

Opal10

Preliminary



6+4G Port Entry-level Unmanaged DIN-Rail Switch

- Support 2 10/100/1000Base-TX ports, 2 Gigabit SFP ports and 6 10/100Base-TX ports
- Setting SFP port speed (100M/1000M) 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 (pending), FCC (Pending)

Overview

Opal10 unmanaged DIN-Rail switch is specially designed for automation control applications. It is equipped with up to 6 10/100Base-TX RJ45 ports, 2 10/100/1000Base-TX RJ45 ports and 2 SFP ports which can be set to be 100M or 1000M by DIP-Switch located on the top of the switch, making the applications more flexible. Opal10 supports redundant power inputs, metal housing with IP30 protection class, thus ensuring fast and reliable data transmission in harsh industrial environments. Opal10 provides both standard (-10 to 60°C) operating temperature range model and wide (-40 to 75°C) operating temperature range models to meet different needs of applications.

Technical Specification

Technical Parameter

Standard

- ▼ IEEE 802.3i (10Base-T)
- ▼ IEEE 802.3u (100Base-TX and 100Base-FX)
- ▼ IEEE 802.3ab(1000Base-T)
- ▼ IEEE 802.3z (1000Base-X)
- ▼ IEEE802.3x (Flow Control)

Switch Properties

MAC Table	8K
Packet Buffer	4Mbit
Packet Forwarding Rate	4.2Mpps
Switching Delay	<10μs

Interface

Gigabit Port

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

LED

LED on Front Panel

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

DIP-Switch

Enable/Disable broadcast storm protection
Set the SFP port speed to 100M or 1000M

Power Requirements

Power Input	12-48VDC/18-30VAC
Power terminal	▼ 4-pin 5.08mm-spacing plug-in terminal block
Power Consumption	<10W
Overload protection	Support
Reverse protection	Support
Redundancy protection	Support

Physical Characteristics

Housing	Metal
Cooling	Natural convection, fanless
Protection Class	IP30
Dimension	54mm×135mm×106mm (W×H×D)
Weight	0.5Kg
Mounting	DIN-Rail or Panel mounting

Environmental Limits

Operating Temperature	
▼ -10°C~+60°C (Opal10-E)	
▼ -40°C~+75°C	
Storage Temperature	-40°C~+85°C
Ambient Relative Humidity	5-95% (non-condensing)

Warranty

MTBF	2,093,638 hrs
Warranty	5 years

Approvals

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

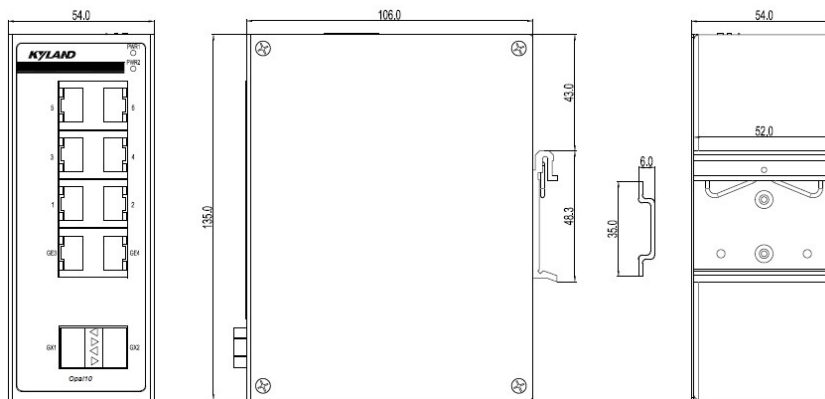
Industry Standard

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

Opal10-X-Ports-PS	
X	Operating temperature range
E	-10°C~+60°C operating temperature
None	-40°C~+75°C operating temperature
Ports	
2GX2GE6T	2 X 1000Base-X, SFP slots, 2 X 10/100/1000Base-T(X) RJ45 ports; 6X10/100Base-T(X) RJ45 ports
PS	
LV-LV	12-48VDC/18-30VAC, redundant power inputs

» Accessories

Model	Description
Gigabit SFP module	Please refer to the Gigabit SFP module ordering list
100Base-X SFP module	Please refer to the 100Base-X SFP module ordering list
DT-BGAZ-11	Panel for Panel mounting
DT-FCZ-RJ45-01	Dustproof cover for RJ45 port