# OSD2251P 4-PORT REDUNDANT RING GIGABIT ETHERNET SWITCH with PoE++ SOURCE

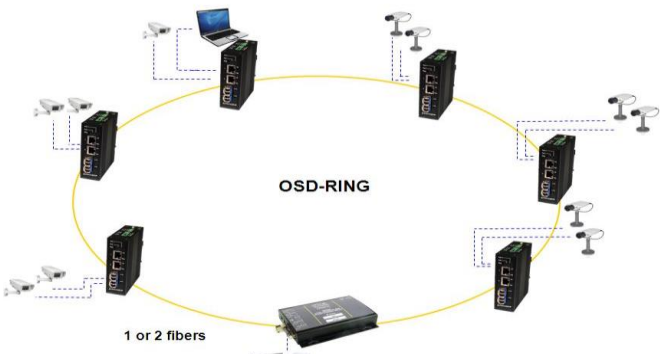

## APPLICATIONS

- Any network utilising a mix of copper and fiber
- Industrial IP communications
- Self-healing Gigabit Ethernet backbone networks
- Networks using Power over Ethernet devices such as cameras, intercoms, access control, telephones, etc

## 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 four ports: two fixed copper ports for 10/100/1000Base-T and two SFP ports for the fiber ring or non-ring (100Base-Fx or 1000Base-X)
- A network diameter of hundreds of kilometers is practical
- Ring reconfiguration in the case of cable or switch failures takes less than two milliseconds per hop
- MDI/MDIX Crossover: no need for crossover cables
- Can be used with either 1 or 2 singlemode or multimode fibers over a variety of link budgets
- Available for operation in ring, bus or point to point configurations
- Auto-Negotiation for half or full duplex operation
- Supports IEEE802.3af/at Alternative A, and B cable wiring
- Complies with the IEEE 802.3af/at standard including compliant powered device (PD) signature detection and classification
- Provides up to 60W (90W optional) to each RJ45 port. Single and dual signature PD detection with OSD's unique automatic PoE configuration.
- Remote PoE on/off control and status monitoring
- Supports 10KB jumbo frames
- Powered by either one or two non-critical 46 to 57VDC supplies, ie redundant power inputs
- Operates over the temperature range of -40 to +75ºC
- Redundant ring operation is compatible with all OSD22XX series Gigabit Ethernet switches
- DIN rail or surface mounting
- OSDview Lite Network Management System and OSDWeb Web browser GUI are both standard
- SFP module sold separately

## TYPICAL SYSTEM DESIGN




## ORDERING INFORMATION

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|---|---|
| OSD2251P | Industrial 4-port Redundant Ring Gigabit Ethernet Switch with 60W PoE on each RJ45 port |
| OSD2251A | Non-PoE version of OSD2251P - See separate OSD2251 datasheet 1022251XX |
| Option WB | Web browser based Graphical User Interface (GUI) |
| SFP Module | See OSD SFP datasheet #1021000XX |

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# SPECIFICATIONS

**ELECTRICAL**

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|---|---|
| Electrical Data Interface | IEEE802.3i/802.3u/802.3ab/802.3af/802.3at, 10/100/1000Base-T Ethernet |
| Electrical Data Rate | 10, 100, 1000Mbps with energy detect, auto negotiate, auto MDIX |
| Optical Data Interface | IEEE802.3z 1000Base-Lx/Sx or IEEE802.3u 100Base-Fx |
| Optical Data Rate | 100Mbps or 1000Mbps user selectable |
| Operating Mode | Ring or non-ring user selectable<br>Half or full duplex for 10/100<br>Full duplex for 1000<br>Flow control |
| Electrical Data Connectors | RJ45 |
| Alarms | Ring to Bus<br>High Temperature |
| Alarm Interface | Optoisolated MOSFET rated at 100mA @ 46V maximum |
| PoE | IEEE802.3af, IEEE802.3at and PoE++ |
| Operating Mode | Alternative A & B (Pins 1/2, 3/6, 4/5, and 7/8) |

**OPTICAL**

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|---|---|
| Optical Port Connectors | SFP |
| SFP Options | Short haul, long haul, single fiber operation, etc.<br>Please consult OSD datasheet #1021000XX or contact OSD |

**MANAGEMENT**

| | |
|---|---|
| Standard Interfaces | Command Line Interface (CLI) for OSD Lite Network Management System<br>Web browser based Graphical User Interface (GUI) (can be disabled by user) |

**PHYSICAL**

| | |
|---|---|
| Operating Temperature Range | -40 to +75ºC |
| Relative Humidity | 0 to 95% non-condensing |
| Power Requirements | 46 to 57VDC @ 3VA maximum (no PoE in use) to 130VA maximum (Both ports supplying 60W PoE++ power)<br>(attached powered device dependent)<br>≥52VDC recommended for PoE+ or ≥55VDC for 60W/90W PoE |
| Power Connector | 4 way 5.08mm terminal block |
| Alarm Connector | 4 way 3.5mm terminal block |
| Indicators | 2x Copper Link on each RJ45<br>2x Copper Activity on each RJ45<br>2x PoE operation on each RJ45<br>2x SFP Speed/Activity/Link on each SFP<br>1x Initialise/Ring/Bus<br>1x Power |
| Dimensions of Module (mm) | 43W x 91D x 110H |
| Weight of Module (kg) | 0.48 |