# Opal5GL <br> 5G port full gigabit unmanaged DIN-Rail switches 



## 》 Overview

Opal5GL unmanaged 5-port switch is 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. Opal5GL supports 1 Gigabit SFP/RJ45 optional port and 4 10/100/1000Base-TX RJ45 ports, redundant power inputs, built-in isolated power supply, metal housing with IP40 protection class, thus ensuring fast and reliable data transmission in harsh industrial environments. Opal5GL provides both standard $\left(-10^{\circ} \mathrm{C}\right.$ to $\left.60^{\circ} \mathrm{C}\right)$ and wide $\left(-40^{\circ} \mathrm{C}\right.$ to $\left.75^{\circ} \mathrm{C}\right)$ operating temperature range models to meet different applications.

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## 1) Product Specifications

>Specifications
-Standard

IEEE 802.3i (10Base-T)
IEEE 802.3u (100Base-TX)
IEEE 802.3ab (1000Base-T)
IEEE 802.3z (1000Base-X)
IEEE 802.3x (Flow Control)
-Switch Properties

MAC Table: 4 K
Packet Buffer: 1.5Mbit
Packet Forwarding Rate: 7.4 Mpps
Switching Delay: $<5 \mu \mathrm{~s}$
Jumbo Frame Size: 9KB
-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)
-Power Requirements

Power Input: 12-48VDC/18-30VAC
Power Terminal: 4-pin 5.08 mm -spacing plug-in terminal block
Power Consumption: 4.3W(1GX4GE), 4.1W(5GE)
Overload Protection: Support
Reverse Protection: Support
Redundancy Protection: Support
-Physical Characteristics

Housing: Metal
Cooling: Natural convection, fanless
Protection Class: IP40
Dimension: $31 \mathrm{~mm} \times 114.5 \mathrm{~mm} \times 94 \mathrm{~mm}(\mathrm{~W} \times \mathrm{H} \times \mathrm{D})$
Weight: 0.3 Kg
Mounting: DIN-Rail or Panel mounting
-Environmental Limits

Operating Temperature:
$-10^{\circ} \mathrm{C}$ to $+60^{\circ} \mathrm{C}(-\mathrm{E})$
$-40^{\circ} \mathrm{C}$ to $+75^{\circ} \mathrm{C}$
Storage Temperature: $-40^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$
Ambient Relative Humidity: $5^{\circ} \mathrm{C} 95 \%$ (non-condensing)

## -Quality Assurance

MTBF: 6810066 hrs
Warranty: 5 years

## -Approvals

CE, FCC
UL61010, Class I Div 2 (Pending)
-Industry Standard
EMI:
FCC CFR47 Part 15,EN55032/CISPR22,Class A
EMS:
IEC61000-4-2(ESD): $\pm 6 \mathrm{kV}$ (contact), $\pm 8 \mathrm{kV}$ (air)
IEC61000-4-3(RS): $10 \mathrm{~V} / \mathrm{m}(80 \mathrm{MHz}-2 \mathrm{GHz})$
IEC61000-4-4(EFT): Power Port: $\pm 4 \mathrm{kV}$; Data Port: $\pm 2 \mathrm{kV}$
IEC61000-4-5(Surge): Power Port: $\pm 1 \mathrm{kV} / \mathrm{DM}, \pm 2 \mathrm{kV} / \mathrm{CM}$; Data Port: $\pm 2 \mathrm{kV}$
IEC61000-4-6(CS): 10 V (150kHz-80MHz)
Machinery:
IEC60068-2-6 (Vibration)
IEC60068-2-27 (Shock)
IEC60068-2-32 (Free Fall)

Mechanical Drawing

Opal5GL-5GE:


Opal5GL-1GX4GE:


1) Ordering Information

Opal5GL-X-Ports-PS1-PS2

| Opal\| | Operating temperature range |
| :--- | :--- |
| E | -10 to $+60^{\circ} \mathrm{C}$ operating temperature |
| None | -40 to $+75^{\circ} \mathrm{C}$ operating temperature |
| Ports |  |
| 1GX4GE | $1 \times 1000$ Base-X SFP slot, $4 \times 10 / 100 / 1000 \mathrm{Base}-\mathrm{T}(\mathrm{X})$ RJ45 ports |
| 5 SGE |  |
| PS1-PS2 | $12-48 \mathrm{VDC} / 18-30 \mathrm{VAC}$, redundant power inputs |
| LV-LV |  |
|  |  |
| Accessories | Please refer to the Gigabit SFP module ordering list |
| Gigabit SFP module | Panel for Panel mounting |
| DT-BGAZ-01 | Dustproof cover for RJ45 port |
| DT-FCZ-RJ45-01 |  |


[^0]:    2) Key Features

    Support 1 Gigabit SFP/RJ45 optional port and 4 10/100/1000Base-TX RJ45 ports
    Built-in isolated power supply, Full load power consumption is as low as 4.3 W Both standard and wide operating temperature models are available Jumbo frame transmission function (up to 9KB)

    EMC level 3
    IP40 protection class

