Industrial Un-Managed Booster PoE Switch

JetNet 3808G-M12

The JetNet 3808G-M12 is a new generation Power-over-Ethernet Switch with rugged M12 connectors. It is designed for IP Surveillance in harsh environments such as Train, MRT, and LRV systems and is equipped with 7 PoE/PSE Fast Ethernet ports and 1 PoE/PSE Gigabit interface with device fault bypass function. The PSE system enables 30W high power PoE function and is compliance with IEEE 802.3af/at standard. The switch system adapts to vehicle/railway electrical power system and supports several types of input voltage rating to correspond with different train electrical power systems. With multi-backup features, the JetNet 3808G-M12 is capable to construct IP Surveillance network on the train, ensure passenger's safety and improve train network reliability.

Heavy Industry | +75 -40 Wide Temp | Gigabit | EN50121-4 | EN50155 | E13 E-Mark

Features

- 1 Gigabit/PSE M12 X-code, 7 100M/PSE M12 D-code, M12-A Power
- Power feeding 15.4W/30W, compliance with IEEE 802.3af/at
- Power System design with 120W PoE budget and compliance with safety requirement
- Rugged M12 Ethernet, power connectors for vibration and shock application
- IEEE 802.1p Class of Service (CoS) for packet forwarding precedence
- 10K bytes Jumbo Frame for large file transmission
- Broadcast storm packet filtering
- Embedded DC 54V Booster
- Railway Standards: EN50155, EN50121-3-2, EN50121-4
- Traffic Standard: E-mark E13
- -40~75℃ operating temperature

