

Opal10G



10G Port Entry-level Full Gigabit Unmanaged DIN-Rail Switches

- 2 Gigabit SFP slots, 8 10/100/1000Base-T(X) ports
- Setting jumbo frame transmission function (up to 9.6KB) by DIP-Switch
- Both standard and wide operating temperature models are available
- IP30 protection class
- UL508 (Pending), Class I Div 2 (Pending), ATEX Zone 2 (Pending), IECEx (Pending), CE, FCC



Overview

Opal10G series, Kyland produced 10-port unmanaged switches, are characterized by its full Gigabit interface, compact size, economical and plug-and-play design, generally used to connect the high bandwidth Ethernet in factory automation, petrochemical, ITS, and other applications. Opal10G support 2 Gigabit SFP ports and up to 8 10/100/1000Base-TX RJ45 ports, along with metal housing with IP30 protection class, thus ensuring fast and reliable data transmission in harsh industrial environments. The two DIP-switches located on the top of the device are used to enable/disable Broadcast Storm Protection (BSP) function and Jumbo frame transmission function, respectively. Opal10G provide both standard (-10°C to 60°C) and wide (-40°C to 75°C) operating temperature range models to meet different applications.

Technical Specification

Technical Parameters

Standard

- ▼ IEEE 802.3i (10Base-T)
- ▼ IEEE 802.3u (100Base-TX)
- ▼ IEEE 802.3ab(1000Base-T)
- ▼ IEEE 802.3z (1000Base-X)

Switch Properties

| | |
|------------------------|----------|
| MAC Table | 8K |
| Packet Buffer | 4Mbit |
| Packet Forwarding Rate | 14.9Mpps |
| Switching Delay | <5μs |
| Jumbo Frame Size | 9.6KB |

Interface

Gigabit Port

- ▼ 1000Base-X, SFP slot
- ▼ 10/100/1000Base-T(X), RJ45 port

LED

LEDs on Front Panel

- ▼ Power LED: PWR1, PWR2
- ▼ Interface LED: Link/ACT, Speed (RJ45 port); Link/ACT (Fiber port)

DIP-Switch

Enable/Disable broadcast storm protection

Enable/Disable Jumbo frame transmission function (up to 9.6KB)

Power Requirements

| | |
|-----------------------|---|
| Power Input | 12-48VDC/18-30VAC |
| Power Terminal | ▼ 4-pin 5.08mm-spacing plug-in terminal block |
| Power Consumption | <12W |
| Overload Protection | Support |
| Reverse Protection | Support |
| Redundancy Protection | Support |

Physical Characteristics

| | |
|------------------|-----------------------------|
| Housing | Metal |
| Cooling | Natural convection, fanless |
| Protection Class | IP30 |
| Dimension | 54mm×134mm×106mm (W×H×D) |
| Weight | 0.5Kg |
| Mounting | DIN-Rail or Panel Mounting |

Environmental Limits

| | |
|----------------------------|--------------------------|
| Operating Temperature | |
| ▼ -10 to +60°C (Opal10G-E) | |
| ▼ -40°C to +75°C | |
| Storage Temperature | -40°C to +85°C |
| Ambient Relative Humidity | 5 - 95% (non-condensing) |

Warranty

| | |
|----------|---------------|
| MTBF | 2,497,305 hrs |
| Warranty | 5 years |

Approvals

UL508 (Pending), Class I Div 2 (Pending), ATEX Zone 2 (Pending), IECEx (Pending), CE, FCC

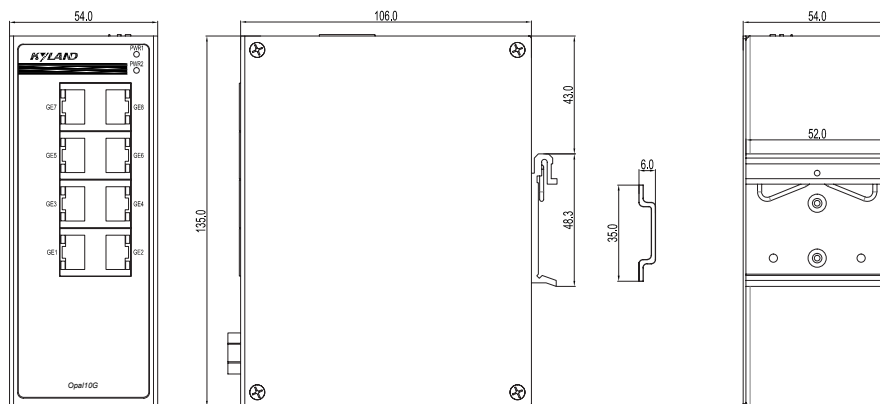
Industrial Standard

| | |
|--|--|
| EMI | |
| ▼ FCC CFR47 Part 15,EN55022/CISPR22,Class A | |
| EMS | |
| ▼ IEC61000-4-2(ESD): ±6kV (contact), ±8kV (air) | |
| ▼ IEC61000-4-3(RS): 10V/m (80MHz - 2GHz) | |
| ▼ IEC61000-4-4(EFT): Power Port: ±2kV; Data Port: ±1kV | |
| ▼ IEC61000-4-5(Surge): Power Port: ±1kV/DM, ±2kV/CM; Data Port: ±1kV | |
| ▼ IEC61000-4-6(CS): 10V (150kHz - 80MHz) | |

Machinery

| |
|-----------------------------|
| ▼ IEC60068-2-6 (Vibration) |
| ▼ IEC60068-2-27 (Shock) |
| ▼ IEC60068-2-32 (Free Fall) |

Mechanical Drawing



Ordering Information

| Opal10G-X-Ports-PS | |
|--------------------|---|
| X | Operating temperature range |
| E | -10 °C~+60 °C operating temperature |
| None | -40 °C~+75 °C operating temperature |
| Ports | |
| 2GX8GE | 2 X 1000Base-X SFP slots, 8 X 10/100/1000Base-T(X) RJ45 ports |
| 8GE | 8X10/100/1000Base-T(X) RJ45 ports |
| PS | |
| LV-LV | 12-48VDC/18-30VAC, redundant power inputs |

Optional Accessories

| Model | Description |
|--------------------|--|
| Gigabit SFP module | Please refer to the Gigabit SFP module ordering list |
| DT-BGAZ-11 | Panel for Panel mounting |
| DT-FCZ-RJ45-01 | Dustproof cover for RJ45 port |