OSD2254EP

Lite Managed 6-port Ethernet Switch with SNMP & VLAN
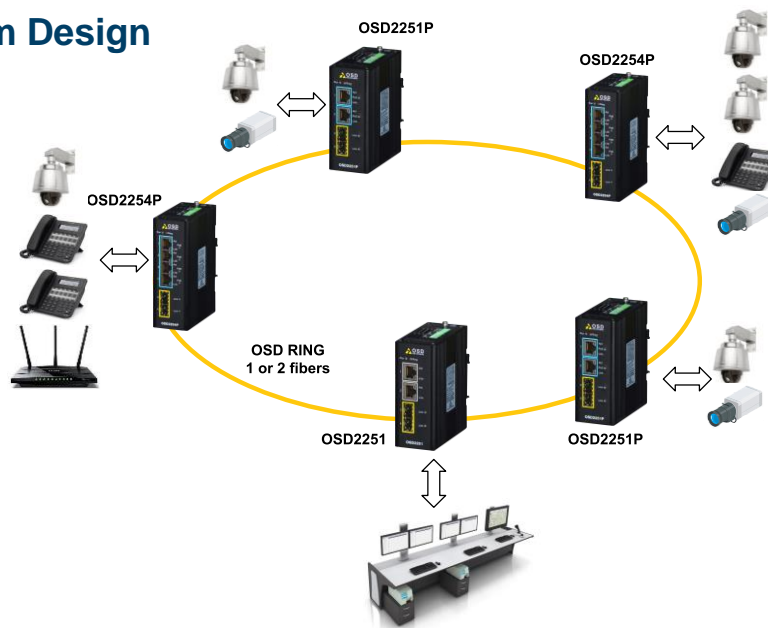### 4 x 10/100/1000BASE-T with PoE++ & 2 x Gigabit SFP

Introduction

The OSD2254EP is a 6-port lite managed industrial ethernet switch with four Gigabit RJ45 ports 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. Each RJ45 can provide up to 60W PoE to power a wide range of devices. Along with higher level features including SNMP, VLAN and IGMP snooping the OSD2254EP is suitable for use in critical networks. A rugged IP30 casing, fan-less design and wide operating temperature range from -40 to +75ºC 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)

▲ Supports IEEE802.3af/at Alternative A and B cable wiring

▲ Complies with IEEE802.3af/at standard including compliant powered device (PD) signature detection and classification

▲ Customisable PoE via DIP switch or GUI providing up to 60W to each RJ45 port supporting both single signature and dual signature PD detection

▲ Auto-Negotiation for half or full duplex operation

▲ Supports 10KB jumbo frames

▲ Powered by one or two non-critical 46 to 57VDC supplies, ie redundant power 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

▲ Remote PoE on/off control and status monitoring

▲ Operates over the temperature range of -40 to +75ºC

▲ 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

Industrial Ethernet Media Converters / Switches

DESIGNED AND MANUFACTURED IN AUSTRALIA

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
PoE (user configurable via GUI)	IEEE802.3af/at, PoE++ 60W via GUI
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	46 to 57VDC @ 5VA maximum (no PoE in use) to 245VA maximum (All 4 ports supplying 60W PoE++ power) >52VDC recommended for PoE+ or ≥55VDC for PoE++ (60W)
Output PoE Vdrop per port	PoE voltage drop per port <0.5V @ 30W, <1V @ 60W
Power Connector	4 way 5.08mm terminal block
Indicators	4 x Copper Link on each RJ45 4 x Copper Activity on each RJ45 4 x PoE Active for each RJ45 2 x SFP Speed/Activity/Link on each SFP 1 x Initialise/Ring/Bus 1 x Power
Environmental	-40 to +75°C
Relative Humidity	0 to 95% non-condensing
Dimensions	43W x 91D x 130H mm
Weight	680g

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
Port Security	MAC address binding
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, 30ºC)	480,000 hours

Ordering Information

Part No.	Description
OSD2254EP	Lite managed industrial 6-port Redundant Ring Gigabit Ethernet Switch with up to 60W PoE on each RJ45 port
OSD2254E	Lite managed industrial 6-port Redundant Ring Gigabit Ethernet Switch (non PoE version. See datasheet 10222540**)
SFP	See OSD SFP datasheets #102100XX and #10210000X