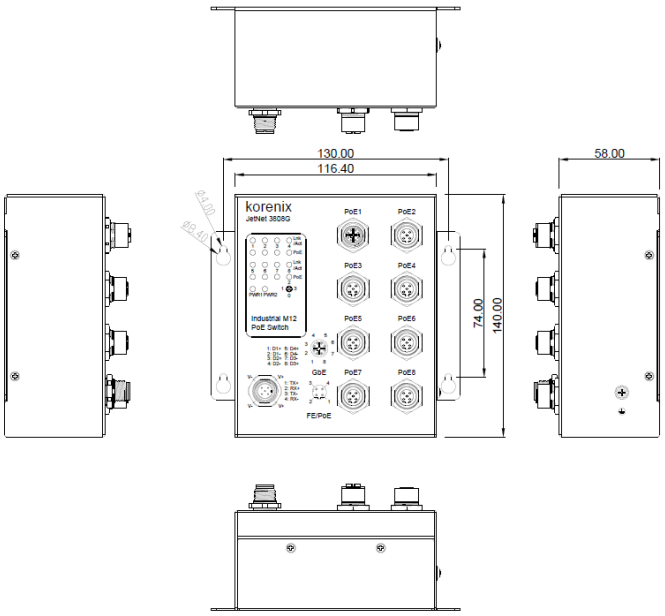
Specification

Technology	
Standard	IEEE 802.3u 10Base-T Ethernet IEEE 802.3u 100Base-TX Fast Ethernet IEEE 802.3ab 1000Base-TX Gigabit Ethernet IEEE 802.3af Power over Ethernet IEEE 802.3at High Power PoE with 2-Event classification IEEE 802.3x Flow control and back-pressure
Network Performance	
Switch Technology	Store and Forward technology with 3.4Gbps non-blocking
System Throughput	23.8Mega packets per second, 64Bytes packet length
Transfer packet size	64Bytes ~1518Bytes
MAC Address	16K MAC address table
Packet Buffer	2 Mega bits shared packet buffer
Broadcast storm control:	Default enabled Traffic threshold: 25M bps@1000Mbps; 10M bps@100Mbps; 1M bps@10 Mbps
Jumbo frame	Up to 10K Bytes
Transfer performance	14,880 pps @10Mbps 148,800 pps @100Mbps 1,488,100 pps @1000Mbps
Class of Service	Default Enabled Compliance with IEEE802.1p class of service with Tag Based Priority rule. Each switch port provides 4 priority queues as following - 8 (Higher) : 4(High) : 2(Low) :1(Lower) scheduling. The Tag Priority ID as following: Highest (6,7), High (4,5), Low (0,3), Lowest (1,2)
Power over Ethernet	
Power over Ethernet	IEEE 802.3af/at, End-Span wiring architecture
PoE operating mode	Auto Mode: IEEE 802.3af/at behaviors with IEEE 802.3at 2-Event for high power IEEE 802.3at 2-event PD device
PoE forwarding conductor	M12 X-Code (Port 1): V+(1,2), V- (3,4) M12 D-Code (Port 2~8): V+(1,3), V- (2,4)
Power forwarding capability	IEEE 802.3af:15.4 W, IEEE802.3at:30W
PoE System Power Budget	Power Budget Reserve by PD declaration. The power budget control system will reserve power for connected PD device. Once the latest PD device claimed power over the system surplus power budget, the highest port of PoE will not be active due to port order mechanism. System Power Budget: 120Watts at DC 24V/ 60 Watts at DC 12V
Interface	
Enclosure Port	• 1000 Base-T/Gigabit Ethernet (Port #1): 1 x M12-X Code 8-pin Female • 10/100 Base-T/TX Fast Ethernet (Port #2~#8): 7 x M12-D Code 4-pin Female • M12-X (Conductor #): (#1) 0P(D1+)/PoE V+, (#2) 0N(D1-)/PoE V+, (#3)1P(D2+)/PoE V- , (#4)1N(D2-)/PoE V-, (#5)3P(D4+) (#6)3N(D4-), (#7) 2N (D3-), (#8) 2P (D3+) • Power: M12 A-Code 5-pin Male
LED Indicators	Port 1~8: Link (Green on)/Activity (Green Blinking) PoE Detection (Amber Blinking)/ PoE power forwarding (IEEE 802.3af/at-Amber on) Power: System Power Ready (Green on), Ignition function Activity (Green Blinking)
Power Requirement	
System Power	Input voltage: DC 12V or DC 24V, variation range DC 9- 36 V
Power consumption	6 Watts @ DC 24V without PD loading 120 Watts @ DC 24V max.
Power Ignition Management	
	The count-down timer supports 4 scenarios which can be configured by Rotary-switch. The detail shows in user manual.

Mechanical	
Installation	Wall Mounting
Enclosure Material	Steel Metal with textured paint
Ingress Protection	IP-41 (IP54 available by request)
Dimension (mm)	116 mm (H) x 140 mm (W) x 58 mm (D) (without wall mount clip)
Weight (Kg)	1.105
Environmental	
Operating Environment	-40°C~75°C (120 Watts PoE/PD Loading), 0~90%, Non-condensing
Storage Environment	-40°C~85°C, 0~90% Non-Condesing
Hi-Pot	AC 1KV for ports-power, power-case
Approvals	
Railway Standard	EN50155, EN 50121-4, EN50121-3-2
Traffic	E-mark E13 10R-05 14802
EMC	EMI: EN50121-3-2, FCC Class A, IEC/EN61000-6-4 EMS:EN50121-3-2/EN50121-1, IEC/EN61000-6-2 IEC/EN61000-4-2, IEC/EN61000-4-3, IEC/EN61000-4-4, IEC/EN61000-4-5, IEC/EN61000-4-6, IEC/EN61000-4-8, IEC/EN61000-4-9
Variation/Shock	IEC 61373
Free Fall	IEC 60068-2-32 with package Note-1
MTBF (hrs)	379,940
Warranty	5 Years

Note-1: Korenix's internal testing

Dimension (mm)



Ordering Information

Model Name	Description
JetNet 3808G-M12	Industrial Un-Managed Booster PoE Switch 7 PoE/PSE Fast Ethernet ports and 1 PoE/PSE Gigabit Port
	Includes: • JetNet 3808G-M12 X 1 • Quick Installation Guide X 1 Note: Please download User Manual from Korenix website