

Lite Managed 6-port Ethernet Switch with 4 x 10/100/1000BASE-T with 802.3bt PoE & 2 x Gigabit SFP

### Introduction

The OSD2284P 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 LAN ports or as a redundant fiber ring using OSD's proprietary ring protocol. Each RJ45 port can provide up to 90W PoE to power a wide range of devices. Along with higher level features including SNMP, VLAN and IGMP snooping the OSD2284P 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.

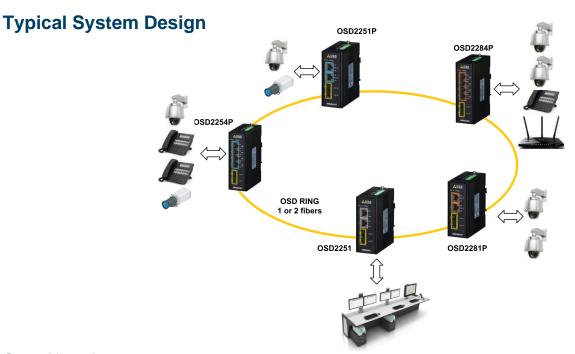


#### **Features and Benefits**

- ▲ Complies with IEEE802.3i/802.3u/802.3ab 10/100/1000Base-T, IEEE802.3u 100Base-Fx, IEEE802.3z 1000Base-Lx/Sx standards
- → 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 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
- ▲ Supports IEEE802.3af/at/bt PoE and PoH
- Provides up to 90W to each RJ45 port with a total power budget of 360W
- ▲ Auto-Negotiation for half or full duplex operation
- ▲ Integrates with third party NMS system via industry standard SNMP v1, v2c, v3

- Powered by non-critical 46 to 57VDC supplies with dual power supply inputs
- Supports 10KB jumbo frames
- Supports VLAN and IGMP v1, v2, v3 snooping
- Port security guaranteed with MAC binding function
- ▲ Remote PoE on/off control and status monitoring
- Redundant ring operation is compatible with all OSD225\* and OSD228\* series Gigabit Ethernet switches
- Operates over the temperature range of -40 to +75°C
- DIN rail or wall mounting
- Available for operation in ring, bus or point-to-point configuration





