independent Data Channels	14 maximum
Data I/O connector	see <i>Interfaces</i>
Power Source (supplied)1	2V DC power cube
Supply voltage range	12 to 16V DC
Power consumption	varies with option cards

General

Operating Temperature	-40°C to +74°C
Humidity (RH)	10% to 95% (non-condensing)
Dimensions (W*H*D)	18 cm * 4 cm * 25 cm

Single Telephone Line Option Cards

The following three interfaces fit in the front of the OM-12, and can be combined with any of the rear main option cards.

Subscriber Loop Interface - (OM12-1CO)

This module interfaces to the telephone line coming from the PBX or Central Office. One of these modules needs to be installed into the OM-12 which is on the telephone line end of the link.

Central Office Interface - (OM12-1SLI)

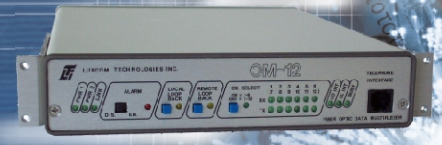
This module interfaces to the telephone set. One of these modules needs to be installed into the Om12 which is on the telephone set end of the link.

Engineering Order Wire - (OM12-EOW)

This is strictly a voice link with telephone sets on both ends of the link. The same module is installed in both

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Main Option Cards

Four Line Central Office Interface - (OM12-4CO)

This module interfaces to four telephone lines coming from the PBX or Central Office. One of these modules needs to be installed into the OM12 which is to be on the telephone line end of the link. For a fifth telephone line, the front option cards can be installed.

Four Line Subscriber Loop Interface - (OM12-4SL)

This module interfaces to four telephone sets. One of these modules needs to be installed into the OM12 which is to be on the telephone set end of the link. For a fifth telephone line, the front option cards can be installed.

Seven Telephone CO Lines - (OM12E-CO)

This expansion multiplexer (the same physical size as the OM12) connects to the main OM12 via an OM12-12E2 interface card. An OM12E-CO multiplexer gives seven telephone Central Office connections. For a eighth telephone line, the front option cards can be installed.

Seven Telephone SL Lines - (OM12E-SL)

This expansion multiplexer (the same physical size as the OM12) connects to the main OM12 via an OM12-12E2 interface card. An OM12E-SL multiplexer gives seven telephone Subscriber Loop connections. For a eighth telephone line, the front option cards can be installed.

RS-422 Interface - (OM12-6-422)

This option card plugs into the rear slot of the OM12 and provides two bi-directional RS-422 channels per RJ-45 connector. There are six connectors, giving a total of 12 bi-directional data ports. Each port can carry signals from 0 to 64KHz. If more than +/- 5% jitter is acceptable (most point to point applications), speeds up to 160 Kbaud can be achieved .

RS-232 Interface - (OM12-12E2)

The option card is plugged into the rear option slot of the OM12. The card provides five bi-directional asynchronous RS-232 data ports with control lines or 10 without control lines. Each port can carry signals from 0 to 64KHz. The card also provides an expansion port for an OM12E (7 telephone lines) if desired.

Analog and Digital Interface - (OM12-2W4W)

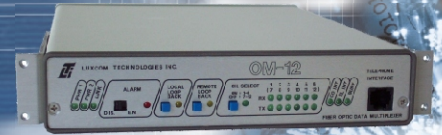
This option card plugs into the rear option slot of the OM12. The card provides two bi-directional 2 or 4 wire, 600 ohm audio channels, two bi-directional contact closure channels, and five bi-directional RS-232 channels. The card is ideally suited to implementing radio remote signaling where Plain Voice and Push to Talk functions are required.

Contact Closure Interface - (OM12-RLY2)

This option card plugs into the rear option slot of the OM12. It provides 28 inputs for sensing contact closures and also provides 28 isolated dry contact outputs. Jumpers allow the user to select either 28 inputs or 28 outputs, or any combination of inputs and outputs adding up to 28.

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Modem Mounting

MP4

The mounting panel provides rack mounting of two OM12 multiplexers. The panel is 1RU (1.75") high, 19" wide. It comes complete with all mounting hardware with the exception of the 10-32 screws for attaching the panel to the rack.



Ordering Information

A fiber optic link consists of two ends, so two identical OM12 main multiplexers will be required. The interface cards may or may not be the same. When ordering, specify the main multiplexer, then list the interface cards separately. All interfaces will be installed in the main multiplexer when they are shipped from the factory.

Part Numbers

OM12-XX

↑	M	850nm multi/single-mode optics
→	MM	1300nm multi/single-mode optics
	SM	1300nm single mode optics (extended distance)

Note: This main chassis comes with one power cube

Accessories

LTIPS-12-1-U

Universal power cube (12V DC 1A)

MP4

Mounting panel for two OM12s