

LAYER 2 MANAGED 14-PORT ETHERNET SWITCH
WITH 12x RJ45 & 2 x Gb SFP PORTS WITH IEEE802.3bt PoE



Introduction

The OSD2512P is a Layer 2 managed 14-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 12 RJ45 ports can support up to 30W per port concurrently. There are two Gigabit SFP 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 OSD2512P 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 OSD2512P comes with a dual redundant DC power input. In case of a break in the fiber network the OSD2512P supports ITU-TG 8032 Ethernet Ring Protection Switching to ensure the system reliability. Loop protection is prevented by MSTP/RSTP/STP protocols.

Management

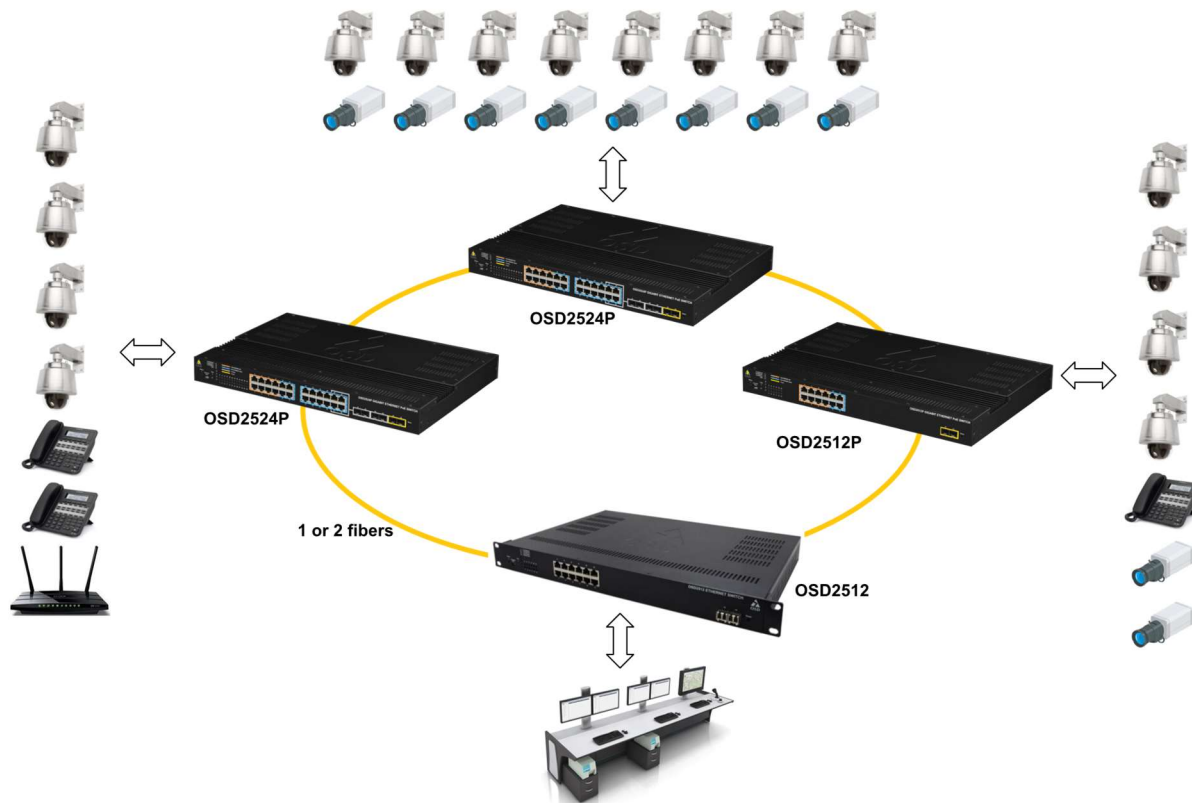
The OSD2512P supports industry standard SNMP v1, v2c and V3 for use with third party NMS. Standard MIB's and OSD private MIBs provide a wide range of parameters that can be monitored or configured remotely. Each OSD2512P has a built in Web browser GUI where detailed information about the individual unit 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 OSD2512P 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	12 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	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	25Gbps 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) ≥52VDC recommended for PD meeting IEEE802.3at & IEEE802.3bt ≥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	12 x Mode selectable LEDs (amber/green) for RJ45 ports 2 x Speed/Activity/Link LEDs for SFP ports 1 x Status 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	4900g

Management

Interfaces	Command Line Interface (CLI mini USB) Web browser based Graphical User Interface (GUI) 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. OAM-MIB RFC 1213 MIB LLDP-MED power MIB Bridge MIB MSTP MIB LLDP MIB Private MIB Framework 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. Private VLAN, Voice VLAN Protocol based VLAN 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 MLD snooping v1, v2
IPv4/IPv6	IPv4 and IPv6 dual stack for data & management DHCPv6 relay, DHCPv6 client. NTP
Security	ACLs, DHCP snooping, BPDU Guard RADIUS, TACACS+, SSL, SSH, HTTPS, SSLv3, Port Mirroring, sflow, Dynamic ARP Inspection, IP source guard, UDLD/equivalent, RMON IEEE802.1x Port Access Authentication, MAC based authentication
Ethernet Redundancy	IEEE802.1D Spanning Tree Protocol IEEE802.1w Rapid Spanning Tree Protocol IEEE802.1s Multiple Spanning Tree Protocol 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 9-12	Disable, Standard mode (802.3af/at), Legacy support