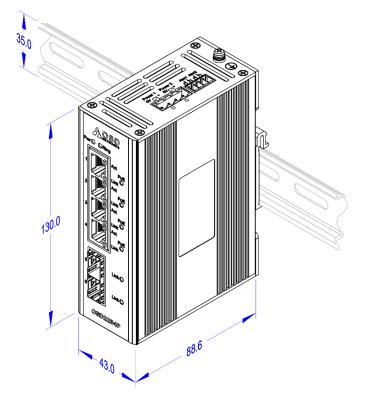
## **Specifications**

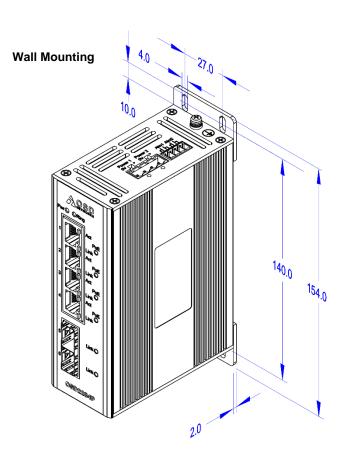
tumbo Frame Support  SFP 2 x Gigabit SFP ports (100Mbps or 1000Mbps user selectable)  Detical Data Interface IEEE802.3z 1000Base-Lx/Sx, IEEE802.3u 100Base-Fx  Detection Class IP30  IP30  DIN rail, wall mount or desktop  Narm (ring version only)  Narm (ring version only)  Narm Connector 4 way 3.5mm terminal block  Be way DIP switch for configuration  Dower Requirements 46 to 57VDC @ 8VA maximum (no PoE in use) to 376VA maximum (All ports supplying 90W PoE power)  (>52VDC recommended for PoE <30W or ≥55VDC for PoE >30W  Power Connector 4 way 5.08mm terminal block  Power Requirements 46 to 57VDC @ 8VA maximum (no PoE in use) to 376VA maximum (All ports supplying 90W PoE power)  (>52VDC recommended for PoE <30W or ≥55VDC for PoE >30W  Poever Connector 4 way 5.08mm terminal block  Power Connector 5 vay 5.08mm terminal block  A × Copper Link on each RJ45  A × Copper Activity on each RJ45  A × PoE Operation for each RJ45  A × PoE Operation for each RJ45  A × SFP Speed/Activity/Link for each SFP  1 x Initialise/Ring/Bus  1 x Power  Environmental 40 to +75°C  Relative Humidity 0 to 95% non-condensing  1000 1000 1000 1000 1000 1000 1000 10	Hardware	
2 x Gigabit SFP ports (100Mbps or 1000Mbps user selectable)  Detical Data Interface  Determine the selectable of the se	Ethernet	4 x 10/100/1000Base-T RJ45, IEEE802.3i/802.3u/802.3ab
Deptical Data Interface  IEEE802.3z 1000Base-Lx/Sx, IEEE802.3u 100Base-Fx  IEEE802.3af/at, IEEE802.3t, HDBase-T (PoH) Up to 90W per port with total power budget of 360W Additional PoE modes available via Web-GUI  IP30  IP30  DIN rail, wall mount or desktop Narm (ring version only) Ring to Bus, High Temperature Opto isolated MOSFET rated at 100mA @ 46V maximum Alarm Connector  4 way 3.5mm terminal block 8 way DIP switch for configuration Power Requirements  46 to 57VDC @ 8VA maximum (no PoE in use) to 376VA maximum (All ports supplying 90W PoE power) (>52VDC recommended for PoE <30W or ≥55VDC for PoE >30W  Power Connector  4 way 5.08mm terminal block  4 x Copper Link on each RJ45 4 x Copper Activity on each RJ45 4 x PoE Operation for each SFP 1 x Initialise/Ring/Bus 1 x Power  Environmental  -40 to +75°C  Relative Humidity 0 to 95% non-condensing 0 time side to the surface of the surface	Jumbo Frame Support	10KB
IEEE802.3af/at, IEEE802.3bt, HDBase-T (PoH) Up to 90W per port with total power budget of 360W Additional PoE modes available via Web-GUI  IP30  DIN rail, wall mount or desktop Ring to Bus, High Temperature Opto isolated MOSFET rated at 100mA @ 46V maximum Alarm (ring version only)  Alarm Interface Opto isolated MOSFET rated at 100mA @ 46V maximum Alarm Connector  4 way 3.5mm terminal block 8 way DIP switch for configuration  Power Requirements  46 to 57VDC @ 8VA maximum (no PoE in use) to 376VA maximum (All ports supplying 90W PoE power) (>52VDC recommended for PoE <30W or ≥55VDC for PoE >30W  Power Connector  4 way 5.08mm terminal block  4 x Copper Link on each RJ45 4 x Copper Activity on each RJ45 4 x PoE Operation for each SFP 1 x Initialise/Ring/Bus 1 x Power  Environmental  -40 to +75°C  Relative Humidity 0 to 95% non-condensing 0 timensions	SFP	2 x Gigabit SFP ports (100Mbps or 1000Mbps user selectable)
