RLH Industries, Inc.
fiberopticlink.com

PRODUCT DATA SHEET

DS-169 2025-1002

5 Unmanaged 10/100/1G PoE++ Industrial Switch

ETH-5GP-BT-1

802.3bt 90 Watts of Power, PoE Load Indicator and DIP Switch PoE Power Cut Off

RLH hardened industrial Ethernet switches are engineered to provide reliable network performance in harsh environments. The Industrial 5 Port Gigabit Ultra PoE++ Switch provides Gigabit data transfer and can supply four Powered Devices (PDs) with up to PoE++-rated power. Four (4) of its five (5) copper Ethernet ports can supply PoE++.

Four (4) PoE++-rated ports can output up to 90 Watts of power in compliance with Type 4 IEEE 802.3bt power distribution, while the switch upholds a maximum power consumption budget of 190W. It also includes DIP switches that disable the PoE++ ports' PoE functionality, decreasing the switch's overall power consumption. This switch maintains redundant power input terminals with a corresponding alarm relay that informs users of lost redundant power and/or PoE faults.

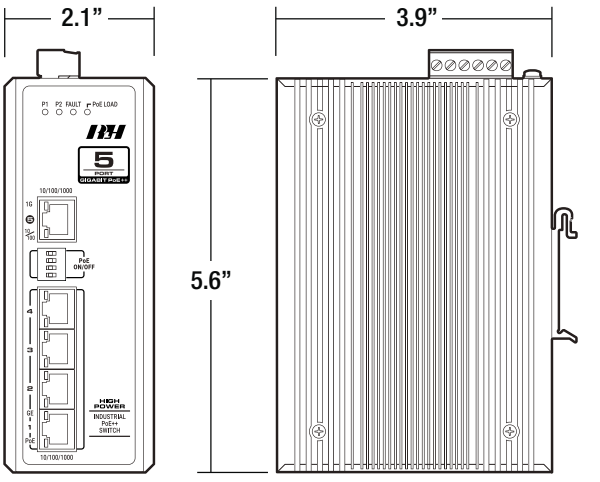
The Industrial 5 Port Gigabit Ultra PoE++ Switch's ability to supply PDs with PoE++ categorizes it as an ideal solution when deploying advanced surveillance systems, high-performance wireless networks, and industrial automation systems. Common power-hungry PDs integrated with this switch are monitored PTZ IP cameras, gate and building access controllers, wireless access points, and thin clients.

5 Unmanaged 10/100/1G PoE++

Features

- 4 Ports of Gigabit PoE++ (90W/Port), 1 Non-PoE Gigabit Port
- IEEE 802.3af/at/bt-compliant (Type 3 and Type 4 IEEE 802.3bt)
- Supports Mode A, Mode B, and 4-Pair Mode PoE power relaying
- PoE ON/OFF DIP switches for simplified PoE port control
- Status LEDs for input power, alarm relay, and PoE Load
- Alarm relay for redundant power loss and PoE faults
- Overload current protection and reverse polarity protection
- Hardened to operate in -40°C to +167°C (-40°F to +75°F)
- DIN rail or Wall Mount (Wall mount ears included)
- Redundant Power Inputs (48~55VDC)
- Highly reliable 1,542,873-hour MTBF
- UL Listed, CE, FCC, RoHS, REACH, NDAA Compliant

Dimensions



Front Panel Side Panel

IEEE Compliance

Standards:	**IEEE 802.3**	10Base-T (Ethernet)	**IEEE 802.3u**	100Base-TX (Fast Ethernet)
	IEEE 802.3ab	1000Base-T (Gigabit Ethernet)	**IEEE 802.3x**	Flow Control (Back Pressure)
	IEEE 802.3af	Power over Ethernet (PoE)	**IEEE 802.3at**	Power over Ethernet Plus (PoE+)
	IEEE 802.3bt	High Power Power over Ethernet (PoE++)		

Switch Characteristics

Switching Architecture:	Layer 2, Unmanaged
Backplane Capacity:	10Gbps
Jumbo Frame:	10KB
Data Processing Type:	Store and Forward
Memory Buffer:	1Mb
MAC Table Size:	8K

Interface Characteristics

Ethernet Ports:	**5x Copper**	10/100/1000Base-T(X) - 4x PoE++ (IEEE 802.3af/at/bt-compliant), 1x Non-PoE
	Auto-Negotiation, Full/Half Duplex, Auto-MDI/MDI-X	
DIP Switches:	**4x Switch**	PoE ON/OFF - PoE Port Power Output (Default Position: ON)
Alarm Relay Contact:	**1x Relay**	Normally Closed (SPST) - 24VDC, 1A resistive (Redundant Power Loss, PoE Faults)
PoE Pinout:	**Mode A**	Pin 1 (V-), Pin 2 (V-), Pin 3 (V+), Pin 6 (V+)
	Mode B	Pin 4 (V+), Pin 5 (V+), Pin 7 (V-), Pin 8 (V-)
	4-Pair Mode	Pin 1 (V-), Pin 2 (V-), Pin 3 (V+), Pin 4 (V+), Pin 5 (V+), Pin 6 (V+), Pin 7 (V-), Pin 8 (V-)
	*This Ethernet switch supports Mode A, Mode B, and 4-Pair Mode PoE relaying power schemes	
LED Status Indicators:	**Input Power**	Power Input 1 (P1), Power Input 2 (P2)
	Alarm Relay	Alarm Warning Status (FAULT)
	PoE Load	PoE Load Status (P/L)

Power Characteristics

Power Input:	Dual 48-55VDC Redundant Power Inputs (6-Position Pluggable Terminal Block)
	*For PoE++ (IEEE 802.3bt) applications, apply a 53-55VDC input
Overload Current Protection:	Present - Slow-Blow Fuse
Reverse Polarity Protection:	Present - Polarity (+/-) Insensitive Terminal Contacts
Max. Power Consumption:	190 Watts (assuming full PoE load)
Max. PoE Output:	90 Watts (per PoE port)

Mechanical/Environmental Characteristics

Construction:	Power coated IP30 steel housing	
Case Dimensions:	2.12" (W) x 3.90" (D) x 5.59" (H), (54mm x 99mm x 142mm)	
Weight:	1.85 lbs. / 0.84 kg (Unit Weight) 2.51 lbs. / 1.14 kg (Shipping Weight)	
Installation:	Standard T-35 DIN rail clip and wall mount ears (Included)	
Temperature:	Storage:	-40°C to +85°C (-40°F to +185°F)
	Operating:	-40°C to +75°C (-40°F to +167°F)
Ambient Relative Humidity:	5% to 95% (non-condensing)	

Regulatory Approvals

EMI/EMS:	FCC Part 15 Subpart B Class A, CE EN55032, CE EN55035, CE EN61000-4-2/3/4/5/6
Stability Testing:	IEC60068-2-6 (Vibration), IEC60068-2-27 (Shock), IEC60068-2-32 (Free Fall)
Safety:	UL 61010-1 and UL 61010-2-201, File Number: E544369, CE, FCC, UL Class 1/Div.2
Compliance:	NDAA, TAA, RoHS and REACH compliant
MTBF:	1,542,873 hrs. - Telcordia SR-332, Issue 3, GB, 25°C
Warranty:	5 Years - Visit www.fiberoptic.com for warranty information and coverage details

Ordering Information

Description	Part Number
Unmanaged PoE++ Switch, 5 Gigabit Ports (4x 90W PoE++, 1x Non-PoE), Powering Voltage 48~55 DC	**ETH-5GP-BT-1**

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