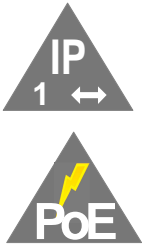


**OSD2167M 10/100/1000Base-T to 1000Base-Sx/Lx  
PoE ETHERNET MEDIA CONVERTER MODULE**

**APPLICATIONS**

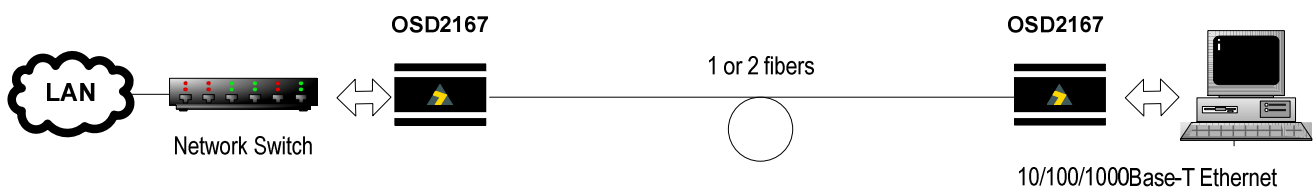
- ▲ Any network utilising a mix of copper and fiber
- ▲ Secure, noise immune extensions of gigabit Ethernet backbone networks
- ▲ Commercial IP communications
- ▲ Networks with PoE devices such as VOIP phones, access controls, etc.



**FEATURES AND BENEFITS**

- ▲ Complies with IEEE802.3i/802.3u/802.3ab 10/100/1000Base-T, IEEE802.3z 1000Base-Sx/Lx standards
- ▲ Supports network traffic of 1000Mbps
- ▲ Has one fixed 10/100/1000BaseT copper port and one fixed 1000BaseSx/Lx optical port
- ▲ Automatic MDIX: no need for crossover cables
- ▲ Complies with the IEEE802.3az Energy-Efficient Ethernet standard
- ▲ Provides up to 15.4W PoE
- ▲ Complies with the IEEE802.3af standards
- ▲ Supports jumbo frames of up to 10KB
- ▲ Multimode or singlemode fiber operation
- ▲ Available for operation over 2 fibers, 1-fiber operation is optional
- ▲ Powered by a 46 to 56V DC power supply
- ▲ Operates over the temperature range of -10 to +55°C

**TYPICAL SYSTEM DESIGN**



**ORDERING INFORMATION**

- OSD2167M/Sx 10/100/1000BaseT to 1000BaseSx Media Converter Module with IEEE802.3af PoE for multimode fiber
- OSD2167M/Lx 10/100/1000BaseT to 1000BaseLx Media Converter Module with IEEE802.3af PoE for singlemode fiber



## SPECIFICATIONS

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Electrical Data Interface	IEEE802.3i/802.3u/802.3ab, 10/100/1000Base-T Ethernet
Electrical Data Rate	10, 100, 1000Mbps with energy detect, auto negotiate, auto MDIX
Optical Data Interface	IEEE802.3z 1000Base-Sx/Lx
Optical Data Rate	1000Mbps
Copper Operating Mode	Half or full duplex for 10/100 Full duplex for 1000 Pause frames for 1000Mbps flow control
Copper Data Connector	RJ45
Power Over Ethernet	Up to 15.4W per IEEE802.3af
PoE Pins Assignment	4/5 (+) and 7/8 (-)
Optical Connectors	SC
Large Frame Support	10KB
Transmitter Wavelength	850nm (OSD2167M/Sx) 1310nm (OSD2167M/Lx)
Transmit Optical Power	-9 to -3dBm into 50/125um multimode fiber @850nm(OM2, OM3, OM4)(OSD2167M/Sx) -6 to -0dBm into 62.5/125um multimode fiber @850nm (OM1) (OSD2167M/Sx) -9 to -3dBm into 9/125um singlemode fiber @1310nm (OSD2167M/Lx)
Receiver Sensitivity	<-17dBm @850nm (OSD2167M/Sx) <-22dBm @1310nm (OSD2167M/Lx)
Receiver Saturation	>0dBm
Multimode Fiber Link Budget	>8dB: > 550m on OM2 or OM3 multimode limited by fiber bandwidth
Singlemode Fiber Link Budget	>13dB > 30km

### PHYSICAL

Operating Temperature Range	-10°C to +55°C
Relative Humidity	0 to 95% non-condensing
Power Requirements	-46 to -56VDC @ 4W plus up to an extra 18W for PoE operation (attached powered device dependent)
Power Connector	Male jack suitable for standard 2.1mm/5.5mm power plugs such as Switchcraft S761K or equivalent
Indicators	TP activity TP link speed Fiber link OK Fiber link activity Power
Dimensions of Module (mm)	60W x 94D x 26H
Weight of Module (kg)	0.3
Mean Time Between Failures	>410,000 hours at 25°C, Ground Benign Environment per MIL-HDBK-217F