OSD2139 10/100/1000BASE-T MEDIA CONVERTER WITH 2 DUPLEX DATA & CONTACT CLOSURE CHANNELS
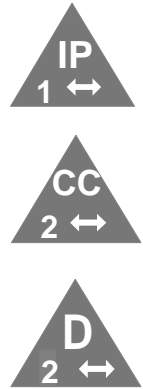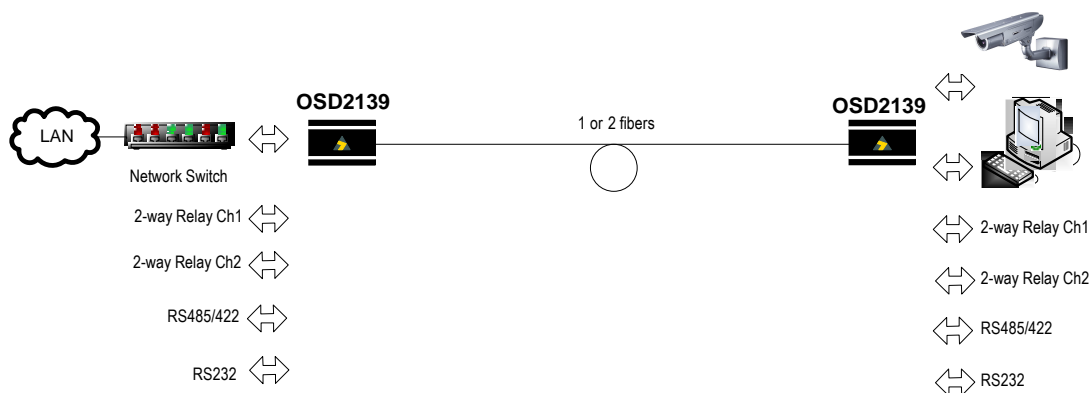
APPLICATIONS

▲ Any network utilising a mix of copper and fiber

▲ Industrial IP communications

▲ Gigabit backbone networks

▲ IP cameras with Pan Tilt Zoom, tamper alarms and/or washer/wiper controls

IP 1 ↔

CC 2 ↔

D 2 ↔

FEATURES AND BENEFITS

▲ Complies with IEEE802.3i/802.3u/802.3ab 10/100/1000Base-T, IEEE802.3u 100Base-Fx, IEEE802.3z 1000Base-Lx/Sx standards

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

▲ Supports network traffic up to 1000Mbps

▲ Duplex transmission of two alarm signals

▲ Duplex transmission of one RS485 or RS422, and one RS232 channel

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

▲ Available for operation over 1 or 2 fibers

▲ Automatic TP setup: no need for crossover cables

▲ Auto MDIX of half or full duplex operation in 10/100 mode

▲ Supports Jumbo Frames

▲ Powered by non-critical 12VDC supplies

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

▲ SFP modules sold separately

TYPICAL SYSTEM DESIGN

LAN — Network Switch — OSD2139 — 1 or 2 fibers — OSD2139

2-way Relay Ch1
2-way Relay Ch2
RS485/422
RS232

2-way Relay Ch1
2-way Relay Ch2
RS485/422
RS232

ORDERING INFORMATION

OSD2139	10/100/1000Base –T to 100Base-Fx/1000Base-Lx/Sx media converter with 2 duplex data and 2 duplex contact closure channels
Option M	Standalone module version
SFP Module	See OSD SFP datasheet #1021000XX

SPECIFICATIONS

ELECTRICAL

Electrical Data Interface	IEEE802.3i/802.3u/802.3ab, 10/100/1000Base-T Ethernet
Electrical Data Connector	RJ45 for Port 1
Electrical Data rates	10, 100, 1000Mbps with energy detect, auto negotiate, auto MDIX
Operating Modes	Half or full duplex for 10/100 Full duplex for 1000 Pause frames based flow control
Serial Data Interface	1 x RS232, 1 x RS422/RS485
Serial Data Rate	DC to 10kbps and 2.4kbps to 115.2kbps, both data channels
Contact Closure Transmission	Buffered input, optically isolated MOSFET output (100mA @ 350V(max))
Data Connector	15 pin female subminiature D connector
User Controls	Six externally accessible switches; 1. 100/1000BASE-X for optical port 2. RS422 or RS485 for Data Channel 1 3. 2-wire or 4-wire RS485 for Data Channel 1 4. 5. } Serial data speed: See table 1 6.

	DC to 120kbps	2.4kbps	4.8kbps	9.6kbps	19.2kbps	38.4kbps	57.6kbps	115.2kbps
4.	0	0	0	0	1	1	1	1
5.	0	0	1	1	0	0	1	1
6.	0	1	0	1	0	1	0	1

Table 1: DIP-Switch settings for serial data speed

OPTICAL

Optical Port Connector	SFP
Various SFP Options Possible	Short haul, long haul, single fiber operation, etc. Please consult OSD datasheet #1021000XX or contact OSD

PHYSICAL

Operating Temperature Range	-20 to +75ºC
Relative Humidity	0 to 95% non-condensing
Power Requirements	+8V to +35VDC @ 8VA (with SFP loaded)
Power Connector	2 way terminal block
Indicators	1x Power 1x Copper Speed/Activity/Link on 1 x RJ45 1x Copper Duplex on 2x RJ45 1x SFP Speed/Activity/Link/Speed
Dimensions of Module (mm)	114W x 173D x 31H (module)
Weight of Module (kg)	0.5
Dimensions of Card (mm)	25W x 208D x 100H (card)
Weight of Card (kg)	0.3
Chassis Current Consumption (CCC)	0.80 Amp when fully optioned