

100MB/S ETHERNET FIBRE-OPTIC-LINK

PPM's **ViaLite** 100Mb/s Ethernet Optical Transceiver provides a high reliability solution for implementing an Ethernet link over optical fibre.



The use of optical fibre overcomes problems due to path loss and electro-magnetic interference etc. It has a number of inherent advantages over conventional coaxial alternatives:

- Low loss - enabling very long path lengths
- Lightweight, highly flexible, small diameter cable.
- Immunity to electrical interference - the signal is not corrupted by radiated interference.
- Non-conductive - provides electrical isolation.

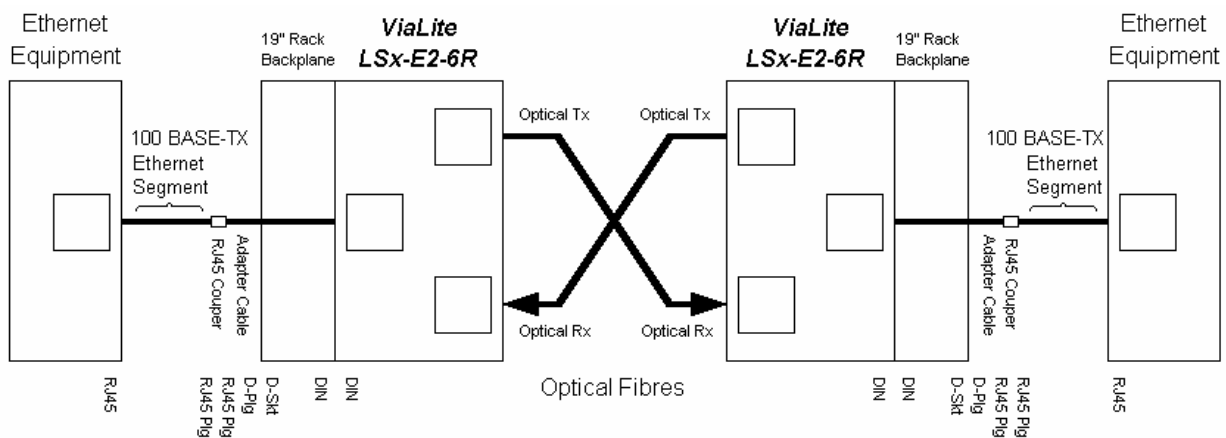
The following diagram shows a typical application.

PPM's **ViaLite** product offers particular advantages:

- Compact plug-in module – fit up to 8 in 19" rack case or use with Converter Sleeve for stand-alone operation
- Front panel LEDs convey essential diagnostic and network status information at a glance
- Long haul operation to >10km

Complementary PPM ViaLite Products

- RF Signal modules for RF GPS, L Band, satellite inter-facility etc.
- 19" Rack Case
- Dual redundant power supplies for maximum availability
- Alarm concentrator module
- RS422 Data Transceiver module



ViaLite 100Mb/s Ethernet Fibre-Optic-Link

Data Format

Data Rate	100 Mb/s, Half-Duplex mode
Network Standards	Fast Ethernet IEEE 802.3u (100BASE-TX, 100BASE-FX)

Module Format

Module Function	100Mb/s Optical Ethernet Transceiver
Front Panel LED Indicators	“Power” “Copper RX/ACT ” “Copper LINK ” “Fibre RX/ACT ” “Fibre LINK ”
Plug-in Module Electrical Signal/Power Connector	User accessible 15-way D-type Female via 19” Rack Shelf backplane
Current Consumption	<5W

Operating Conditions

Operating Temperature	0°C to +50°C
Storage Temperature	-20°C to +60°C
Ambient Relative Humidity	10% to 95% (Non Condensing)
Optical	>60dB return loss. Suhner FCPC-Z/M-A601 narrow keywidth connector. Use with other types may compromise system performance.

Optical Characteristics

Output Power	Class 1 IEC825-1 Eye safe
Wavelength	1310+/-20nm
Fibre	Singlemode 9/125, Corning SMF28 or equivalent
Optical Connector	FC/APC Narrow key, >60dB return loss, Suhner FCPC-Z/M-A601
Optical Path Length	0m to 10km for 1300nm, single-mode fibre
Optical Power Budget	10dB (Typical fibre losses: Fibre: 0.4dB/km; Connectors: 0.5dB max.)

Physical Format

Housing Options	Rack Plug-in Module – suitable for Rack Case or Plug-in Converter Sleeve
Supply Voltage Rack Plug-in Module Plug-in Converter Sleeve	+12Vdc from LRK power supply +12Vdc +/-10% from external supply via 2.1mm or D-type connector
Weight Rack plug-in module Plug-in Converter Sleeve	600g 600g + module
Rack Mount Case Suitability	LRK1, LRK2

