Opal10G

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

NEW

- 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

CE FC

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℃ to 60℃) and wide (-40℃ to 75℃) 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
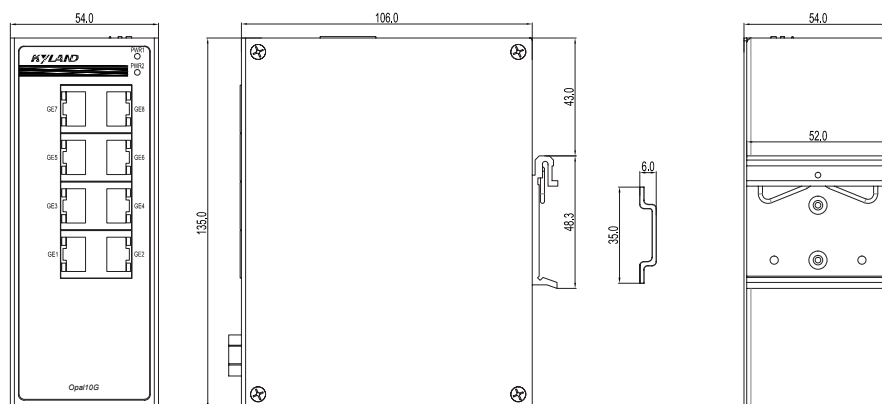
Industrial Standard

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