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Engineered Industrial Ethernet Solutions






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## Unmanaged Fast Ethernet Media Converters & Switches with PoE option

			
Product Range	OSD2041	OSD2043	OSD2051
10/100 Base-T RJ45 ports	1	1	1
Optical port	Fixed x 1	Fixed x 1	SFP x 1
Power Input	9-36VDC 24VAC	9-36VDC 47-57VDC (PoE)	9-36VDC 24VAC
Module Mounting	Wall		
Card version (requires OSD350 or OSD370 rack)	✓	-	-
PoE	-	1 port (optional)	-
PoE Classification	-	IEEE802.3af/at (max 30W)	-
IP rating (module version)	IP30		
Operating Temperature	-40 to 75°C	0 to 60°C Optionally -40 to 75°C	-40 to 75°C
Ambient Relative Humidity	5 to 95% (non-condensing)		
Warranty	5 years		




			
Product Range	OSD2053P	OSD2052	OSD2054P
10/100 Base-T RJ45 ports	1	2	2
Optical port	SFP x 1	SFP x 1	SFP x 1
Power Input	10-36VDC or 46-57VDC	9-36VDC 24VAC	10-36VDC or 46-57VDC
Module Mounting	DIN / Wall	Wall	DIN / Wall
Card version (requires OSD350 or OSD370 rack)	-	-	-
PoE	1 port	-	1 port
PoE Classification	IEEE802.3af (max 15W)	-	IEEE802.3af (max 15W)
IP rating (module version)	IP30		
Operating Temperature	-40 to 75°C		
Ambient Relative Humidity	5 to 95% (non-condensing)		
Warranty	5 years		

## Unmanaged Gigabit Ethernet Media Converters & Switches with PoE option

					
Product Range	OSD2151	OSD2153	OSD2155	OSD2166	OSD2168
10/100/1000 Base-T RJ45 ports	1	1	1	1	1
Optical port	SFP x 1	SFP x 1	SFP x 1	Fixed x 1	Fixed x 1
Power Input	9-36VDC 24VAC	8-35VDC 47-57VDC (PoE)	Rack Mount	9-36VDC	50-56VDC
Module Mounting	Wall		-	Wall	
Card version (requires OSD350 or OSD370 rack)	✓	-	✓	-	-
Jumbo Frames	-	10kB	10kB	10kB	10kB
PoE (optional or fixed)	-	1 port (optional)	-	-	1 port
PoE Classification	-	IEEE802.3af (max 15W)	-	-	IEEE802.3af/at (max 30W)
Additional Features	Link Loss Forwarding			-	-
IP rating (module version)	IP30		-	IP30	
Operating Temperature	-40 to 75°C			0 to 60°C Optionally -20 to 75°C	
Ambient Relative Humidity	5 to 95% (non-condensing)				
Warranty	5 years				

		
Product Range	OSD2139	OSD2175
10/100/1000 Base-T RJ45 ports	1	1
Optical port	SFP x 1	SFP x 2
Power Input	9-35VDC	-44 to -56VDC or 100-264VAC
Module Mounting	Wall	
Card version (requires OSD350 or OSD370 rack)	-	-
Jumbo Frames	10kB	10kB
PoE	-	1 port (optional)
PoE Classification	-	IEEE802.3af/at (max 30W)
Additional Features	Duplex transmission of two alarm signals, one RS485 or RS422 and one RS232	Link Loss Forwarding Optional Synchron- ous Ethernet
IP rating (module version)	IP30	
Operating Temperature	-20 to 75°C	
Ambient Relative Humidity	5 to 95% (non-condensing)	
Warranty	5 years	