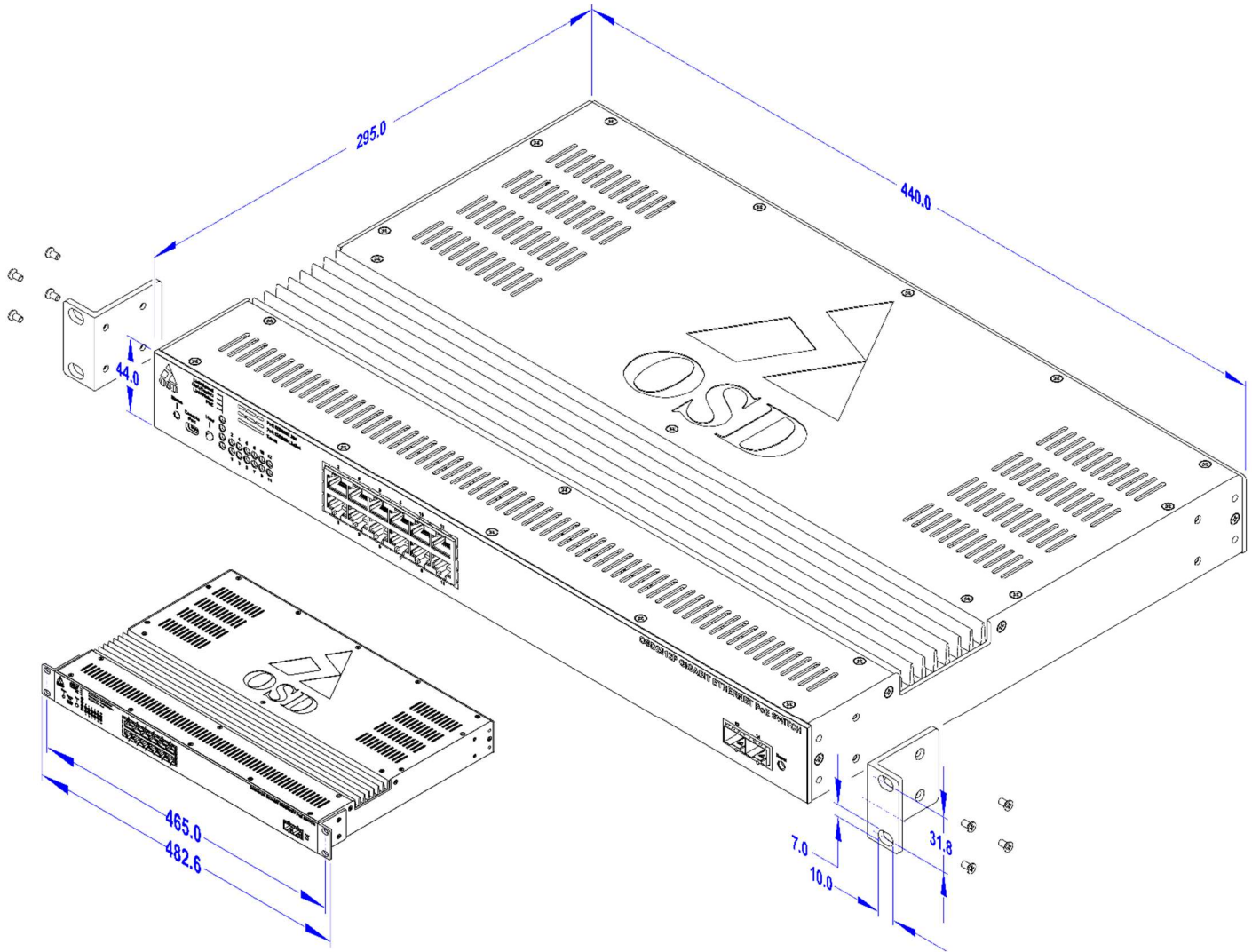
Environmental

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

Warranty

Warranty Period	5 years
MTBF (Ground Benign Environment, 30°C)	200,000 hours (360W power consumption @ 30°C)

Dimensions



Ordering Information

Part No.	Description
OSD2512P	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
OSD2512	Industrial 14-port Redundant Ring Gigabit Ethernet Switch with 2 x Gb SFP trunk ports

Related Products

Part No.	Description
OSD2524P	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
OSD2524	Industrial 26-port Redundant Ring Gigabit Ethernet Switch with 4 x RJ45/SFP combo ports and 2 x Gb SFP trunk ports
SFP	See OSD datasheets #1021000XX for GbE SFPs and #102100XX for 100Mbps SFPs