



## 8+2 Managed Gigabit SFP PoE+ Switch

## ETH-82GMP-1

### Managed Light Layer 3, Industrial 30W PoE+

RLH managed industrial switches are engineered to provide reliable network performance in harsh environments. The 8+2 Managed Gigabit SFP PoE+ Switch provides both copper and fiber Gigabit Ethernet access, along with PoE+ powering capabilities. This environmentally hardened Light Layer 3 switch is manageable and offers a wide array of configuration and monitoring options.

The PoE+ ports provide up to 30 Watts of power to end devices following the IEEE 802.3af/at standard. The switch also comes with redundant power inputs and fault alarm relay for reliability, and is covered by our 5 year warranty.

### Features

- 8 Ports of 10/100/1000 PoE+ (30W/Port), IEEE 802.3af/at
- 2 Dual Rate SFP ports – 100Mbps & 1Gbps
- Wide operating temperature range -40°F to +167°F (-40°C to +75°C)
- 12-55VDC dual redundant power inputs
- Rugged case rated to IP-30
- DIN rail & wall mountable
- UL Listed, Class 1 Division 2 Hazardous Location Certified
- TAA, NDAA, REACH, CE, FCC Class A, and RoHS Complaint
- Meets NEMA TS2 Requirements for Traffic Control
- Covered by our 5 year warranty

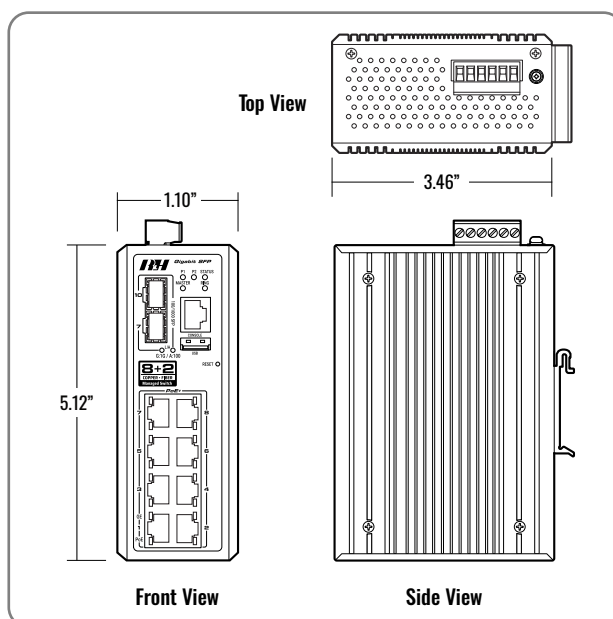
### Management

- Light Layer 3 Switch - Supports Static Routes, Inter-VLAN Routing, ACLs, IPv4/IPv6, and DHCP Option 66/67/82
- Network Redundancy: ERPS v1/v2 (G.8032), STP/RSTP/MSTP
- Network Monitoring: SNMP v1/v2c/v3, RMON, sFlow, SPAN
- PoE Port Control & Monitoring
- Programmable alarm relay that alerts users of power/link/PoE failures
- Configuration via Web, Serial, Telnet, SSH, and SNMP