## Lite Managed Gigabit Ethernet Switches

			
Product Range	OSD2251	OSD2254	OSD2258
10/100/1000 Base-T RJ45 ports	2	4	8
Optical port	SFP x 2	SFP x 2	SFP x 2
Power Input	10-36VDC		
Module Mounting	DIN / Wall		
Jumbo Frames	10kB		
Management Features	CLI, Web GUI, SNMP v1,v2c,v3 MAC binding to port, Access Control		
Redundant Fiber Ring	Redundant Ring (OSD propretary ring)		
Additional Features	IEEE802.1Q VLAN IGMP Snooping v1, v2, v3		
IP rating (module version)	IP30		
Operating Temperature	-20 to 75°C		
Ambient Relative Humidity	5 to 95% (non-condensing)		
Warranty	5 years		




## Featured Project

### Sultan Haji Omar Ali Saifuddien Bridge, Brunei



The longest bridge in SE Asia was opened in March 2020 utilising OSD products in it's video surveillance system. Over 250 units of OSD225x series of products were used in multiple redundant rings to provide the fiber backbone for high definition video surveillance along this 30km bridge. OSD worked closely with clients in Singapore, Indonesia and Brunei in providing this solution. The OSD2251P were deployed along the bridge to connect to the IP cameras and the OSD2254 provided the connection from the fiber rings to the core network. OSD's range of Industrial Ethernet products are designed to operate in Brunei's climate of high temperatures and high humidity.

## Lite Managed Gigabit Ethernet Switches with IEEE802.3af/at PoE



Product Range	 OSD2251P	 OSD2254P	 OSD2258P
10/100/1000 Base-T RJ45 ports	2	4	8
Optical port	SFP x 2	SFP x 2	SFP x 2
Power Input	46-57VDC		
Module Mounting	DIN / Wall		
Jumbo Frames	10kB		
PoE	2 ports	4 ports	8 ports
PoE Classification	IEEE802.3af/at (max 30W/port)		
PoE Power Budget	120W	240W	480W
Management Features	CLI, Web GUI, SNMP v1,v2c,v3, MAC binding to port, Access Control		
Redundant Fiber Ring	Redundant Ring (OSD proprietary ring)		
Additional Features	IEEE802.1Q VLAN IGMP Snooping v1, v2, v3		
IP rating (module version)	IP30		
Operating Temperature	-20 to 75°C		
Ambient Relative Humidity	5 to 95% (non-condensing)		
Warranty	5 years		

## Featured Products

The OSD225X and OSD228X series of products are ideally suited for deployment at the edge of networks where connection of a product to the network is required. The hardened design of these Industrial Ethernet Switches ensure they can operate in harsh environmental conditions. The lite management features allow the customer to monitor and configure the units remotely using the built in GUI. SNMP v1, v2c, v3 allows the OSD units to be integrated into a third party NMS for ease of monitoring. Each of the OSD225X products can be configured to support IEEE802.3af/at PoE on each RJ45 ports. For newer and more power hungry Powered Devices, the OSD228X series supports the latest IEEE802.3bt standard providing up to 90W over all 4 pairs whilst also being compatible with HDBase-T (PoH) and other non standard protocols. All OSD225X and OSD228X come with two SFP ports allowing great flexibility when connecting these products over a fiber optic network. These two SFP ports can be used as uplink ports or in a redundant ring.



## Lite Managed Gigabit Ethernet Switches with IEEE802.3bt PoE

			
Product Range	OSD2184P	OSD2281P	OSD2284P
10/100/1000 Base-T RJ45 ports	2	2	4
Optical port	SFP x 1	SFP x 2	SFP x 2
Power Input	46-57VDC or 12-57VDC	46-57VDC (PoE)	
Module Mounting	DIN / Wall		
Jumbo Frames	10kB		
PoE	2 ports	2 ports	4 ports
PoE Classification	IEEE802.3af/at IEEE802.3bt HDBase-T (PoH) (max 90W/port)		
PoE Power Budget	170W @ >48VDCin	170W	240W
Management Features	CLI, Web GUI, SNMP v1,v2c,v3 MAC binding to port, Access Control		
Redundant Fiber Ring	-	Redundant Ring (OSD proprietary ring)	
Additional Features	Customisable PoE via Web GUI Non Managed option. DHCP client IEEE802.1Q VLAN	IEEE802.1Q VLAN IGMP Snooping v1, v2, v3	
IP rating (module version)	IP30		
Operating Temperature	-40 to 75°C	-20 to 75°C	
Ambient Relative Humidity	5 to 95% (non-condensing)		
Warranty	5 years		

