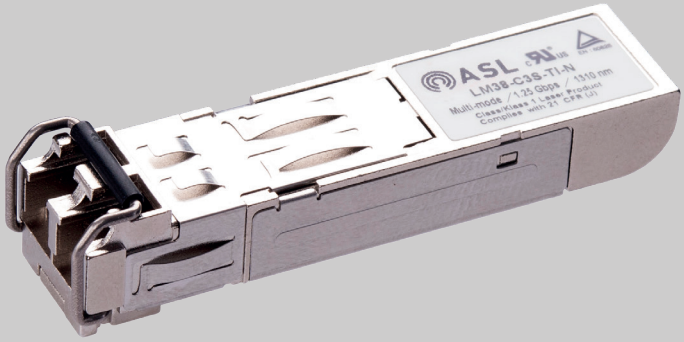
SFP–MM1GL – FIBER OPTIC INTERFACE



- MULTIMODE FIBER SFP
- EN 54 APPROVED
- ADDS FIBER-OPTIC NETWORKING TO ASL PRODUCTS
- LIKE-TO-LIKE OPTICAL BUDGET 11.5dB
- 2KM REACH
- SUPPORTS THIN, LIGHTWEIGHT MULTIMODE OPTICAL CABLE

OVERVIEW

The SFP-MM1GL is a multimode fiber-optic adapter for long-distance, isolated, network connection on optical cable. Used in conjunction with the SFP slots in ASL products, it allows the rapid creation of multimode fiber networks. A number of different SFPs are available from ASL to handle single-mode, multimode and gigabit electrical connection.

Networking can carry many independent channels of audio over a single low-cost, link. Electrical connections are however limited to around 100m link distance. Fiber connections can travel much further—up to 2km for multimode—on a thinner, lighter cable. It is more robust, immune from electromagnetic interference, and carried on a cable which is more resistant to damage. Fiber links are also inherently electrically isolated.

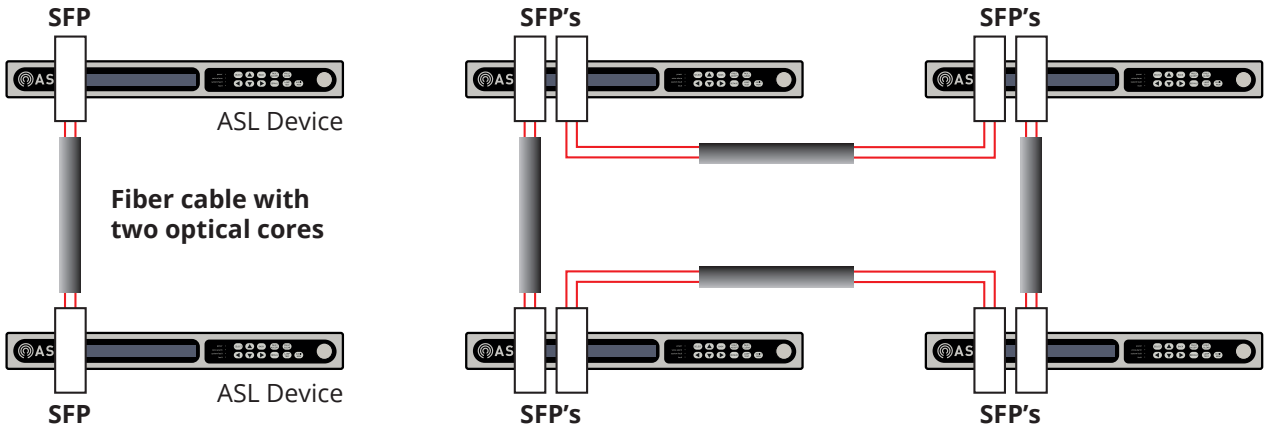
APPLICATION & PERFORMANCE

The SFP-MM1GL is the SFP choice for multi-mode use, typically where existing optical cabling dictates the requirement for multimode compatibility. It provides long-distance, high-speed connection at up to 2km. The unit is bidirectional separate receiver and transmitter, requiring two fibers for a complete duplex link. The connectors are of the dual LC type which have a simple latch style locking arrangement for fast, secure reconnection.

There are two common kinds of multimode cable which are suitable for the SFP-MM1GL, 50/125µm and 62.5/125µm. A link between two SFP-MM1GL units with one piece of straight 50µm multimode fiber, with an attenuation of 0.8dB per kilometre, could in theory be over 10km long. Practical circuits, which include intermediate connectors and fused joins, up to the unit's 2km total link length are therefore easily possible.

Optical networking is superior to electrical connections because it is not vulnerable to interference, allows larger systems with its much greater reach, provides inherent electrical isolation and is connected with cables that are thinner and lighter.

APPLICATIONS



SPECIFICATIONS

As part of any fiber-optic system design, an optical budget should be calculated. Each length of cable, plug/socket junction, splice (join) and cable bend attenuates the signal. The total loss of any series of optical connections should be less than the optical budget for the devices being used. The optical budget is derived from the worst case (minimum) transmitter power level and the worst case (maximum) required receive level. For the SFP-MM1GL these are –9.0dBm and –19dBm. Therefore when two SFP-SM1G are used with one at each end of a fiber cable, then their combined optical budget is 10.0dB.

Overall Description
Pluggable Fiber Optic Transceiver Module for Single Mode Fiber

Physical
Form Factor.....SFP
Temperature Range.....-40°C to +85°C

Electrical
Network Type.....1.25Gb/s 1000Base-LX Ethernet

Inputs
Input Sensitivity (Minimum Power) .....-19dBm

Outputs
Wavelength 1310nm
Maximum Output Power .....-1.0dBm
Minimum Output Power .....-9.0dBm
Suitable Fiber .....50/125µm or 62.5/125µm

Connectors
Connector ..... Duplex LC type

Comprising one optical transmitter and one optical receiver mounted side-by-side.

CE

This equipment is designed and manufactured to conform to the following EC standards:
EMC: EN55103-1/E1, EN55103-2/E5, EN50121-4, ENV50204
Safety: EN60065

Manufacturer

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