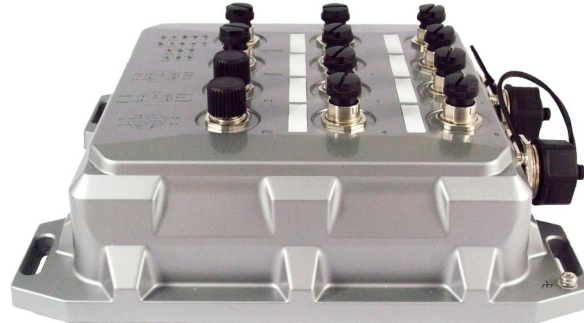




SWMP8510-HR SERIES

WATERPROOF MANAGED GIGABIT POE SWITCH



Description

CXR SWMP8510-HR IP67-rated Railway-compliant Ethernet switch is the best solution for providing high-speed Gigabit connectivity in bayside or carriage side Railway applications. Its rugged, aluminum enclosure can effectively protect the Switch core in any environment.

The 8-M12 Connectors Gigabit ports can supply up to 30W of PoE Power (802.3af or 802.3at) to your PoE device providing an overall maximum budget of 240W. This makes **SWMP8510-HR** the ideal solution for on-board or off-board surveillance by simplifying the wiring where it's difficult, risky and expensive to introduce new elements.

Two Gigabit SFP slots provide to **SWMP8510-HR** Series the capability to be connected with Fiber-Optics to the backbone without the need of Copper Ethernet repeaters and without any risk of signal degradation.

The embedded redundant-power supply input provides a reliable and failure-proof safety mechanism to minimize down-times. **SWMP8510-HR** comes in either redundant Low-Voltage DC power input (12~57 VDC, 47~57 VDC for PoE models). Each power module, including a Relay-output alarm, uses a S-coding M12 connector that makes **SWMP8510-HR** ideal and simple for engineers setting up a Fault-Alarm System.

To prevent network intrusions, it is necessary to have a good accessing control mechanism that can identify, authenticate and authorize users. **SWMP8510-HR** supports user account, password policy, and authentication interface managements functions that comply with IEC62443 standard.

Its IP67 housing protection, combined with a wide operating temperature of -40 to 75°C and wall mounting capacities make it suitable to most Railway applications in harsh environments or industrial filed applications.

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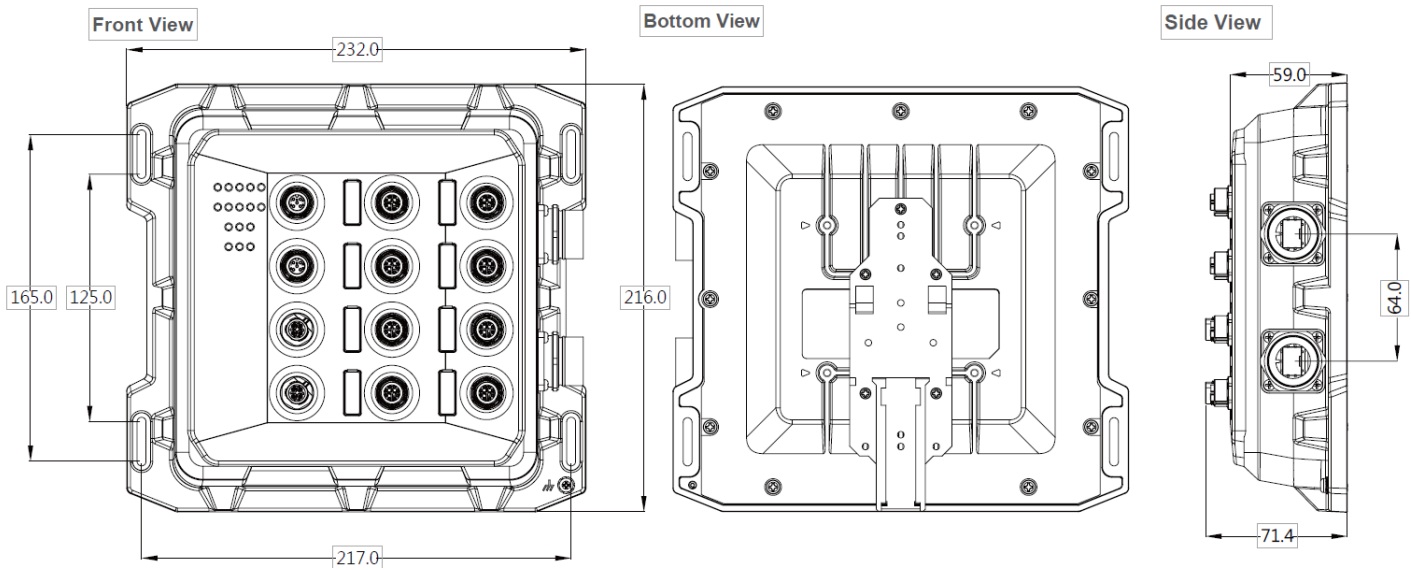
IP67

