

LAYER 2 MANAGED 26-PORT ETHERNET SWITCH  
WITH 4 x COMBO & 2 x Gb SFP PORTS WITH IEEE802.3bt PoE



## Introduction

The OSD2524P is a Layer 2 managed 26-port industrial ethernet switch offering Power over Ethernet meeting the latest IEEE802.3bt PoE specification with continued support for devices requiring IEEE802.3af/at. Eight RJ45 ports are each capable of supplying up to 90W of power to support the latest PoE devices with a total power budget of 720W. All 24 RJ45 ports can support up to 30W per port concurrently. For increased flexibility there are four RJ45/SFP combo ports along with two Gigabit SFP uplink ports which can be used as uplink ports or as an ITU-TG 8032 redundant ring. With support for VLAN, IGMP snooping, industry standard RSTP or MSTP and IEEE802.1x port security, it is suitable for use in critical networks. A rugged, fan less 1RU high, IP30 19" rack mounting enclosure and an operating temperature range from -20 to +70°C make it suitable for use in a wide range of harsh industrial environments

## Features and Benefits

### Security

With increasing demand for security on distribution and edge switches, the OSD2524P supports 802.1x Port based and MAC based access authentication. Private connections are guaranteed with SSH, Radius and TACACS+ options whilst the latest SNMPv3 protocol is supported.

### Redundancy

To guarantee performance in critical applications, the OSD2524P comes with a dual redundant DC power input. In case of a break in the fiber network the OSD2524P supports ITU-TG 8032 Ethernet Ring Protection Switching to ensure the system reliability. Loop protection is prevented by MSTP/RSTP/STP protocols.

### Management

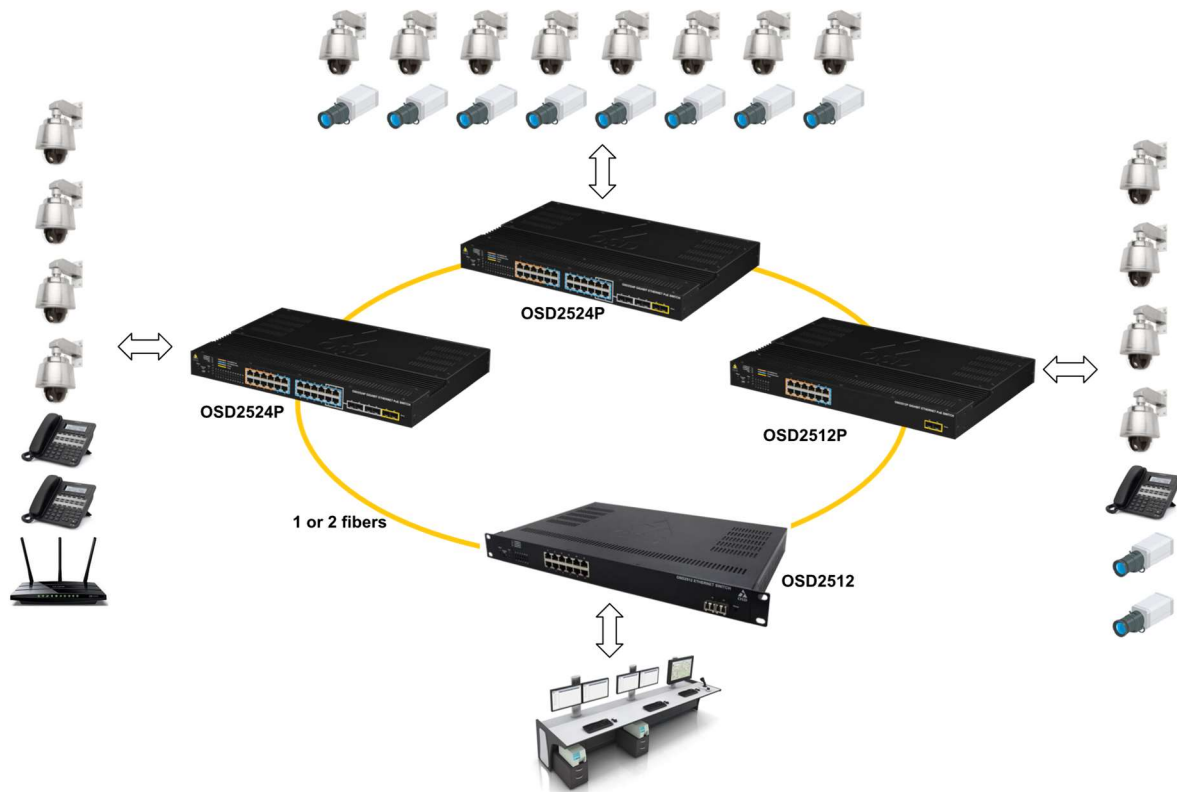
The OSD2524P supports industry standard SNMP v1, v2c and V3 for use with third party NMS. Standard MIB's and OSD private MIBs provide a wide range of parameters that can be monitored or configured remotely. Each OSD2524P has a built in Web browser GUI where detailed information about the individual unit can be accessed and configuration, settings and logs can be viewed and changed. SNMP traps can be set to alert the user in case of some faults such as a problem with the network or a connected device failure.