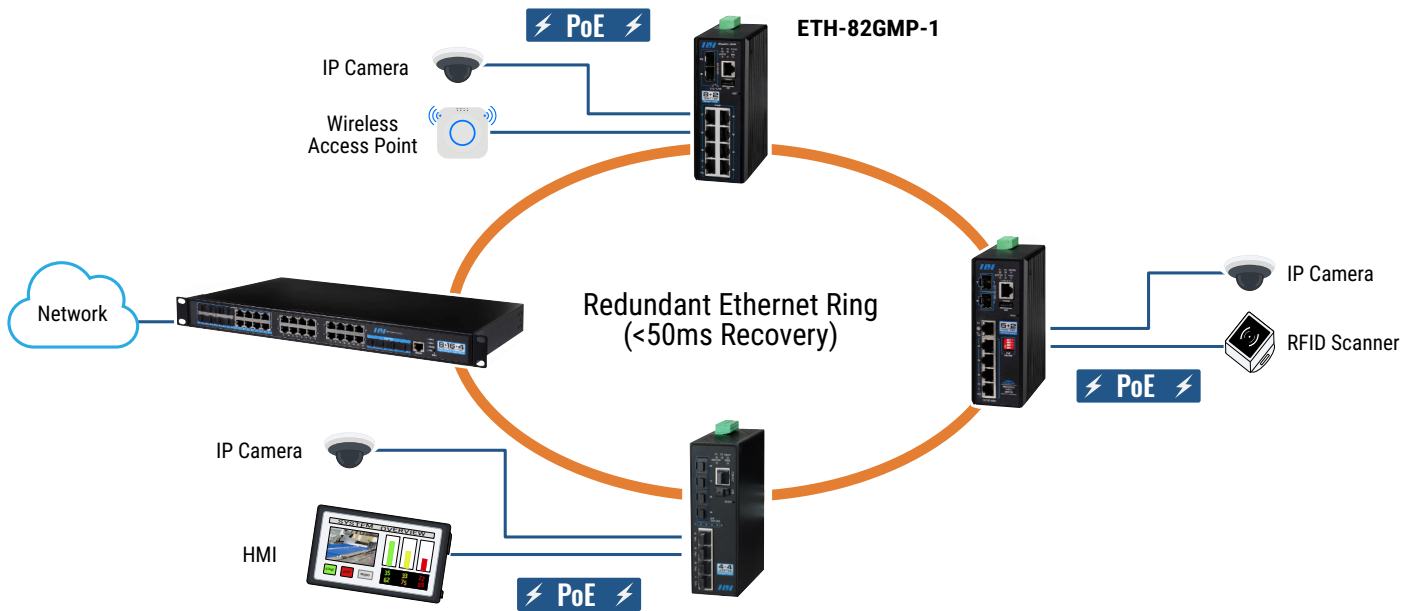


8+2 Managed Gigabit SFP PoE+ Ethernet Switch

### Dimensions



## Application



## Specifications

### Switch Characteristics

**Switching Architecture** Light Layer 3, Managed

**Ethernet Interface** Auto-Negotiation, Full/Half-Duplex, Auto-MDI/MDIX

**Data Process** Store and Forward

|                  |                                                   |                                                               |
|------------------|---------------------------------------------------|---------------------------------------------------------------|
| <b>Standards</b> | IEEE 802.3 10Base-T (Ethernet)                    | IEEE 802.1d STP (Spanning Tree Protocol)                      |
|                  | IEEE 802.3u 100Base-TX (Fast Ethernet)            | IEEE 802.1w RSTP (Rapid Spanning Tree Protocol)               |
|                  | IEEE 802.3ab 1000Base-T (Gigabit Ethernet/Copper) | IEEE 802.1s MSTP (Multiple Spanning Tree Protocol)            |
|                  | IEEE 802.3z 1000Base-X (Gigabit Ethernet/Fiber)   | IEEE 802.1Q Virtual Local Area Network (VLAN)                 |
|                  | IEEE 802.1p Quality of Service (QoS)              | IEEE 802.3af Power over Ethernet (PoE)                        |
|                  | IEEE 802.3at Power over Ethernet Plus (PoE+)      | IEEE 802.1X Network Authentication                            |
|                  | IEEE 802.3ad Link Aggregation (LACP)              | IEEE 802.1AB Link Layer Discovery Protocol (LLDP)             |
|                  | IEEE 802.3x Flow Control                          | ITU-T G.8032/Y.1344 ERPS (Ethernet Ring Protection Switching) |

**Jumbo Frame** 9.6Kbytes

**MAC Table Size** 8k

**Transfer Rate** 14,880pps for Ethernet port

148,800pps for Fast Ethernet port

1,488,000pps for Gigabit Ethernet port

**Network Management**

|                          |                              |                                                                                |
|--------------------------|------------------------------|--------------------------------------------------------------------------------|
| <b>Network Protocols</b> | Network Access/Configuration | FTP, HTTP, HTTPS, IEEE 802.1X, RADIUS, SSHv2, TACACS+, Telnet, TFTP, GVRP, MVR |
|                          | Network Communication        | ICMPv4/v6, IGMPv1/v2/v3, IPv4/v6, MLDv1/v2, Modbus TCP                         |
|                          | Network Discovery            | ARP, DHCPv4/v6, DNS, LLDP, LLDP-MED, NIS, NetBIOS                              |
|                          | Network Monitoring           | CFM (CCP/LT/LB, Ethernet OAM), NTP, RMON, SNMPv1/v2c/v3, Syslog, sFlow         |
|                          | Network Redundancy           | ERPS/G.8032 v1/v2 (<50ms recovery), LACP, Spanning Tree (STP/RSTP/MSTP)        |

