



HGW-802SM-SER-PSE

8x 10/100/1000Base-Tx, 2x 1000Base-X SFP and 2x RS485/422/232 serial ports
Managed Industrial PoE Switch

The HGW-802SM-SER-PSE is a 12 port Gigabit Ethernet managed Industrial PoE Switch with 8x10/100/1000Base-Tx, 2x 100/1000Base-X ports and 2x RS485/422/232 serial ports, hardened for extreme operating temperatures: -40 to +75 Celsius. The managed switch supports a variety of Ethernet functions, including STP/RSTP/MSTP and multiple sub-Ring for redundant cabling, layer 2 Ethernet IGMP, VLAN, QoS, Security, bandwidth control, port mirroring and is housed in IP40 rated rugged metal housing designed to operate in difficult conditions, including mechanically and electrically extreme environments. Model provides a total of 240W of PoE power with up to 30W (IEEE 802.3af/at) on each copper port. All Industrial switches have strong surge protection (4kV~8kV) per port, depending on models and strict compliance with IEC and EN standards for industrial grade equipment.

Features

- redundant DC input block 48-56V
- Extreme operating temperature: -40 to +75 Celsius
- Rugged IP40 rated metal casing with DIN rail bracket
- 8x 10/100/1000Base-T RJ-45 and 2x 100/1000Base-X SFP Fiber
- Reversed power polarity protection
- STP, RSTP, MSTP for redundant cabling
- DHCP Server/Client/Relay/Snooping
- QoS, CoS, bandwidth control for Ingress and Egress, Storm Control
- 2x RS485/422/232 IP server serial ports, 115200kbps
- Dynamic IEEE 802.3ad LACP Link Aggregation, Static Link Aggregation
- Supports 6kV surge protection per port on all TP ports
- 240W total PoE power budget: 90W 802.3af/at/bt per port
- Supports IEEE 802.1Q Tag VLAN and port VLAN
- IGMP snooping V1/V2/V3, IGMP Filtering/Throttling, IGMP query
- Port based and MAC based IEEE802.1X, RADIUS, ACL
- Software upgrade via TFTP and HTTP
- Port mirroring, System log, DNS, SNMP, LLDP
- Web based management, SNMP v1/v2, Telnet
- DIP sw settings for RSTP, VLAN and fiber port speed

Specifications

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|--|--|---------------------------------|--|
| IEEE Standard | IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX and 100Base-FX Fast Ethernet IEEE 802.3ab 1000Base-T and 1000Base-X Gigabit Eth. IEEE 802.3x Flow Control and Back Pressure | Alarm Relay Contact | Relay outputs with current carrying capacity of 1 A @24VDC, NC |
| Switch Architecture | Back-plane (Switching Fabric): 20 Gbps | Removable Terminal Block | Provide 2 Redundant power, Alarm relay contact, 6 Pin |
| Serial interfaces | 2x 5pin block RS485/422/232, integrated IP serial server | Operating Temperature | -40 ~ 75°C |
| Data Processing | Store and Forward | Operating Humidity | 5% to 95% (Non-condensing) |
| Flow Control | IEEE 802.3x flow control, back pressure flow control | Storage Temperature | -40 ~ 85°C |
| Provides Broadcast Storm Protection | Present | Housing | Rugged Metal, IP40 Protection |
| MAC Address Table | 4K | Dimensions | 108 x 49 x 138mm (D x W x H) |
| Packet Buffer Size | 2MB | Weight | 0.65kg |
| Ports | 8 x RJ-45 10/100/1000Base-Tx 2 x 100/1000Base-X SFP slot 10/100/1000Base-TX auto negotiation speed, Auto MDI/MDI-X function, Full/Half duplex | Installation Mounting | DIN Rail mounting or wall mounting |
| Network Cable | 10Base-T: 2-pair UTP/STP Cat.5 cable 100Base-TX: 2-pair UTP/STP Cat. 5 cable 1000Base-T: 4-pair UTP/STP Cat. 5e cable EIA/TIA-568 100-ohm (100m) | EMI | FCC Part 15 Subpart B Class A, CE EN 55022 Class A EN61000-6-4 – Emission for industrial environment |
| Protocols | CSMA/CD | EMS | EN61000-6-2 – Immunity for Industrial environment EN61000-4-2 (ESD) Level 3, Criteria B EN61000-4-3 (RS) Level 3, Criteria A EN61000-4-4 (Burst) Level 3, Criteria A EN61000-4-5 (Surge) Level 3, Criteria B EN61000-4-6 (CS) Level 3, Criteria A EN61000-4-8 (Magnetic Field) Level 3, Criteria A |
| LED | Per unit: PWR (Green) LNK/ACT (Green - Fiber port status and activity) Per port: Link/Active (Green), Speed/100 (Yellow) | Traffic control | NEMA-TS2 |
| Reverse Polarity Protection | Present | Rail Traffic | EN50121-4 |
| Overload Current Protection | Present | Shock | IEC 60068-2-27 |
| Power Supply | Redundant Dual DC48V Input power (Removable Block) | Freefall | IEC 60068-2-32 |
| PoE Specs | PoE+ PSE device: IEEE 802.3af/at, up to 30W per port 240W total PoE budget | Vibration | IEC 60068-2-6 |
| Power Consumption | <250W, PoE available budget is 240W | MTBF | 120,000Hrs |
| | | Warranty | 3 years |