### IEEE802.3bt compliant

With an overall PoE power budget of 720W the OSD2524P can be deployed in a wide range of communication networks. 8 ports are IEEE802.3bt compliant with each providing up to 90W per port to support the latest IP PTZ cameras, Wireless Access Points, Thin Clients, PoE lighting and other powered devices.



## Typical System Design



## Specifications

### Hardware

|                                 |  |
|---------------------------------|--|
| Ethernet                        | 24 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             | 9.6KB  |
| SFP                             | 4 x SFP Combo ports, 2 x Gigabit SFP trunk ports   |
| Optical Data Interface          | IEEE802.3z 1000Base-Lx/Sx  |
| PoE (user configurable via GUI) | IEEE802.3af/at, IEEE802.3bt (Ports1-8), Legacy PoE (DC capacitance)  |
| CPU Memory                      | 128Mb  |
| Switching Speed                 | 27Gbps switching backplane   |
| Enclosure Protection Class      | IP30   |
| Installation                    | Desktop or 19" rack mount  |
| Mode Selection Switch (push)    | Link/Speed, Link/Duplex, Link/Status, PoE status   |
| Reset Button (recessed push)    | Reset unit   |
| Power Requirements              | 48 to 57VDC @ 40VA maximum (no PoE in use) to 800VA maximum (PoE of 720W)<br>≥52VDC recommended for PD meeting IEEE802.3at & IEEE802.3bt<br>≥55VDC recommended for total PoE power requirement >600W |
| Output PoE Vdrop per port       | PoE voltage drop per port <0.5V @ 30W, <1V @ 60W   |
| Power Connector                 | 8 way 5.08mm terminal block for dual redundant DC powering   |
| Indicators                      | 24 x Mode selectable LEDs (amber/green) for RJ45 ports<br>6 x Speed/Activity/Link LEDs on each SFP<br>1 x Status<br>2 x Power (rear panel)   |
| Environmental                   | -20 to +70°C   |
| Relative Humidity               | 0 to 95% non-condensing  |
| Dimensions                      | 440W x 295D x 44H mm (desktop mount)   |
| Weight                          | 5400g  |

## Management

|             |   |
|-------------|---|
| Interfaces  | Command Line Interface (CLI mini USB)<br>Web browser based Graphical User Interface (GUI)<br>SNMP v1, v2c, v3   |
| Port Status | Speed, duplex mode, link status, auto negotiation status  |
| PoE Status  | GUI controlled for each individual port   |
| Management  | Configuration download or upload.<br>Dot3-OAM-MIB<br>RFC 1213 MIB<br>LLDP-MED power MIB<br>Bridge MIB<br>MSTP MIB<br>LLDP MIB<br>Private MIB Framework<br>Contact OSD for full list of MIBs |

## Layer 2 / Layer 3

|                         |   |
|-------------------------|---|
| 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.<br>Private VLAN, Voice VLAN<br>Protocol based VLAN<br>GVRP, MVRP, MRP  |
| QoS                     | Traffic Classes, Port policers, Port egress shaper, QoS Control List, DiffServ, Scheduler priority, Storm Control   |
| Multicast Protocol      | RFC 2236 IGMP snooping v2, v3<br>MLD snooping v1, v2  |
| IPv4/IPv6               | IPv4 and IPv6 dual stack for data & management<br>DHCPv6 relay, DHCPv6 client. NTP  |
| Security                | ACLs, DHCP snooping, BPDU Guard<br>RADIUS, TACACS+, SSL, SSH, HTTPS, SSLv3, Port Mirroring, sflow,<br>Dynamic ARP Inspection, IP source guard, UDLD/equivalent, RMON<br>IEEE802.1x Port Access Authentication, MAC based authentication |
| Ethernet Redundancy     | IEEE802.1D Spanning Tree Protocol<br>IEEE802.1w Rapid Spanning Tree Protocol<br>IEEE802.1s Multiple Spanning Tree Protocol<br>ITU-TG.8032 Ethernet Ring Protection  |
| Link Aggregation        | Static and LACP link aggregation  |
| Universal plug and Play | UPnP  |
| L3 Routing              | IPv4/IPv6 static routing  |

## PoE Options

|            |  |
|------------|--|
| Ports 1-8  | Disable, Standard mode (802.3bt, 802.3af/at), Legacy support |
| Ports 9-24 | Disable, Standard mode (802.3af/at), Legacy support          |