Ruggedized
aluminium enclosure

HARSH ENVIRON- MENTS

SECURITY

Dimensions & Layout



Specifications

| Switch Properties | |
|---------------------|---------------|
| Priority Queues | 8 |
| VLAN Table | 4096 |
| MAC-Based VLAN | 512 |
| VLAN ID Range | VID 1 to 4094 |
| Trunk Group | 4 |
| Static IGMP Groups | 128 |
| Dynamic IGMP Groups | 256 |
| Mac Table Size | 16k |
| Packet Buffer Size | 1.5MB |
| Jumbo Frame | 9216 Byte |

Specifications

| Ethernet | |
|---|---|
| Standard | IEEE 802.3 for 10BaseT IEEE 802.3u for 100BaseT(X) IEEE 802.3ab for 1000BaseT(X) IEEE 802.3z for 1000Base-X IEEE 802.3af / 802.3at for Power over Ethernet IEEE 802.3x for Flow Control, back pressure flow control IEEE 802.1d-2004 for Spanning Tree Protocol IEEE 802.1w for Rapid Spanning Tree Protocol IEEE 802.1s for Multiple Spanning Tree Protocol IEEE 802.1Q for VLAN Tagging IEEE 802.1p for Class of Service IEEE 802.1X for Authentication IEEE 802.3ad for Port Trunk with LACP IEEE 802.3az for Energy Efficient Ethernet |
| Protocols | IPv4, IPv6, IGMPv1/v2/v3, IGMP Snooping, GARP, GMRP, GVRP, SNMPv1/v2c/v3, SNMP Inform, ICMP, Telnet, SSH, DHCP Server/ Relay/Client, DHCP Option 66/67/82, BootP, RARP, TFTP, NTP Serv- er/Client, SNTP, SMTP, SMTP (Gmail), RMON, HTTP, HTTPS, Syslog, MRP (Client), LLDP, IEEE 1588 PTP V1/V2, IEEE 1588 Hardware End-to-End Transparent Clock, 802.1x, EAP, RADIUS, TACACS+, Mir- ror port, QoS, ACL, Serial Console, U-Ring, ITU-T G.8032 ERPS Ring, STP, RSTP, MSTP, Compatible Ring |
| Automation Profiles | Modbus/TCP status registers |
| SNMP MIB | MIB II, IF-MIB, SNMPv2 MIB, BRIDGE-MIB, RMON MIB Group 1,2,3,9, RFC RFC 1157, RFC 1213, RFC 1215, RFC 1493, RFC 1643, RFC 1757, RFC 2011, RFC 2012, RFC 2013, RFC 2233, RFC 2571, RFC 2742, RFC 2819, RFC 2863, RFC 3411, RFC 3412, RFC 3413, RFC 3414, RFC 3415, RFC 2674 |
| Power | |
| Input Voltage | 12~57 VDC for Non-PoE models 45~57 VDC for 802.3af mode / 51~57 VDC for 802.3at mode |
| Input Current/Power (System) | 12 - 57 VAC, 1.19A max. , 14.28W (For Non-PoE Models) |
| Input Current (with PoE, full loading) | 45 - 57 VDC, 3.08A max. , 138.6W (PoE 802.3af Mode, 8-ports) 51 - 57 VDC, 5.03A max. , 256.53W (PoE 802.3at Mode. 8-ports) |
| Power input | 2 x S-Coding M12 connectors (4 Pin) |
| Reverse Polarity Protection | Yes |