### Featured Product

The OSD2184P is a lite-managed 3-port industrial ethernet switch offering Power over Ethernet meeting the latest IEEE802.3bt PoE specification with continued support for devices requiring IEEE802.3af/at and HDBase-T (PoH) PoE. Each of the two RJ45 ports is capable of providing 90W of power with a total power budget of 170W. This allows the latest PoE devices such as IP cameras, Wireless Access Points, microwave links and VOIP phones to be easily connected to your network. Support for SNMPv1, v2c, v3 allows the OSD2184P to easily integrate with third party NMS systems. Network security is enhanced with the ability to allow only specific MAC addresses to communicate through each port whilst the OSD2184P also supports DHCP allowing for automatic assignment of IP address, subnet mask, default gateway address and DNS address for ease of integration into the network. With a compact design the OSD2184P can easily be mounted inside a network enclosure or a Smart Pole using the DIN rail or wall mounting brackets provided. Additionally, the OSD2184PW version can be powered from a 12VDC to 57VDC supply (Maximum output power is related to input voltage). A rugged IP30 casing, fanless design and wide operating temperature range from -40 to +75°C make this product ideally suited for use in a wide range of harsh industrial environments.



## Layer 2 Managed Gigabit Ethernet Switches with PoE and SFP combo option

Product Range	OSD2314	OSD2318
10/100/1000 Base-T RJ45 ports	4	8
Optical port	SFP x 3	SFP x 3
Combo Ports (optional)	4 x RJ45/SFP ports	4 or 8 x RJ45/SFP ports
Power Input	10-36VDC (no PoE) 46-57VDC or 12-57VDC (PoE)	
Module Mounting	DIN / Wall	
Jumbo Frames	9.6kB	
PoE (optional)	4 ports	8 ports
PoE Classification	IEEE802.3af/at, IEEE802.3bt, PoH (max 90W/port)	
PoE Power Budget	360W	480W
Management Features	CLI, Web GUI, SNMP v1, v2c, v3	
Redundant Ring	ITU-TG8032 ERPS, MSTP/RSTP/STP	
VLAN	IEEE802.1Q VLAN, Private VLAN, Voice VLAN, Protocol based VLAN, GVRP, MVRP, MRP	
Security	IEEE802.1x Port Access Authentication, MAC based authentication, ACLs, DHCP snooping, BPDU Guard, RADIUS, TACACS+, SSL, SSH, HTTPS, SSLv3, Port Mirroring, sflow, Dynamic ARP Inspection, IP source guard, UDLD/equivalent, RMON	
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	
Layer 3 Routing	IPv4/IPv6 static routing	
IP rating	IP30	
Operating Temperature	-40 to 75°C	
Ambient Relative Humidity	5 to 95% (non-condensing)	
Warranty	5 years	

### Featured Product



The OSD2318 family is based upon a Layer 2 managed 11-port industrial ethernet switch with eight 10/100/1000 Base-T copper ports and three Gigabit SFP ports that can be used as switch or uplink ports. Optional Power over Ethernet meeting the latest IEEE802.3bt PoE specification is available with each RJ45 port capable of supplying up to 90W of power to support the latest PoE devices with a total power budget of 480W. For increased flexibility four or eight RJ45/SFP combo ports can be configured. Two of the gigabit SFP ports can be aggregated for use as uplink ports or any two ports (copper or SFP) can be used as a 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, IP30 DIN Rail mount enclosure and an operating temperature range from -40 to +75°C make it suitable for use in a wide range of harsh industrial environments.



