10*GE Copper EN50155 Managed Industrial Switch

Product Overview

The X91010-M series is a 10-port full Gigabit Managed Industrial Ethernet Switch specially designed for rail transportation. The products meet the EN50155 industry standard requirements. Its PoE version complies with the IEEE 802.3af/at protocol standards. The Ethernet interface adopts a sturdy and reliable M12 format, making it suitable for scenarios with severe vibrations and impacts. The product offers 10 Gigabit M12 ports. This series of switches has a wide working temperature range of -40°C to +80°C and features an IP65/IP68-rated shell and LED indicators, making it a plug-and-play industrial-grade device. With its exceptional waterproof performance and ruggedness, it can adapt to various harsh environments, providing users with a reliable and convenient solution for networking their Ethernet devices. Adopting a wall-mount installation method, it can meet the needs of different application sites.

The management system supports various network protocols and industry standards, such as X-Ring, ERPS/RSTP, 802.1Q VLAN, QoS function, PoE configuration and management, DHCP Client, IGMP static multicast function, port aggregation, port mirroring, and more. It has comprehensive management functions, supporting port configuration, port statistics, quick configuration, online upgrades, etc. The management system interface is user-friendly and straightforward, providing a good user experience.

The hardware adopts a fan-less, low power consumption, wide temperature and wide voltage design. After undergoing rigorous testing in compliance with industry standards, it can adapt to industrial site environments with strict EMC requirements and is widely applicable to on-board PIS, train control, CCTV, video surveillance, and other rail transit subsystems.

X91010-M: 10*GE Copper EN50155 Managed Industrial Switch
Size: 155*121*30 mm

Product Features

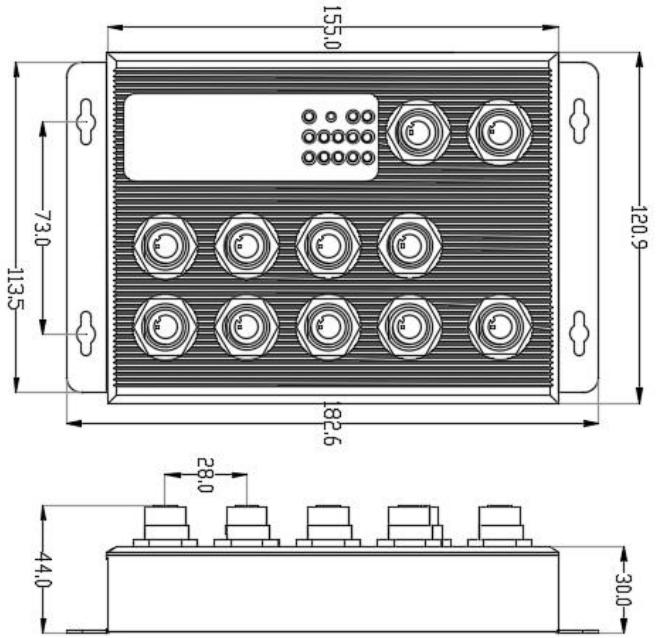
- ✧ 10*10/100/1000Base-T M12 copper ports
- ✧ 8 downlink Gigabit copper ports support PoE+, compatible with IEEE 802.3af/at standards
- ✧ Each PoE port (PSE) can supply the power up to 30W/port
- ✧ Supports ERPS/RSTP & X-Ring Self-healing Ring
- ✧ Supports IEEE 802.1X, supports secure access management, enhancing network security
- ✧ Provides standalone WEB management, supports SNMP backend management
- ✧ Lightning protection: 6KV common mode/2KV differential mode for network port, 6KV common mode/4KV differential mode for power
- ✧ Electrostatic protection: 6KV contact discharge, 15KV air discharge
- ✧ Can detect the PoE mode of the powered device and can intelligently manage the PD, such as performing a reboot
- ✧ Can monitor the working parameters of IP cameras, such as brand, model, and pixels, for easy on-site installation and debugging
- ✧ Can work in the temperature range -40°C ~ +80°C, there is also the ultra low working temperature version which allows working temperature up to -60°C.

