KYLAND

Opal10G
10G port entry-level full gigabit unmanaged DIN-Rail switches

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.

Key Features

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

CE, FCC, UL61010, Class I Div 2, IECEx, ATEX Zone 2, Ex nA IIC T4 Gc

Product Specifications

>Technical Specification
-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)

-Quality Assurance

MTBF: 2,486,573 hrs

Warranty: 5 years

-Approvals

CE, FCC, UL61010, Class I Div 2, IECEx, ATEX Zone 2, Ex nA IIC T4 Gc

-Industry 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
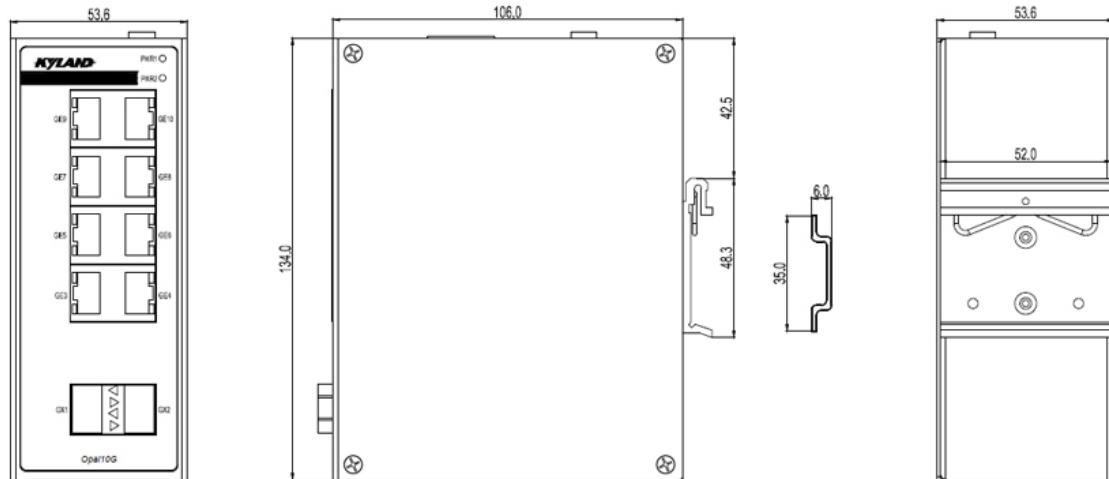
IEC61000-4-6(CS): 10V (150kHz–80MHz)

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 to +60°C operating temperature
None	-40 to+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

Accessories

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

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