## Layer 2 Managed Gigabit Ethernet Switches with PoE option

Product Range	OSD2512	OSD2524	OSD2790	OSD2790SFP
10/100/1000 Base-T RJ45 ports	12	24	24	-
Optical port	SFP x 2	SFP x 6	SFP x 4	SFP x 28
Combo Ports	-	4 x RJ45/SFP ports	-	-
Power Input	46-57VDC or 100-264VAC(non PoE) Dual Input power option			46-57VDC or 100-264VAC Dual Input power option
Module Mounting	19" Rack Mount / Desktop			
Jumbo Frames	9.6kB			
PoE	12 ports (optional)	24 ports (optional)	24 ports (optional)	-
PoE Classification	IEEE802.3af/at, IEEE802.3bt (8 ports) (max 90W/port)			-
PoE Power Budget	720W			-
Management Features	CLI, Web GUI, SNMP v1, v2c, v3			
Redundant Fiber Ring	ITU-TG8032 ERPS, MSTP/RSTP/STP			
VLAN	IEEE802.1Q VLAN, Private VLAN, Voice VLAN, Protocol based VLAN, GVRP, MVRP, MRP			
Security	IEEE802.1x Port Access Authentication, MAC based authentication, ACLs, DHCP snooping, BPDU Guard, RADIUS, TACACS+, SSL, SSH, HTTPS, SSLv3, Port Mirroring, sflow, Dynamic ARP Inspection, IP source guard, UDLD/equivalent, RMON			
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			
Layer 3 Routing	IPv4/IPv6 static routing		IPv4/IPv6 static routing, RFC2328 OSPFv2 dynamic routing, UPnP, RFC-1812 L3 checking	
IP rating (module version)	IP30			
Operating Temperature	-20 to 70°C			
Ambient Relative Humidity	5 to 95% (non-condensing)			
Warranty	5 years			

## Featured Product

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, fanless 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.





## Layer 2 Managed 10Gb Ethernet Switches with PoE option




Product Range	OSD2888	OSD2890	OSD2890SFP
10/100/1000 Base-T RJ45 ports	12	24	-
Gb Optical port	-	-	SFP x 24
10Gb Optical Ports	SFP x 4	SFP x 4	SFP x 4
Power Input	46-57VDC or 100-264VAC(non PoE) Dual Input power option		46-57VDC or 100-264VAC Dual Input power option
Module Mounting	19" Rack Mount / Desktop		
Jumbo Frames	9.6kB		
PoE	12 ports (optional)	24 ports (optional)	-
PoE Classification	IEEE802.3af/at, IEEE802.3bt (8 ports) (max 90W/port)		-
PoE Power Budget	720W		-
Management Features	CLI, Web GUI, SNMP v1, v2c, v3		
Redundant Fiber Ring	ITU-TG8032 ERPS, MSTP/RSTP/STP		
VLAN	IEEE802.1Q VLAN, Private VLAN, Voice VLAN, Protocol based VLAN, GVRP, MVRP, MRP		
Security	IEEE802.1x Port Access Authentication, MAC based authentication, ACLs, DHCP snooping, BPDU Guard, RADIUS, TACACS+, SSL, SSH, HTTPS, SSLv3, Port Mirroring, sflow, Dynamic ARP Inspection, IP source guard, UDLD/equivalent, RMON		
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		
Layer 3 Routing	IPv4/IPv6 static routing, RFC2328 OSPFv2 dynamic routing, UPnP, RFC-1812 L3 checking		
IP rating (module version)	IP30		
Operating Temperature	-20 to 70°C		
Ambient Relative Humidity	5 to 95% (non-condensing)		
Warranty	5 years		




## Featured Product

The OSD2890 is a full Layer 2 managed 28-port industrial ethernet switch offering some Layer 3 routing functions. It has four 10Gb SFP+ uplink ports that can be aggregated to support a 40Gbps trunk. Alternatively, two of the uplink ports can be used in a redundant ring topology with industry standard ITU-TG 8032 ERPS with RSTP/MSTP support. To meet the increasing demand for network security, the OSD2890 supports IEEE802.1x Port and MAC based security protocol making it suitable for deployment in critical networks. A rugged, fanless 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