Software Specifications

Topology

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| VLAN | IEEE 802.1q VLAN, up to 4094 IEEE 802.1q VLAN, up to 4094 Groups IEEE 802.1ad Q-in-Q MAC-based VLAN, up to 256 entries |
| Link Aggregation (Port Trunk) | Static (Hash with SA, DA, IP, TCP/UDP port), up to 5 trunk group Dynamic (IEEE 802.3ad LACP), up to 5 trunk group |
| Spanning Tree | IEEE802.1d STP IEEE802.1w RSTP IEEE802.1s MSTP |
| Multiple Ring | supports Sub-Ring type Recovery time <10ms The maximum number of devices allowed in a Ring supported ring is 250. |
| Loop Protection | Present |

QoS Features

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| Class of Service | IEEE802.1p 8 active priorities queues for per port |
| Traffic Classification | IEEE802.1p based CoS |
| Classification QoS | IP Precedence based CoS IP DSCP based CoS QCL(QoS Control List): Frame Type, Source/Destination MAC, VLAN ID, PCP, DEI QCE(QoS Control Entry): Protocol, Source IP, IP Fragment, DSCP, TCP/UDP port number |
| Bandwidth Control for Ingress | Rate in steps :1 kbps / Mbps Range : 100 kbps to 1Gbps Rate Unit : bit |
| Bandwidth Control for Egress | Rate in steps : 1 kbps / Mbps Range : 100 kbps to 1Gbps Rate Unit : bit Per queue / Per port shaper |
| Storm Control | for Unicast, Broadcast, Multicast |

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| DHCP | Server, Client, Relay, Snooping |
| IP Source Guard | |
| Port Mirroring | |
| Event Syslog | Syslog server (RFC3164) (Support 1 server) |
| Warning Message | System log, alarm relay |
| DNS | Client, Proxy |
| NTP | |
| LLDP (IEEE 802.1ab) | Link Layer Discovery Protocol LLDP-MED |

IP Multicasting Features

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| IGMP / MLD Snooping | IGMP Snooping v1, v2, v3 / MLD Snooping v1, v2 Port Filtering Profile Throttling, Fast Leave Maximum Multicast Group : up to 1022 entries Query / Static Router Port |
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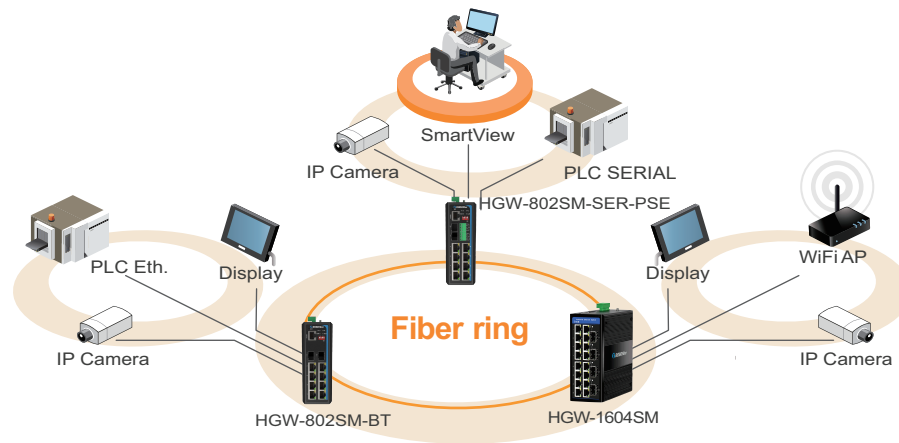
Security Features

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| IEEE 802.1X | Port-Based MAC-Based |
| ACL | Number of rules : up to 256 entries for L2 / L3 / L4 |
| RADIUS authentication & accounting | |
| User Name | Local Authentication |
| Password | Remote Authentication (via RADIUS) |
| Authentication | |
| Management Interface Access | Web, Telnet / RS-232 console |
| Filtering | |

