OSD2244 5-PORT REDUNDANT RING GIGABIT ETHERNET SWITCH

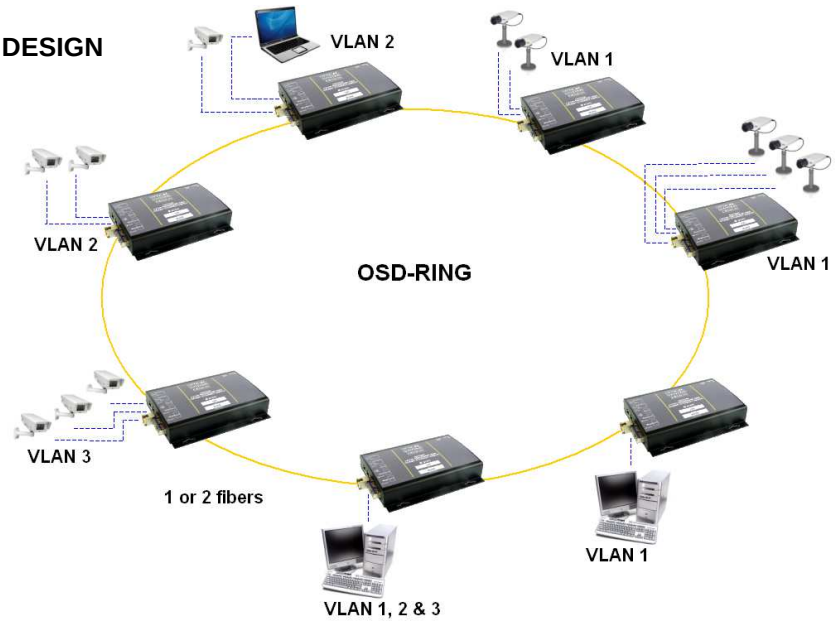
APPLICATIONS

- Any network utilising a mix of copper and fiber
- Industrial IP communications
- Self-healing Gigabit Ethernet backbone networks

FEATURES AND BENEFITS

- Complies with IEEE802.3i/802.3u/802.3ab 10/100/1000Base-T, IEEE802.3u/802.3z 100Base-Fx or 1000Base-LX standards.
- Has a total of five ports: two fixed copper ports for 10/100/1000Base-T, two SFP ports for the fibre ring and one SFP port which may be either copper or fiber.
- A network diameter of hundreds of kilometers is practical
- Ring reconfiguration in the case of cable or modem failures takes less than five milliseconds per hop
- Can be used with either singlemode or multimode fiber over a variety of link budgets
- Available for operation over 1 or 2 fibers.
- Supports network traffic of 1000Mbps.
- MDI/MDIX Crossover: no need for crossover cables
- Auto-Negotiation for half or full duplex operation
- Powered by non critical 12VDC supplies
- Operates over the temperature range of -20 to +75ºC
- SFP module sold separately
- OSDview Lite Network Management System
- IEEE 802.1Q VLAN Tag with up to 64VIDs
- Dual Power Supply Inputs

TYPICAL SYSTEM DESIGN



ORDERING INFORMATION

OSD2244	Singlemode or multimode 10/100/1000BaseT to1000Base-Lx 5 Port Switch Media Converter
Option M	Standalone module version
Option V	IEEE 802.1Q VLAN Tag enabled with up to 64VIDs
Option R	Ring/Bus Relay Alarm Output
SFP Module	See OSD SFP datasheet #102100002

SPECIFICATIONS

ELECTRICAL

Electrical Data Interface	IEEE802.3ab, IEEE802.3u, IEEE802.3i, Base-T Ethernet at 10, 100 or 1000Mbps
Electrical Data Connector	RJ45 on the two fixed copper ports (Ports 1 and 2) and for SFP modules
NMS Serial Data Interface	USB 2.0 (Virtual COM Port)
NMS Serial Data Connector	USB Type B
Optional Alarms	Topology change (Ring/Bus)
Optional Alarm Connector	6 way terminal block
Service Port Interface	USB 2.0
Service Port Connector	USB Type A
Optical Data Interface	IEEE802.3u, IEEE802.3z, 100Base-Fx or 1000Base-Lx
Optical Connector	LC or SC
SFP Port 3, 4 and 5 Options	100Base-Fx, 1000Base-Lx, 10/100/1000Base-T
Operating Mode	Half or full duplex for 10/100, Full duplex for 1000, Pause frames for flow control

OPTICAL

Transmitter Wavelength	1310 ± 30nm
Transmit Optical Power	-10 to -4dBm (-5 and +2dBm @ 1310 and 1550nm are optional)
Receiver Sensitivity	<-21dBm
Standard Optical Link Budget	>11dB: >800m on multimode fiber @ 1310nm (Fiber bandwidth limited) >20km on singlemode fiber @ 1310nm >40km on singlemode fiber @ 1550nm
Optional Optical Link Budget	>23dB: >100km on singlemode with optional 1550nm devices
Various SFP Options Possible	Short haul, long haul, single fiber operation, etc. Please consult OSD DATASHEET #1002100002 or contact OSD

NMS

OSDview Lite NMS Supports	Topology Status (Ring or Bus), Port Status (any node in the ring/bus), Float Backup, Optional - IEEE 802.1Q VLAN Tag with up to 64VIDs (Command Line Interface Only)

PHYSICAL

Operating Temperature Range	-20 to +75ºC
Relative Humidity	0 to 95% non-condensing
Power Requirements	+8V to 35V DC or 22 to 28VAC @ 10VA (with 3 SFPs loaded)
Power Connector	6 way terminal block
Indicators	1x Power 2x Copper Speed/Activity/Link on 2x RJ45s 2x Copper Duplex on 2x RJ45s 3x SFP Speed/Activity/Link for copper or fiber 1x Initialise/Ring/Bus 1x Ring port forward/reverse 1x Ring partner 1x Master (by auto-selection)
Dimensions of Module (mm)	114W x 173D x 31H
Weight of Module (kg)	0.5
Dimensions of Card (mm)	25W x 208D x 100H
Weight of Card (kg)	0.3
Chassis Current Consumption (CCC)	0.90 Amp when fully optioned