Opal5G

5G Port Entry-level Full Gigabit Unmanaged DIN-Rail Switches

- Support 5 10/100/1000Base-TX RJ45 ports
- Setting jumbo frame transmission function (up to 10KB) 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

Opal5G series, Kyland produced 5-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. Opal5G support 5 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. Opal5G 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)

Switch Properties

MAC Table	8K
Packet Buffer	1Mbit
Packet Forwarding Rate	7.4 Mpps
Switching Delay	<5μs
Jumbo Frame Size	10KB

Interface

Gigabit Port	10/100/1000Base-T(X), RJ45 port

LED

LEDs on Front Panel
- Power LED: PWR1, PWR
- Interface LED: Link/ACT, Speed (RJ45 port)

DIP-Switch

Enable/Disable broadcast storm protection function
Enable/Disable Jumbo frame transmission function (up to 10KB)

Power Requirements

Power Input	12-48VDC/18-30VAC
Power Terminal	

- 4-pin 5.08mm-spacing plug-in terminal block

Power Consumption	<6W
Overload Protection	Support
Reverse Protection	Support
Redundancy Protection	Support

Physical Characteristics

Housing	Metal
Cooling	Natural convection, fanless
Protection Class	IP30
Dimension	30mm×115mm×68mm (W×H×D)
Weight	0.3Kg
Mounting	DIN-Rail or Panel mounting

Environmental Limit

Operating Temperature
- -10℃ to +60℃(Opal5G-E)
- -40℃ to +75℃

Storage Temperature	-40℃ to +85℃
Ambient Relative Humidity	5℃ 95% (non-condensing)

Warranty

MTBF	3,241,152 hrs
Warranty	5 years

Approvals

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

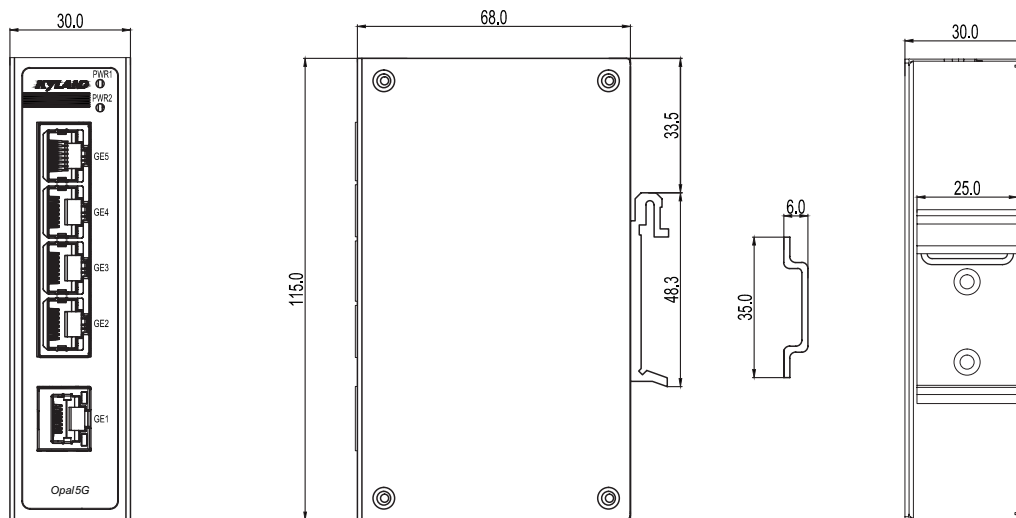## Industry Standard

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: ±2kV
▼ 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

	Opal5G-X-Ports-PS1-PS2
XO	**perating temperature range**
E	-10℃-+60℃ operating temperature
None	-40℃-+75℃ operating temperature
Ports	
5GE	5X10/100/1000Base-T(X) RJ45 ports
PS	
LV-LV	12-48VDC/18-30VAC, redundant power inputs

≫ Optional Accessories

Model	Description
DT-BGAZ-13	Panel for Panel mounting
DT-FCZ-RJ45-01	Dustproof cover for RJ45 port