OSD2140 Four to One (Or Three to Two) Ethernet Multiplexer

IP 4 ↔

APPLICATIONS

▲   Ethernet security applications

▲   Industrial IP communications

▲   Gigabit backbone networks

FEATURES AND BENEFITS

▲   Complies with IEEE802.3 10/100/1000Base-T, 1000Base-X, 100Base-FX standards.

▲   Has a total of five ports: two fixed copper ports for 10/100/1000Base-T and three SFP ports which may be either copper or fiber.

▲   Two optional usage cases:
-- One Trunk Port + Four Multiplexer Ports
-- Two Trunk Ports + Three Multiplexer Ports.

▲   Ethernet packets are isolated between multiplexer ports, including broadcast packets.

▲   Using two trunk ports can increase trunk bandwidth to two Gigabits and provide redundant fiber operation over the trunk.

▲   Optional four-level priorities can be assigned to each multiplexer port.

▲   Can be used with either singlemode or multimode fiber over a variety of link budgets

▲   Available for operation over 1 or 2 fibers.

▲   Auto MDI/MDIX function, no need for crossover cables.

▲   Powered by non-critical 12VDC supplies

▲   Operates over the temperature range of -20 to +75°C

▲   SFP module sold separately

▲   Dual Power Supply Inputs

TYPICAL APPLICATIONS

One **Trunk** Case

Two Trunk Case

Application Example
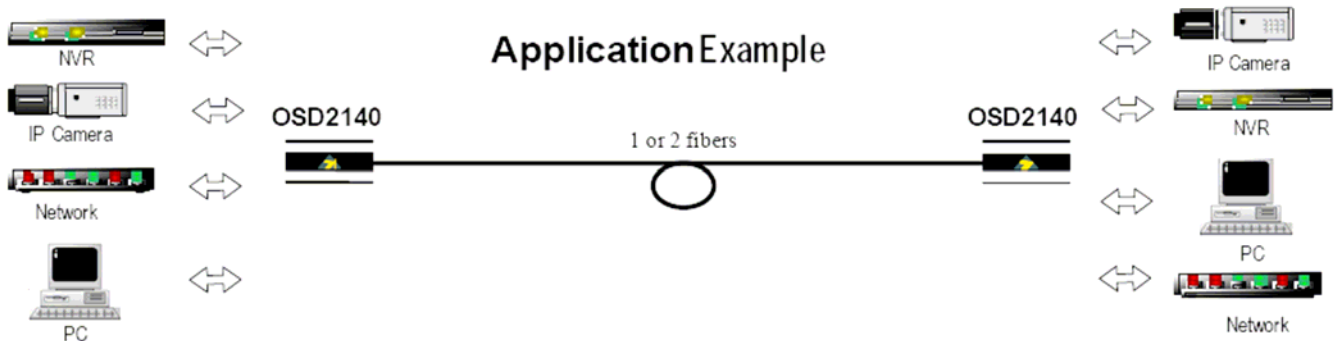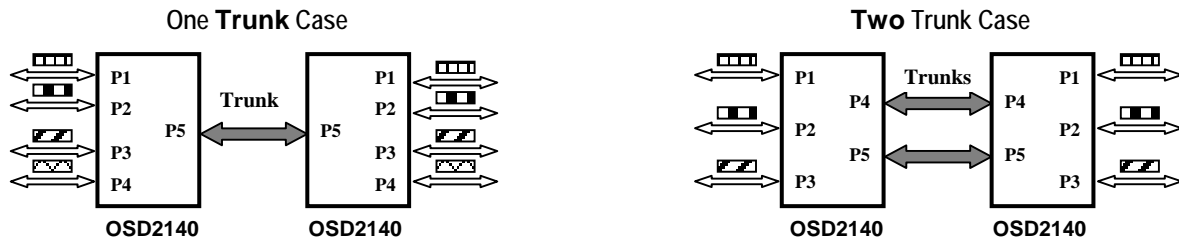
ORDERING INFORMATION

OSD2140	Four-One (Three-Two) Ethernet Multiplexer
Option M	Standalone module version
SFP Module	See OSD SFP datasheet #102100002

SPECIFICATIONS

ELECTRICAL

Electrical Data Interface	10Base-T (IEEE802.3), 100Base-T(IEEE802.3u), 1000Base-T(IEEE802.3ab)
Electrical Data Connector	RJ45 for fixed copper ports (Ports 1 and 2) and three SFP ports
Ports 1 and 2 data rates	10, 100, 1000Mbps with energy detect, auto negotiate, auto MDI/MDIX crossover
Operating Modes	Half or full duplex for 10/100, Full duplex for 1000 Pause frames for flow control
Ports 3, 4 and 5 SFP Options	1000Base-x, 100Base-Fx, 10/100/10000Base-T

OPTICAL

Optical Data Interface	1000Base-X (IEEE802.3z), 100Base-Fx(IEEE802.3u)
Transmitter Wavelength	1310 $\pm$ 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

CONFIGURATION DIP-SWITCHES

4-bit DIP-Switch	Set fiber speed for related SFP port. Up — 100Mbps, Down — 1Gbps
8-bit DIP-Switch	Set priority for each multiplexer port from zero to three, 2 bits for each port. Priority function will be disabled when priorities of all multiplexer ports are set to 0.

PHYSICAL

Operating Temperature Range	-20°C to +75°C
Relative Humidity	0 to 95% non-condensing
Power Requirements	+8V to 35V DC or 22 to 28VAC @ 10VA (with 3 SFPs loaded)
Power Connector	4 way terminal block
Indicators	1x Power 2x Copper Speed/Activity/Link on 2x RJ45s 3x SFP Speed/Activity/Link for copper or fiber
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

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Specifications contained herein are correct at the time of printing. We reserve the right to alter specifications without notice.

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