|                          |                                                                                                                                                                                                      |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Security Features</b> | AAA, ACEs, ACLs, ARP Inspection, DHCP Snooping, Encryption (SSHv2, TLS/SSL), IP Source Guard, Network Monitoring, Port Mirroring, Port Security, Privileged User Access, System Logging, VCLs, VLANs |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                |                                                                                           |
|--------------------------------|-------------------------------------------------------------------------------------------|
| <b>Light Layer 3 Switching</b> | IPv4/IPv6 Static IP Routing, Inter-VLAN Routing, IP-based ACLs/VCLs, DHCP Option 66/67/82 |
|--------------------------------|-------------------------------------------------------------------------------------------|

|                     |                                                                                                           |
|---------------------|-----------------------------------------------------------------------------------------------------------|
| <b>PoE Features</b> | Persistent PoE, PoE Time Scheduling, PoE Ping Alive, PoE Power Budget Management, PoE Port Prioritization |
|---------------------|-----------------------------------------------------------------------------------------------------------|

|                           |                                                                                           |
|---------------------------|-------------------------------------------------------------------------------------------|
| <b>Power Optimization</b> | IEEE 802.3az Energy-Efficient Ethernet (EEE), ActiPHY, PerfectReach, PoE Power Management |
|---------------------------|-------------------------------------------------------------------------------------------|

|                      |                                                                                               |
|----------------------|-----------------------------------------------------------------------------------------------|
| <b>Configuration</b> | HTTP, HTTPS, Telnet, SSH, CLI, TFTP, SNMPv3, Console Port, USB (configuration backup/restore) |
|----------------------|-----------------------------------------------------------------------------------------------|

|                           |                                                              |
|---------------------------|--------------------------------------------------------------|
| <b>System Diagnostics</b> | Dual Image Protection, PING, PING6, programmable alarm relay |
|---------------------------|--------------------------------------------------------------|

**Interface Characteristics**

|                       |                  |                                                         |
|-----------------------|------------------|---------------------------------------------------------|
| <b>Ethernet Ports</b> | <b>8x Copper</b> | 10/100/1000Base-T(X) - PoE+ (IEEE 802.3af/at-compliant) |
|                       | <b>2x Fiber</b>  | 100/1000Base-X - Dual-rated SFP Ports                   |

|                    |                |                                                                                            |
|--------------------|----------------|--------------------------------------------------------------------------------------------|
| <b>Serial Port</b> | <b>1x RJ45</b> | Rollover Cable Included - 115200 Baud, 8 Data Bits, No Parity, 1 Stop Bit, No Flow Control |
|--------------------|----------------|--------------------------------------------------------------------------------------------|

|                 |                 |                                                               |
|-----------------|-----------------|---------------------------------------------------------------|
| <b>USB Port</b> | <b>1x USB-C</b> | USB 2.0 Host Controller - Switch Configuration Backup/Restore |
|-----------------|-----------------|---------------------------------------------------------------|

|                           |                 |                                                |
|---------------------------|-----------------|------------------------------------------------|
| <b>Programmable Alarm</b> | <b>1x Relay</b> | Normally Closed (SPST) - 24 VDC, 1A resistive" |
|---------------------------|-----------------|------------------------------------------------|

|                              |                             |                                                                          |
|------------------------------|-----------------------------|--------------------------------------------------------------------------|
| <b>LED Status Indicators</b> | <b>System</b>               | Power Input 1 (P1), Power Input 2 (P2), Alarm Relay Status (STATUS)      |
|                              | <b>ERPS Ring</b>            | ERPS Ring Master Node (MASTER), ERPS Ring Active (RING)                  |
|                              | <b>Copper Ethernet Port</b> | Ethernet Link/Activity (Top LED), Active PoE Output (Bottom LED)         |
|                              | <b>SFP Port</b>             | Ethernet Link/Activity (Flashing), 100Mbps Link (Amber), 1G Link (Green) |