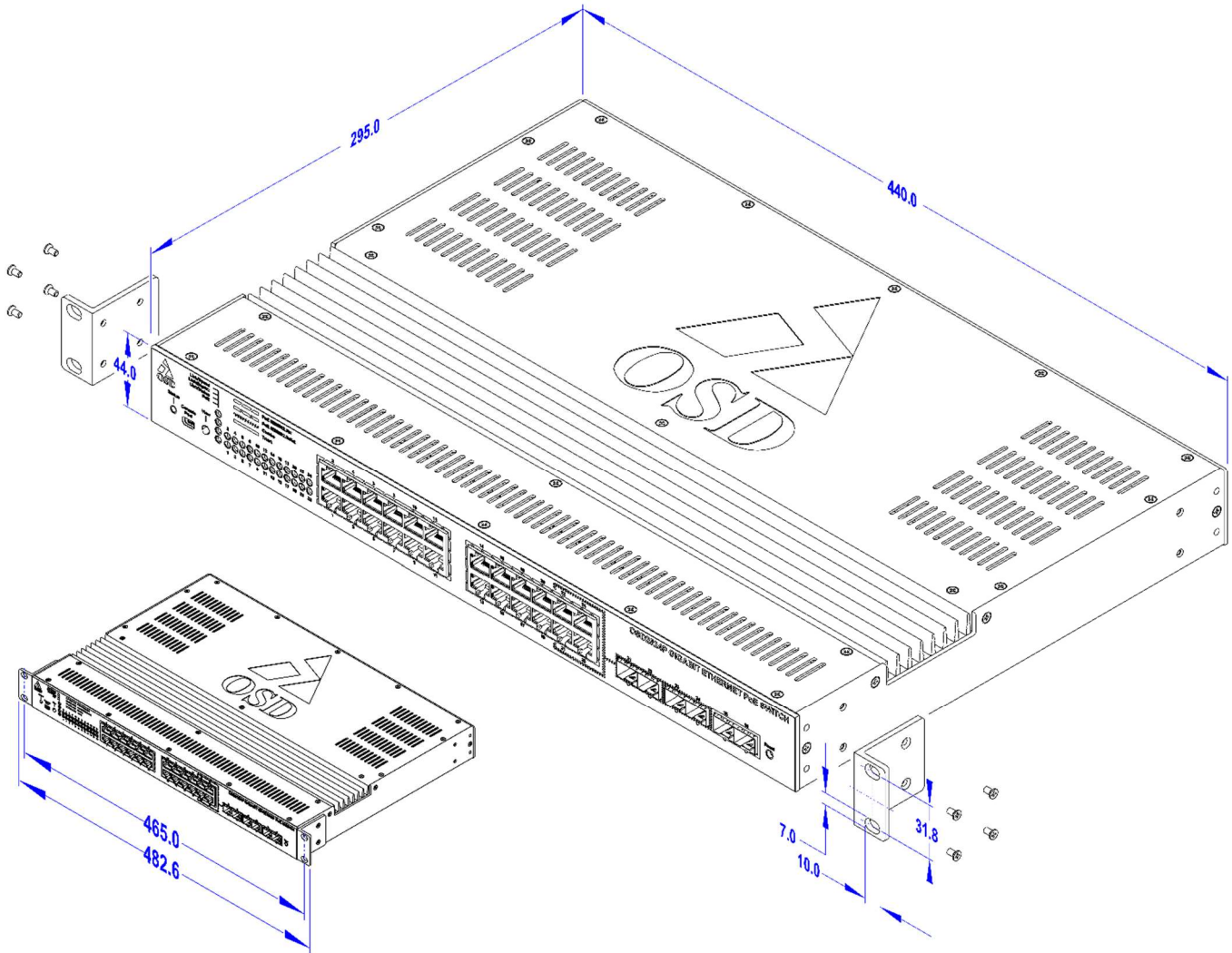
## Environmental

|                       |                         |
|-----------------------|-------------------------|
| Operating Temperature | -20 to +70°C            |
| Relative Humidity     | 5 to 95% non-condensing |

## Warranty

|  |   |
|--|---|
| Warranty Period                        | 5 years                                       |
| MTBF (Ground Benign Environment, 30°C) | 160,000 hours (360W power consumption @ 30°C) |

## Dimensions



## Ordering Information

| Part No.        | Description   |
|-----------------|---|
| <b>OSD2524P</b> | Industrial 26-port Redundant Ring Gigabit Ethernet Switch with up to 720W PoE budget supporting 8 ports IEEE802.3bt or 24 ports IEEE802.3af/at. 4 x RJ45/SFP combo ports and 2 x Gb SFP trunk ports |
| <b>OSD2524</b>  | Industrial 26-port Redundant Ring Gigabit Ethernet Switch with 4 x RJ45/SFP combo ports and 2 x Gb SFP trunk ports  |

## Related Products

| Part No.        | Description   |
|-----------------|---|
| <b>OSD2512P</b> | Industrial 14-port Redundant Ring Gigabit Ethernet Switch with up to 720W PoE budget supporting 8 ports IEEE802.3bt or 12 ports IEEE802.3af/at and 2 x Gb SFP trunk ports |
| <b>OSD2512</b>  | Industrial 14-port Redundant Ring Gigabit Ethernet Switch with 2 x Gb SFP trunk ports   |
| <b>SFP</b>      | See OSD datasheets #1021000XX for GbE SFPs and #102100XX for 100Mbps SFPs   |