Product Specifications

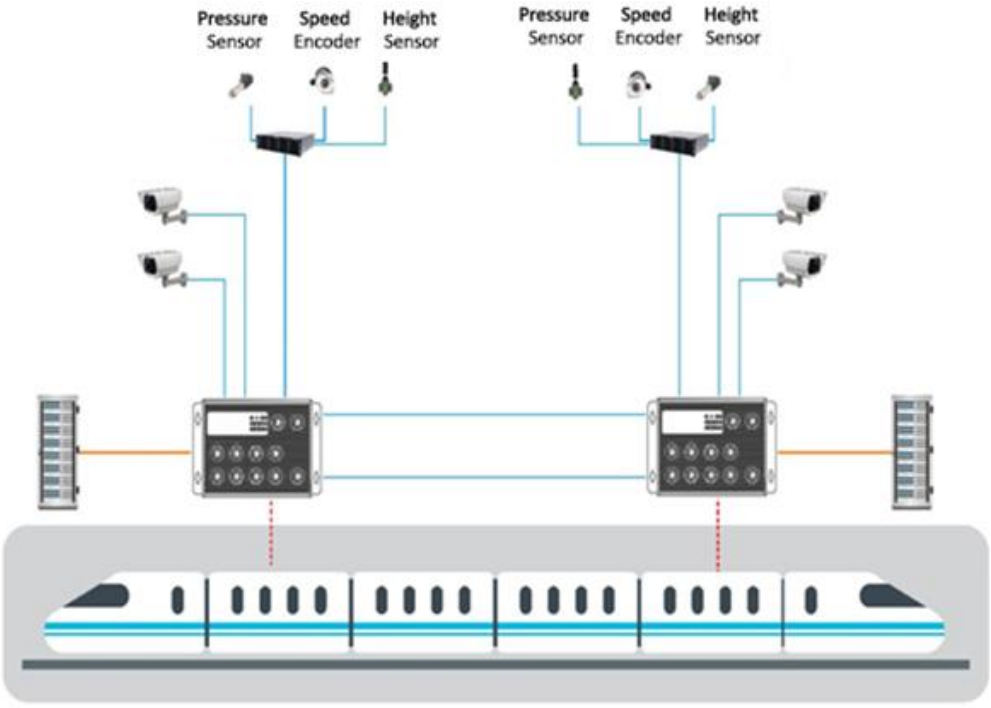
Series	X91010-M	
Ports	10 * 10/100/1000 Base-T(X) M12 copper ports Automatic detection, full/half duplex MDI/MDI-X auto-negotiation	
	1 * M12 power port	
Ethernet Standards	IEEE 802.3: 10Base-T Ethernet; IEEE 802.3u: 100Base-TX Fast Ethernet; IEEE 802.3ab: 1000Base-T Gigabit Ethernet; IEEE 802.3x: follow control	
Certification	EN50155, CE, RoHs, ISO9001:2008	
MTBF	300,000 hours	
Warranty	3 years	
Industry Standards	EMI	FCC Part 15 Subpart B Class A,EN 55022 Class A
	EMS	IEC(EN)61000-4-2(ESD): ± 8kV touch discharge, ± 15kV air discharge
		IEC(EN)61000-4-3(RS): 10V/m(80～1000MHz)
		IEC(EN)61000-4-4(EFT) : power cable: ±4kV Data cable: ±2kV;
		IEC(EN)61000-4-5(Surge) : power cable: ±2kV CM//±4kV DM ; Data cable: ±4kV
		IEC(EN)61000-4-6(Radio frequency conduction) : 3V(10kHz～150kHz),10V(150kHz～80MHz)
		IEC(EN)61000-4-16(Common-mode conduction) : 30V cont. 300V,1s

		IEC(EN)61000-4-8
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
	Vibration	IEC 60068-2-6
Switching Parameters		
Transmission Method	Store and forward	
Backplane Bandwidth	20G	
MAC capacity	16K	
Switching Latency	<10μs	
Buffer memory	2 Mbit	
Power Consumption	<5W (non-PoE)	
Working Temperature		
Working Temperature	-40~80°C(-40~180°F)	
Storage Temperature	-40~85°C(-40~185°F)	
Relative Humidity	5%~95% without condensation	
Power Parameters		
Input Voltage	DC12-52V (Dual redundant power supply, DC48V For PoE)	
Access Terminal	M12 port	
Power Protection	Supports dual power supply redundancy Supports built-in overcurrent protection of 4.0A Supports reverse polarity protection	
Mechanical Features		
Shell	IP65 or IP68(depends on the model), aluminum enclosure	
Installation Method	1U rack, wall mounted	
Cooling Method	Natural cooling, fanless	
Weight	0.64kg	
Size	155 x 121 x 30 mm	
LED Indication		
Power Indicator	PWR	
Interface Indicator	Copper ports(Link/ACT), Run, PoE	

Appearance and Dimension



Application Diagram



Ordering Information

Model	Description	Levels of Protection	Working Temperature
X91010-M	10*10/100/1000BASE-T M12 copper ports, L2 managed type, ERPS/RSTP & X-Ring, monitor IP-Camera, SNMP, DC12~52V input, M12 connector, industrial grade wall mounted, IP65, aluminum shell	IP65	-40 ~ 80˚C
X91010P-M	10*10/100/1000BASE-T M12 copper ports, L2 managed type, ERPS/RSTP & X-Ring, monitor IP-Camera, SNMP, PoE+, DC48V input, M12 connector, industrial grade wall mounted, IP65, aluminum shell	IP65	-40 ~ 80˚C
X91010-MT	10*10/100/1000BASE-T M12 copper ports, L2 managed type, ERPS/RSTP & X-Ring, monitor IP-Camera, SNMP, DC12~52V input, M12 connector, industrial grade wall mounted, IP68, aluminum shell	IP68	-40 ~ 80˚C
X91010P-MT	10*10/100/1000BASE-T M12 copper ports, L2 managed type, ERPS/RSTP & X-Ring, monitor IP-Camera, SNMP, PoE+, DC48V input, M12 connector, industrial grade wall mounted, IP68, aluminum shell	IP68	-40 ~ 80˚C

Manufacturer Information

Company: Shenzhen Xallcom Technology Co., Ltd.

Address: 2/F, No.211 of Niucheng Road, Xili Street, Nanshan District, Shenzhen, China

Website: www.xallcom.com

Tel.: +86 755-8605 9338 **Fax:** +86 755-8605 9328