

### Introduction

The OSD2254E is a 6-port lite managed industrial ethernet switch with four 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 SNMPVLAN and IGMP snooping the OSD2254E 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 and IEEE802.3z 1000Base-Lx/Sx standards
- ▲ Has a total of six ports: four fixed copper ports for 10/100/1000Base-T and two SFP ports for the fibre ring or non-ring (100Base-Fx or 1000Base-X)
- ▲ A network diameter of hundreds of kilometers is practical
- ▲ Ring reconfiguration in the case of cable or switch failures takes less than two milliseconds per hop
- ▲ MDI/MDIX Crossover: no need for crossover cables
- ▲ Can be used with either 1 or 2 singlemode or multimode fiber over a variety of link budgets via plug in SFP module (sold separately)
- ▲ Auto-Negotiation for half or full duplex operation
- ▲ Supports 10KB jumbo frames
- ▲ Powered by non-critical 10 to 36VDC or 24VAC supplies with dual power supply inputs
- ▲ Integrates with third party NMS system via industry standard SNMP v1, v2c, v3
- ▲ Supports VLAN and IGMP v1, v2, v3 snooping
- ▲ Port security guaranteed with MAC binding function
- ▲ Operates over the temperature range of -40 to +75°C
- ▲ Web browser GUI included
- ▲ Compatible with all OSD22XX series of redundant ring Gigabit Ethernet switches
- ▲ Available for operation in ring, bus or point-to-point configuration
- ▲ DIN rail or surface mounting

## Typical System Design



## Specifications

### Hardware

Ethernet	4 x 10/100/1000Base-T RJ45, IEEE802.3i/802.3u/802.3ab
Data Rate	10, 100, 1000Mbps with energy detect, auto negotiate, auto MDIX
Jumbo Frame Support	10KB
SFP	2 x Gigabit SFP ports (100Mbps or 1000Mbps user selectable)
Optical Data Interface	IEEE802.3z 1000Base-Lx/Sx, IEEE802.3u 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 36VDC or 22 to 28VAC
Power Connector	4 way 5.08mm terminal block
Indicators	4 x Copper Link on each RJ45 4 x Copper Activity on each RJ45 2 x SFP Speed/Activity/Link on each SFP 1 x Initialise/Ring/Bus 1 x Power/Temperature Alarm
Environmental	-40 to +75°C
Relative Humidity	0 to 95% non-condensing
Dimensions	43W x 91D x 130H mm
Weight	620g

### 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
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)	540,000 hours

## Ordering Information

Part No.	Description
<b>OSD2254E</b>	Lite managed 4 x 10/100/1000BaseT + 2 x SFP Gigabit Ethernet Switch
<b>OSD2254EP</b>	Lite managed industrial 6-port Redundant Ring Gigabit Ethernet Switch with up to 60W PoE on each RJ45 port. See datasheet 1022254P**)
<b>SFP</b>	See OSD SFP datasheets #102100XX and #10210000X