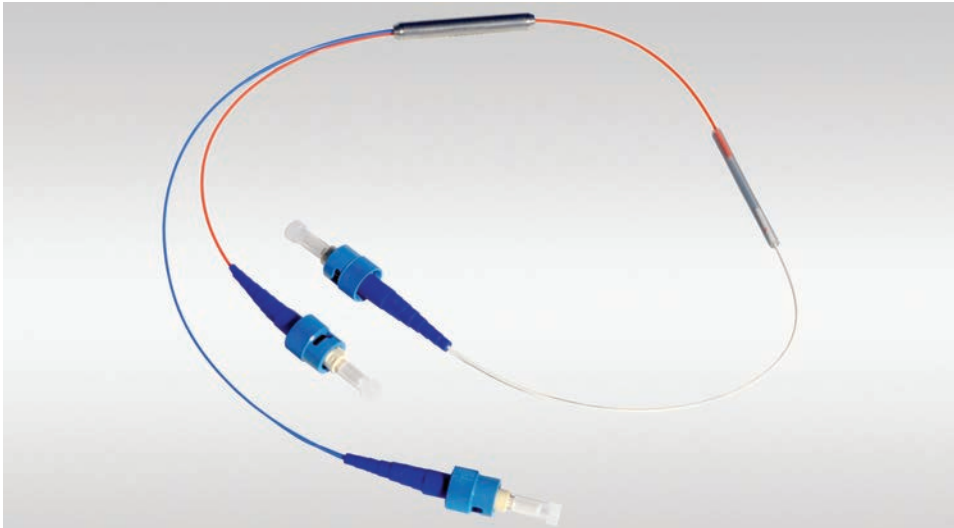


MPS-4500/AC

SM/MM Hybrid Wavelength Division Multiplexer



Designed to enable bi-directional optical communications between two Gigabit Ethernet transceivers

The MPS 4500 series of Singlemode/Multimode Hybrid Wavelength Division Multiplexers (H-WDM) are three port devices designed to enable bi-directional optical communications between two Gigabit Ethernet transceivers that are sharing a single strand of 62.5um multimode optical fiber cable. The 4500 series of multiplexers include both the AC series and the TB series.

The MPS 4500/AC is engineered to provide the Mux/DeMux functions for transceivers that transmit at the 1310 nm wavelength and receive at the 1550 nm wavelength. The AC 1310 nm transmit path integrates an Optical Mode Conditioner that optimizes the optical mode field of the transmit singlemode fiber to the multimode fiber port of the H-WDM. The use of mode field optimization minimizes the Bit Error Rate (BER) of the Gigabit Ethernet data as it is transported over the multimode fiber cable. Refer to Page (2) for device details.

The MPS 4500 has several key features that set it apart from ordinary wavelength division multiplexers that make them ideal for use in legacy multimode data communication systems that need to be upgraded to Gigabit Ethernet speeds. The key features of the MPS 4500 include:

- Compact Package Size
- Low Insertion Loss between Common Port and Input Mux and Output DeMux Ports
- High Isolation between Mux and DeMux Ports
- Integrated Optical Mode Conditioner

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Applications

- Optical Sensors
- High Speed Data Networks
- Telecommunications

Features

- Micro-Optics Based Design
- Epoxy Free Optical Path
- Low Insertion Loss
- High Isolation
- Environmentally Stable

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Specifications

Parameter	Requirement
Part Number:	MPS-4500/AC
Series Number:	TBD
Fiber Type:	sm-mm
Insertion loss (dB)	
P1->P2 @ 1550nm:	0.50 dB
P3->P1 @ 1310nm:	1.00 dB
Isolation (dB)	
P3->P2 @ 1310nm:	> 35 dB
P1->P3 @ 1550nm:	> 55 dB
Return Loss (dB):	> 45 dB
Directivity (dB):	> 55 dB

Package Dimensions