Management Features

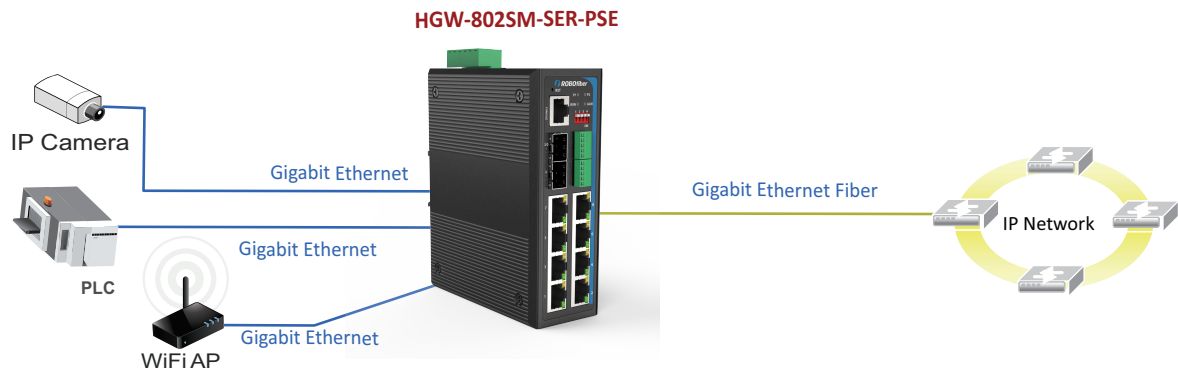
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| Web Based Management | |
| Telnet | Server |
| SNMP | V1, V2 |
| SW & Configuration Upgrade | TFTP, HTTP firmware upgrade function |

Fiber Ring Application



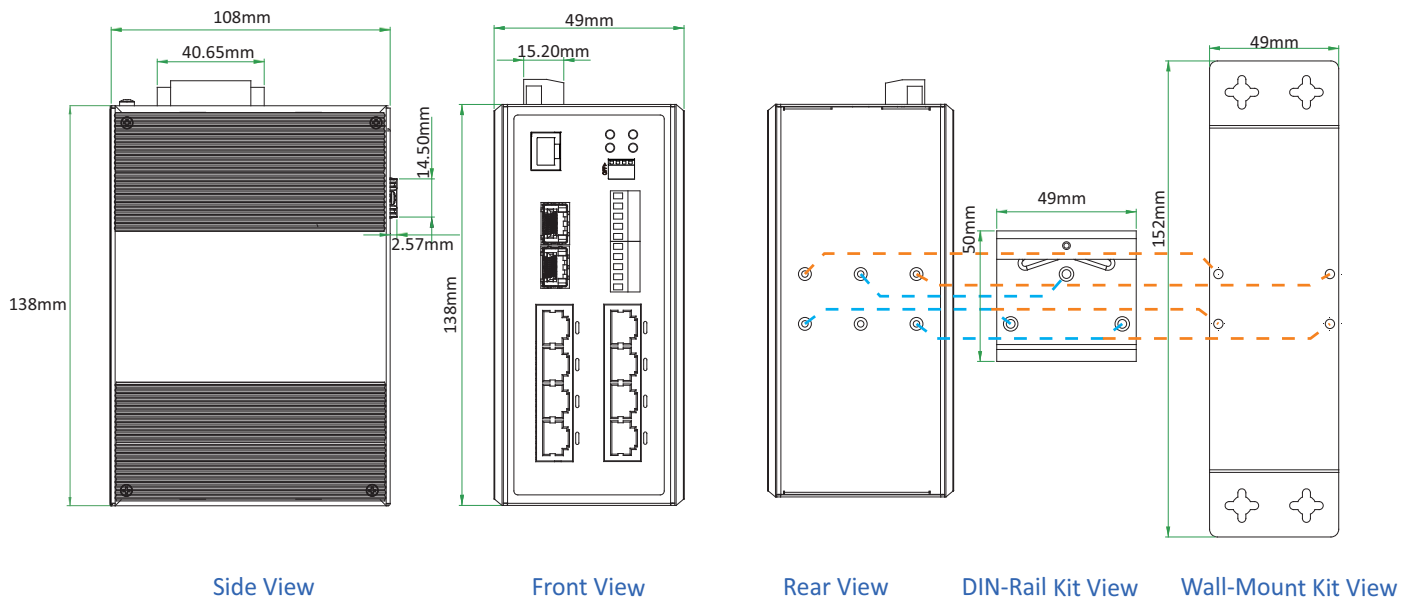
HGW-802SM-SER-PSE Gigabit Ethernet Managed PoE Switch Application

Fiber Access Application



HGW-802SM-SER-PSE Gigabit Ethernet Managed PoE Switch Application

Dimensions



Ordering Information

| Model Name | Description |
|-------------------|--|
| HGW-802SM-SER-PSE | 8x 10/100/1000Base-Tx, 2x 100/1000Base-X SFP Managed Industrial PoE Switch Extreme Temp. (-40~75 Celsius), 240W for PoE/PoE+ 2x RS485/422/232 serial ports accessible via web/SNMP settings on the switch (115,200bps max. rate) |