

Introduction

The OSD2251E is a 4-port lite managed switch with two Gigabit RJ45 and two Gigabit SFP uplink ports which can be used as standard ports or as a redundant fiber ring using OSD's proprietary ring protocol. Along with higher level features including SNMP, VLAN and IGMP snooping the OSD2251E is suitable for use in critical networks. A rugged IP30 casing, fan-less design and wide operating temperature range from -40 to +75°C make it suitable for use in a wide range of harsh industrial environments.



Features and Benefits

- ▲ Complies with IEEE802.3i/802.3u/802.3ab 10/100/1000Base-T, IEEE802.3u 100Base-Fx, IEEE802.3z 1000Base-Lx/Sx standards
- ▲ Auto-Negotiation for half or full duplex operation
- ▲ Has a total of four ports: two fixed copper ports for 10/100/1000Base-T and two SFP ports for the fibre ring or non-ring (100Base-Fx or 1000Base-X)
- ▲ Powered by non-critical 10 to 36VDC or 24VAC supplies with dual power supply inputs
- ▲ A network diameter of hundreds of kilometers is practical
- ▲ Integrates with third party NMS system via industry standard SNMP v1, v2c, v3
- ▲ Ring reconfiguration in the case of cable or switch failures takes less than two milliseconds per hop
- ▲ Operates over the temperature range of -20 to +75°C
- ▲ MDI/MDIX Crossover: no need for crossover cables
- ▲ Supports VLAN and IGMP snooping
- ▲ Can be used with either singlemode or multimode fiber over a variety of link budgets
- ▲ Compatible with the OSD2244 and OSD225* series Gigabit Ethernet switches
- ▲ Available for operation over 1 or 2 fibers
- ▲ SFP modules sold separately
- ▲ Supports 10KB jumbo frames
- ▲ DIN rail or wall mounting
- ▲ Available for operation in ring or point-to-point configuration

Typical System Design



Specifications

Hardware

Ethernet	2 x 10/100/1000Base-T RJ45, IEEE802.3i/802.3u/802.3ab
Jumbo Frame Support	10KB
SFP	2 x Gigabit SFP ports (100Mbps or 1000Mbps user selectable)
Optical Data Interface	IEEE802.3z 1000Base-Lx/Sx, 100Base-Fx
Enclosure Protection Class	IP30
Installation	DIN rail, wall mount or desktop
Alarm (ring version only)	Ring to Bus, High Temperature
Alarm Interface	Opto isolated MOSFET rated at 100mA @ 46V maximum
Alarm Connector	4 way 3.5mm terminal block
DIP Switch	8 way DIP switch for configuration
Power Requirements	+10V to +36V DC or 22 to 28VAC @ 8VA
Power Connector	4 way 5.08mm terminal block
Indicators	2 x Copper Link on each RJ45 2 x Copper Activity on each RJ45 2 x SFP Speed/Activity/Link on each SFP 1 x Initialise/Ring/Bus 1 x Power
Environmental	-20 to +75°C
Relative Humidity	0 to 95% non-condensing
Dimensions	43W x 91D x 110H mm
Weight	480g

Management

Interfaces	Command Line Interface (CLI mini USB) Web browser based Graphical User Interface (GUI) (Chrome or Edge) SNMP v1, v2c, v3
Port Configuration	Port enable/disable, Auto negotiation Flow control enable/disable
Port Status	Speed, duplex mode, link status, auto negotiation status
VLAN	802.1Q VLAN
Multicast Protocol	RFC 2236 IGMP snooping v1, v2, v3
Ethernet Redundancy	OSD-Ring
SNMP MIBs	RFC 1213 MIB Private MIB Framework Contact OSD for full list of available MIB's

Warranty

Warranty Period	5 years
MTBF (Ground Benign Environment, 30°C)	724,000 hours

Ordering Information

Part No.	Description
OSD2251E	Lite managed 2 x 10/100/1000BaseT + 2 x SFP Gigabit Ethernet Switch
SFP	See OSD SFP datasheets #102100XX and #10210000X