Specifications

| Interfaces | |
|-----------------------------------|--|
| LED Indicators | PWR1, PWR2, Alarm, Ethernet Act/Link, SFP Link, PoE, Ring |
| Ethernet Ports | 8 10/100/1000BASE-T(X) auto negotiation speed –M12 connector |
| Console | RS232 (A-coding M12 connector) |
| Relay Output | 2 relay outputs with current carrying capacity of 1A @ 24 VDC (through A-coding M12 connector) |
| Fiber Optics Ports | Two 1000BASE-X SFP slots |
| Physical Characteristics | |
| Housing | IP67 protection according to EN 60529 |
| Dimension (W x H x D) (mm) | 216 x 232 x 72 |
| Weight | 2kg |
| Installation | Wall-mount (Optional Din-Rail Kit) |
| Environmental limits | |
| Operating Temperature | -40 °C~75 °C (-40 °F~167 °F) |
| Storage Temperature | -40 °C~85 °C (-40 °F~185 °F) |
| Ambient Relative Humidity | 5%~95%, 55 °C (Non-condensing) |

802.3af PoE output starts from 43 VDC input and 802.3at output starts from 51 VDC input.

Regulatory Approvals

| Regulatory Approvals | |
|----------------------|--|
| Safety | EN 60950-1:2006, UL/IEC(CB) 61010-2-201 |
| EMC | FCC Part 15, Subpart B, Class A EN 55032, EN 55024, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 61000-6-4 |
| Rail Traffic | EN50155, EN50121-4, IEC60571, EN45545-2 |

| Test | Item | Value | Level | |
|------------------|--|-------------------|----------------------|---|
| IEC 61000-4-2 | ESD | Contact Discharge | ±8KV | 4 |
| | | Air Discharge | ±15KV | 4 |
| IEC 61000-4-3 | RS | Enclosure Port | 10 (V/m), 80-1000MHz | 3 |
| IEC 61000-4-4 | EFT | AC Power Port | ±2.0KV | 3 |
| | | DC Power Port | ±2.0KV | 3 |
| | | Signal Port | ±2.0KV | 4 |
| IEC 61000-4-5 | Surge | AC Power Port | Line-to Line ±1.0KV | 3 |
| | | AC Power Port | Line-to Earth ±2.0KV | 3 |
| | | DC Power Port | Line-to Line ±1.0KV | 3 |
| | | DC Power Port | Line-to Earth ±2.0KV | 3 |
| | | Signal Port | Line-to Earth±2.0KV | 3 |
| IEC 61000-4-6 | CS | 0.15-80MHz | 10V rms | 3 |
| IEC 61000-4-8 | PfMF | (Enclosure) | AC 50H 10A/m | 3 |
| IEC 61000-4-11 | DIP | AC Power Port | - | - |
| Shock | MIL-STD-810G Method 516.5 | | | |
| Drop | MIL-STD-810F Method 516.5 | | | |
| Vibration | MIL-STD-810F Method 514.5 C-1 & C-2 | | | |
| RoHS | Yes | | | |
| MTBF | 18.53 years (mean avg. per model; MIL-HDBK-217F-based prediction) | | | |
| Warranty | 2 years | | | |

Ordering information

| Model | Description |
|----------------------------|---|
| SWMP-8510-HR-8PM-2SFP | Waterproof Managed Gigabit Switch 8x M12 Ports, 2 SFP Ports |
| SWMP-8510-HR-4PM-4TPM-2SFP | Waterproof Managed Gigabit PoE Switch 8x M12 Ports, 2 SFP Ports and 4 PoE ports |
| SWMP-8510-HR-8TPM-2SFP | Waterproof Managed Gigabit SPoE switch 8x M12 Ports, 2 SFP Ports and 8 PoE ports |
| SWMP-8510-HR-8PM-2SFP-HV | Switch Durcis IP67 Railway waterproof. 8x10/100/1000BTX M12, 2x 100/1000FX SFP. -40 à +75 °C. Version High Voltage : Alimentation 50-145VDC. Montage Mural. (Rail-Din en option) |
| Accessories | Description |
| DIN-RAIL-KIT-SWMP | DIN rail kit for SWMP switch |
| WALL-KIT-SWMP | VESA type wall support kit. |
| SWMP-M12-PLAST-CACHE | M12 plastic cap for unused port. |
| SWMP-M12-METAL-CACHE | M12 metal cap for unused port. |
| SWMP-M12-SCREW-PLAST-CACHE | Plastic screw cap for unused M12 port. |
| SWMP-M12-SCREW-METAL-CACHE | Metal screw cap for unused M12 port. |
| SWMP85-RJDB9 | Local console cable RJ45 to DB9 male, length 90cm |



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