Up to 90W per port with total power budget of 360W Additional PoE modes available via Web-GUI  Enclosure Protection Class  IP30  DIN rail, wall mount or desktop  Ring to Bus, High Temperature  Opto isolated MOSFET rated at 100mA @ 46V maximum  Narm (ring version only)  Narm Interface Opto isolated MOSFET rated at 100mA @ 46V maximum  Narm Connector 4 way 3.5mm terminal block  8 way DIP switch for configuration  46 to 57VDC @ 8VA maximum (no PoE in use) to 376VA maximum (All ports supplying 90W PoE power)  (-52VDC recommended for PoE <30W or ≥55VDC for PoE >30W  Dutput PoE Vdrop per port PoE voltage drop per port <0.5V @ 30W, <1V @ 60W  Power Connector 4 way 5.08mm terminal block  A x Copper Link on each RJ45 4 x Copper Activity on each RJ45 4 x PoE Operation for each RJ45 4 x SFP Speed/Activity/Link for each SFP 1 x Initialise/Ring/Bus 1 x Power  -40 to +75°C  Relative Humidity 0 to 95% non-condensing 0 timensions  43W x 91D x 130H mm	Optical Data Interface	IEEE802.3z 1000Base-Lx/Sx, IEEE802.3u 100Base-Fx
DIN rail, wall mount or desktop Ring to Bus, High Temperature Opto isolated MOSFET rated at 100mA @ 46V maximum Alarm Interface Opto isolated MOSFET rated at 100mA @ 46V maximum Alarm Connector 4 way 3.5mm terminal block B way DIP switch for configuration Power Requirements 46 to 57VDC @ 8VA maximum (no PoE in use) to 376VA maximum (All ports supplying 90W PoE power) (>52VDC recommended for PoE <30W or ≥55VDC for PoE >30W Dutput PoE Vdrop per port PoE voltage drop per port <0.5V @ 30W, <1V @ 60W Power Connector 4 way 5.08mm terminal block 4 x Copper Link on each RJ45 4 x Copper Activity on each RJ45 4 x PoE Operation for each RJ45 4 x SFP Speed/Activity/Link for each SFP 1 x Initialise/Ring/Bus 1 x Power Environmental -40 to +75°C Relative Humidity 0 to 95% non-condensing 0mensions 43W x 91D x 130H mm	PoE (user configurable via GUI)	Up to 90W per port with total power budget of 360W
Alarm (ring version only)  Ring to Bus, High Temperature  Opto isolated MOSFET rated at 100mA @ 46V maximum  Alarm Connector  4 way 3.5mm terminal block  8 way DIP switch for configuration  46 to 57VDC @ 8VA maximum (no PoE in use) to 376VA maximum (All ports supplying 90W PoE power)  (>52VDC recommended for PoE <30W or ≥55VDC for PoE >30W  Power Connector  4 way 5.08mm terminal block  4 x Copper Link on each RJ45  4 x Copper Activity on each RJ45  4 x PoE Operation for each RJ45  4 x SFP Speed/Activity/Link for each SFP  1 x Initialise/Ring/Bus  1 x Power  Environmental  -40 to +75°C  Relative Humidity  0 to 95% non-condensing  43W x 91D x 130H mm	Enclosure Protection Class	IP30
Alarm Interface  Opto isolated MOSFET rated at 100mA @ 46V maximum  4 way 3.5mm terminal block  8 way DIP switch for configuration  46 to 57VDC @ 8VA maximum (no PoE in use) to 376VA maximum (All ports supplying 90W PoE power)  (>52VDC recommended for PoE <30W or ≥55VDC for PoE >30W  Power Connector  4 way 5.08mm terminal block  4 x Copper Link on each RJ45  4 x Copper Activity on each RJ45  4 x PoE Operation for each RJ45  4 x SFP Speed/Activity/Link for each SFP  1 x Initialise/Ring/Bus  1 x Power  Environmental  Celative Humidity  Other Structure of the supplies o	Installation	DIN rail, wall mount or desktop
Alarm Connector  4 way 3.5mm terminal block  8 way DIP switch for configuration  46 to 57VDC @ 8VA maximum (no PoE in use) to 376VA maximum (All ports supplying 90W PoE power)  (>52VDC recommended for PoE <30W or ≥55VDC for PoE >30W  Power Connector  4 way 5.08mm terminal block  4 x Copper Link on each RJ45  4 x Copper Activity on each RJ45  4 x PoE Operation for each RJ45  4 x SFP Speed/Activity/Link for each SFP  1 x Initialise/Ring/Bus  1 x Power  Environmental  -40 to +75°C  Relative Humidity  0 to 95% non-condensing  230W or ≥55VDC for PoE >30W  240W or ≥55VDC for PoE >30W  250W or ≥55VDC for PoE >30W  260W  260W  260W  260W  270W  27	Alarm (ring version only)	Ring to Bus, High Temperature