**Power Requirements**

|                    |                                      |
|--------------------|--------------------------------------|
| <b>Power Input</b> | Dual 12-55VDC redundant power inputs |
|--------------------|--------------------------------------|

|                         |                                      |
|-------------------------|--------------------------------------|
| <b>Power Connection</b> | 1 removable 6-contact terminal block |
|-------------------------|--------------------------------------|

|                         |                                   |
|-------------------------|-----------------------------------|
| <b>Power Protection</b> | Over Current, Polarity Protection |
|-------------------------|-----------------------------------|

|                               |                                    |
|-------------------------------|------------------------------------|
| <b>Max. Power Consumption</b> | 255 Watts (assuming full PoE load) |
|-------------------------------|------------------------------------|

|                              |                                      |
|------------------------------|--------------------------------------|
| <b>Max. PoE Power Budget</b> | 90W@12VDC, 180W@24VDC, 240W@48-55VDC |
|------------------------------|--------------------------------------|

|                        |                         |
|------------------------|-------------------------|
| <b>Max. PoE Output</b> | 30 Watts (per PoE port) |
|------------------------|-------------------------|

**Physical Characteristics**

|                        |                                                                                                  |
|------------------------|--------------------------------------------------------------------------------------------------|
| <b>Construction</b>    | Metal, IP30 protection                                                                           |
| <b>Case Dimensions</b> | 2.13" (W) x 3.90" (D) x 5.59" (H), (54mm x 99mm x 142mm) *Not including dust caps or DIN bracket |
| <b>Weight</b>          | 2.07 lbs. / 0.94 kg (Unit Weight)                                                                |
|                        | 2.87 lbs. / 1.30 kg (Shipping Weight)                                                            |
| <b>Installation</b>    | Standard DIN rail (TS-35) or wall mount *Wall mount brackets included                            |

**Environmental**

|                              |                                |
|------------------------------|--------------------------------|
| <b>Operating Temperature</b> | -40°C to 75°C (-40°F to 167°F) |
| <b>Storage Temperature</b>   | -40°C to 85°C (-40°F to 185°F) |
| <b>Operating Humidity</b>    | 5 to 95% (Non-Condensing)      |

**Regulatory**

|                          |                                                                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>EMI</b>               | FCC Part 15 Subpart B Class A, CE EN55035/EN61000-6-2 Class A, CE EN55032/EN61000-6-4 Class A                                     |
| <b>EMS</b>               | IEC61000-4-2 (ESD), IEC61000-4-3 (RS), IEC61000-4-4 (EFT), IEC61000-4-5 (Surge), IEC61000-4-6 (CS), IEC61000-4-8 (Magnetic Field) |
| <b>Stability Testing</b> | IEC60068-2-6 (Vibration), IEC60068-2-27 (Shock), IEC60068-2-32 (Free Fall)                                                        |
| <b>Compliance</b>        | UL Listed: UL 61010-1 and UL 61010-2-201, File Number: E544369                                                                    |
|                          | FCC Class A, REACH, CE, RoHS, NEMA TS2, TAA, NDAA                                                                                 |
| <b>MTBF</b>              | 442,020 hrs. Telcordia SR-332, Issue 3, GB, 25°C                                                                                  |
| <b>Warranty</b>          | Limited 5-Year Visit <a href="http://www.fiberopticlink.com">www.fiberopticlink.com</a> for warranty details                      |

## Ordering Information

| Description                                                                                 | Part Number        |
|---------------------------------------------------------------------------------------------|--------------------|
| 8+2 Gigabit PoE+ Managed Industrial Ethernet Switch, 2 Dual Rate SFP Slots, Power: 12-48VDC | <b>ETH-82GMP-1</b> |

## Contact

|                       |                                                                      |              |
|-----------------------|----------------------------------------------------------------------|--------------|
| <b>By Mail:</b>       | ATTN: Sales                                                          |              |
|                       | RLH Industries, Inc.                                                 |              |
|                       | 936 N. Main Street                                                   |              |
|                       | Orange, CA 92867                                                     |              |
| <b>By Phone:</b>      | Local                                                                | 714-532-1672 |
| <b>Sales/Service:</b> | Toll Free                                                            | 800-877-1672 |
| <b>By Email:</b>      | <a href="mailto:info@fiberopticlink.com">info@fiberopticlink.com</a> |              |
| <b>By Fax:</b>        | 714-532-1885                                                         |              |

## Support

|                  |                                                                            |
|------------------|----------------------------------------------------------------------------|
| <b>By Email:</b> | <a href="mailto:support@fiberopticlink.com">support@fiberopticlink.com</a> |
| <b>By Phone:</b> | Toll Free 855-754-2497                                                     |