

Introduction

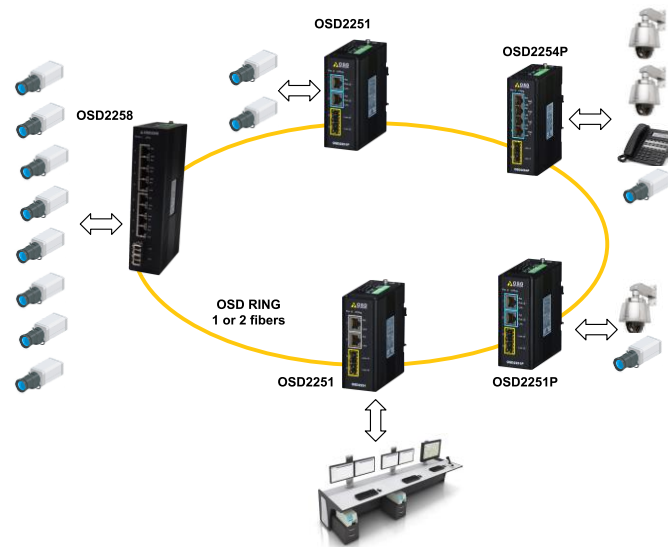
The OSD2251E is a 4-port lite managed switch with two Gigabit RJ45 and two Gigabit SFP uplink ports which can be used as standard ports or as a redundant fiber ring using OSD's proprietary ring protocol. Along with higher level features including SNMP, VLAN and IGMP snooping the OSD2251E is suitable 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
- ▲ Operates over the temperature range of -20 to +75°C
- ▲ Ring reconfiguration in the case of cable or switch failures takes less than two milliseconds per hop
- ▲ Supports VLAN and IGMP snooping
- ▲ MDI/MDIX Crossover: no need for crossover cables
- ▲ Compatible with the OSD2244 and OSD225* series Gigabit Ethernet switches
- ▲ Can be used with either singlemode or multimode fiber over a variety of link budgets
- ▲ SFP modules sold separately
- ▲ Available for operation over 1 or 2 fibers
- ▲ DIN rail or wall mounting
- ▲ Supports 10KB jumbo frames
- ▲ 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 browser) 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
OSD2251EP	Lite managed 2 x 10/100/1000BaseT + 2 x SFP Gigabit Ethernet Switch with up to 30W PoE on each RJ45 port. (PoE version. See datasheet 1022251P**)
SFP	See OSD SFP datasheets #102100XX and #1021000X