DIP Switch  8 way DIP switch for configuration  46 to 57VDC @ 8VA maximum (no PoE in use) to 376VA maximum (All ports supplying 90W PoE power) (>52VDC recommended for PoE <30W or ≥55VDC for PoE >30W  Dutput PoE Vdrop per port  PoE voltage drop per port <0.5V @ 30W, <1V @ 60W  Power Connector  4 way 5.08mm terminal block  4 x Copper Link on each RJ45 4 x Copper Activity on each RJ45 4 x PoE Operation for each RJ45 4 x PoE Operation for each RJ45 4 x SFP Speed/Activity/Link for each SFP 1 x Initialise/Ring/Bus 1 x Power  Environmental  -40 to +75°C  Relative Humidity  0 to 95% non-condensing  23W x 91D x 130H mm	Alarm Interface	Opto isolated MOSFET rated at 100mA @ 46V maximum
Power Requirements  46 to 57VDC @ 8VA maximum (no PoE in use) to 376VA maximum (All ports supplying 90W PoE power) (>52VDC recommended for PoE <30W or ≥55VDC for PoE >30W  PoE voltage drop per port <0.5V @ 30W, <1V @ 60W  Power Connector  4 way 5.08mm terminal block  4 x Copper Link on each RJ45  4 x Copper Activity on each RJ45  4 x PoE Operation for each RJ45  4 x SFP Speed/Activity/Link for each SFP  1 x Initialise/Ring/Bus  1 x Power  Environmental  -40 to +75°C  O to 95% non-condensing  Dimensions  48 to 57VDC @ 8VA maximum (no PoE in use) to 376VA maximum (All ports supplying 90W poE in use) to 376VA maximum (All ports supplying 90W poE in use) to 376VA maximum (All ports supplying 90W poE in use) to 376VA maximum (All ports supplying 90W poE in use) to 376VA maximum (All ports supplying 90W poE in use) to 376VA maximum (All ports supplying 90W poE in use) to 376VA maximum (All ports supplying 90W poE in use) to 376VA maximum (All ports supplying 90W poE in use) to 376VA maximum (All ports supplying 90W poE power)  6 to 40 to 4	Alarm Connector	4 way 3.5mm terminal block
supplying 90W PoE power) (>52VDC recommended for PoE <30W or ≥55VDC for PoE >30W  PoE voltage drop per port <0.5V @ 30W, <1V @ 60W  Power Connector	DIP Switch	8 way DIP switch for configuration
Power Connector  4 way 5.08mm terminal block  4 x Copper Link on each RJ45  4 x Copper Activity on each RJ45  4 x PoE Operation for each RJ45  4 x SFP Speed/Activity/Link for 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	Power Requirements	supplying 90W PoE power)
A x Copper Link on each RJ45 4 x Copper Activity on each RJ45 4 x PoE Operation for each RJ45 4 x SFP Speed/Activity/Link for 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	Output PoE Vdrop per port	PoE voltage drop per port <0.5V @ 30W, <1V @ 60W
4 x Copper Activity on each RJ45 4 x PoE Operation for each RJ45 4 x SFP Speed/Activity/Link for 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	Power Connector	4 way 5.08mm terminal block
Relative Humidity 0 to 95% non-condensing  43W x 91D x 130H mm	Indicators	4 x Copper Activity on each RJ45 4 x PoE Operation for each RJ45 4 x SFP Speed/Activity/Link for each SFP 1 x Initialise/Ring/Bus
Dimensions 43W x 91D x 130H mm	Environmental	-40 to +75°C
	Relative Humidity	0 to 95% non-condensing
Veight 680g	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
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

## **Dimensions**

## **Din Rail Mounting**





Warranty	
Warranty Period	5 years
MTBF (Ground Benign Environment, 30°C)	480,000 hours

# **Ordering Information**

Part No.	Description
OSD2284P	Lite managed 4 x 10/100/1000BaseT + 2 x SFP Gigabit Ethernet Switch with up to 90W PoE on each RJ45 port (360W total PoE power budget)
SFP	See OSD SFP datasheets #102100XX and #10210000XX