## PoE Injectors

			
Product Range	OSD2971/48VDC	OSD2971/240VAC	OSD2975
RJ45 Port Speed	10/100/1000 Base-T		
Power Input	-47 to -57VDC	100-264VAC	20 to 57VDC
Power Input Connection Type	2way 5.08mm Terminal Block	Australian standard plug with 1.4m lead	3way 5.08mm Terminal Block
Module Mounting	Wall		DIN / Wall
PoE Classification	IEEE802.3af/at		
PoE Power Budget	30W	35W	60W
Maximum Cable Distance	100m		
IP Rating (module version)	IP30		
Operating Temperature	-20 to 65°C		-40 to 75°C
Ambient Relative Humidity	5 to 95% (non-condensing)		
Warranty	5 years		

			
Product Range	OSD2J12-0AD6	OSD2J12-0BD6-95	OSD2J12-0HD6-95
RJ45 Port Speed	10/100/1000 Base-T		
Power Input	12 to 56VDC		
Power Input Connection Type	6way 5.08mm Terminal Block		
Module Mounting	DIN Rail		
PoE Classification	IEEE802.3af/at	IEEE802.3af/at/bt	IEEE802.3af/at & PoH
PoE Power Budget	30W	95W	95W
Maximum Cable Distance	100m		
IP Rating (module version)	IP40		
Operating Temperature	-20 to 65°C		
Ambient Relative Humidity	5 to 95% (non-condensing)		
Warranty	5 years		

## Mode Converter

### OSD2010 Industrial Fiber mode converter

Protocol transparent SFP to SFP mode converter  
Operates with SFPs up to 10Gbps  
Can also operate as an optical repeater to extend optical fiber transmission distances  
Alarm outputs for loss of input power and for laser failure  
Dual power supply inputs for 10 to 36VDC or 24VAC



## Accessories

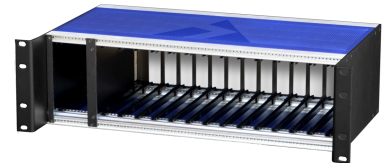
### SFPs

Large range of SFPs supporting speeds up to 10Gbps  
2 Fiber & Single Fiber SFPs transmitting over distances from a few meters to 180km  
CWDM and DWDM wavelengths available  
Industrial temperature range operating from -40 to +85°C



### 19" rack mount chassis for OSD cards

**OSD370B** 3RU high chassis for 14 cards and single **OSD921** power supply  
**OSD350B** 3RU high chassis for 12 cards and dual **OSD921** power supply



### Power Supplies

Large range of power supplies for use with OSD products  
Australian plug packs for direct conversion to 12VDC power  
Desktop power supplies for use with IEC C13 power cord with DC output from 12V to 56V providing up to 280W of power.  
Industrial rated DIN rail mount power supplies with DC output from 12V to 55V providing up to 960W of power.

### Optical Patch Leads

Both multimode and single mode patch leads available in any custom length in simplex or duplex configuration  
Support all common optical connector types with angle polished option available  
Single patch leads available, no large MOQ

## Engineered Industrial Ethernet Solutions

Optical Systems Design Pty Ltd is an Australian designer and manufacturer of rugged industrial networking solutions.

Since 2007 OSD has applied the extensive fiber optic experience and expertise it has developed over more than 35 years to the design and development of products which meet the market's growing demand for industrial ethernet based networks. OSD works closely with both end users and system integrators to provide the best technical and economic solution along with ongoing support for the OSD network implementation.

OSD products are used throughout the world in environments ranging from roadside cabinets to remote mine sites, large campuses to single buildings. OSD has many thousands of systems operating reliably day in day out in extreme environments, some for well over a decade. Contact us today to find out how we can assist with your networking requirements.



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