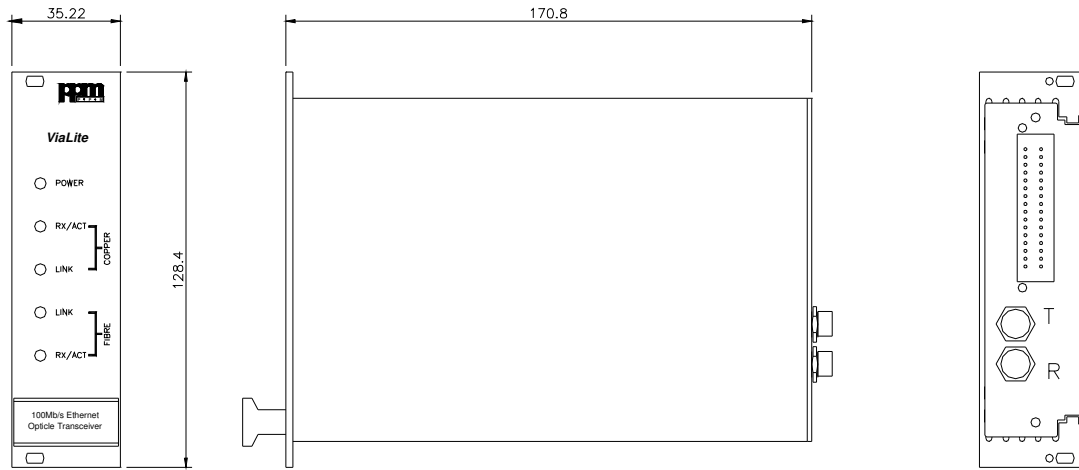


Figure 1: Plug-in Module

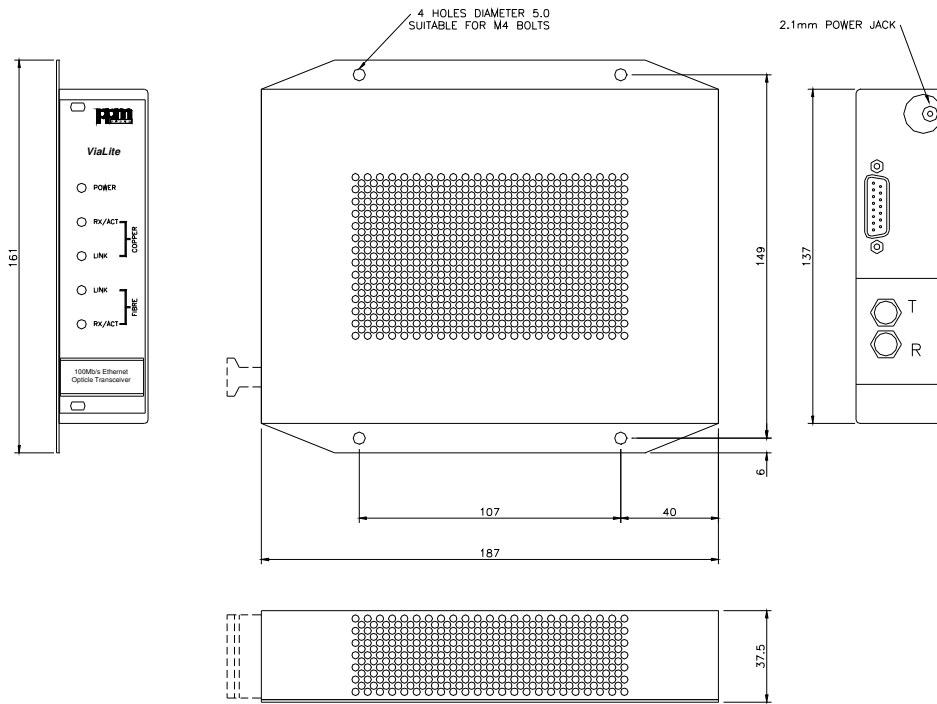


Figure 2: Plug-in Module in Converter Sleeve for standalone operation

Variants

Part Number	Transceiver	100Mb/s Ethernet	Plug-in Module
LSX-E2-6R	•	•	•

19" Rack Case Solutions

Part Number	Description
LRK1	19" Rack Case 3U for desktop or 19" rack installation. Accommodates up to 8 plug-in modules and 2 mains power supplies.
LRK2	19" Rack Case 3U for 19" rack installation. Accommodates up to 8 plug-in modules and 2 mains power supplies.
LPS-M	Main Power Supply plug-in for LRK1 or LRK2.
LPS-R	Reserve Power Supply plug-in for LRK1 or LRK2.
75004	19" Rack Case, 1U for desktop or 19" rack installation, integral power supply, accommodates 3 plug-in modules.

Stand alone Solutions

75003	Converter sleeve. Converts a single plug-in module for standalone operation.
73502	Power Supply, 12Vdc, with 2.1mm connector for Plug-in Converter Sleeve
LPS-CS	Power Supply, flange mounting, 12Vdc, with 15 pin D connector for Plug-in Converter Sleeve

Accessories

Part Number	Description
73632	Cable assembly, 15 way D-Type to RJ45, for connection of Ethernet module to RJ45 equipment
LAC-1	Alarm Concentrator Transceiver Fibre Optic Link module
F6R1/x	FC/APC Patchlead, 2.8mm jacket. Length defined in metres by "x" (1m, 2m, 5m, 10m)

CONTACT US

For further details of this or any other product from PPM, please contact us at:

PPM Ltd, 65 Shrivenham Hundred Business Park, Watchfield, Swindon, Wiltshire, SN6 8TY, UK.

Email: sales@ppm.co.uk, Tel.: +44 (0)1793 784389 Fax: +44 (0)1793 784391

Web: www.vialite.co.uk or www.ppm.co.uk