

## Industrial Managed PoE Switch

# JetNet 5208GP/JetNet 5208GP-2F Series



Korenix JetNet 5208GP Series, the DIN-Rail type industrial Gigabit Managed PoE Switch. JetNet 5208GP is the first industrial ethernet switch compliance with IEEE 802.3af/at/bt, each ethernet port can max supports 90W for PD, and total budget up to 180W \*Note.

JetNet 5208GP series is designed for operating reliably under harsh environments, it supports one alarm relay to indicate fault conditions when any link or power failure happens, as a result, users can quickly handle the emergency and shorten the failover time. With IEC 61000-6-2 / 61000-6-4 Heavy Industrial EMC and Trackside certification design, including robust enclosure and -40-75°C wide operating temperature range, JetNet 5208GP series ensures high performance under traffic control systems and other Network applications.



Layer 2



Dual Power



Heavy Industrial



Wide Temp



EN50121-4



PoE

## Overview

- ▶ 8 10/100/1000 Base TX ports (JetNet5208GP) or 6 10/100/1000 Base TX ports + 2 Gigabit SFP (JetNet5208GP-2F Series)
- ▶ Compliance with IEEE 802.3af/at/bt, each port max 90W High Power PoE \*Note
- ▶ Total PoE Budget 180W \*Note, Flexible PoE ports setting
- ▶ Network Redundancy - MSR (Multiple Super Ring), ITU-T G.8032 ERPS V1/V2, RSTP, MSTP
- ▶ Fully Device Management - SNMP v1/v2c/v3, RMON, Web UI, Telnet and Local Console
- ▶ Friendly Device and Network Topology recovery utility - Korenix View, Korenix NMS
- ▶ Layer 2 Network Performance - IEEE802.1Q VLAN, Private VLAN, Trunk, Packet Filtering, DHCP Server/Client, Traffic Prioritize, Rate Control
- ▶ Advanced Security system by Port Security, Access IP list, SSH, HTTPS Login, TACACS+
- ▶ Event Notification through E-mail, SNMP trap and SysLog
- ▶ IEEE 802.1AB LLDP and optional Korenix NMS software for auto-topology and group management
- ▶ Cisco-Like CLI, Web, SNMP/RMON for network management
- ▶ Multiple event relay output for enhanced device alarm control
- ▶ Hi-Pot Isolation Protection for ports and power
- ▶ Railway Track Side EN50121-4 Certification
- ▶ Dual 48VDC Power input
- ▶ -40-75°C Wide Operating Temperature
- ▶ Support IEEE 802.3az

# Specification

| Technology             |   |
|------------------------|---|
| IEEE Standards         | IEEE 802.3 10 Base-T Ethernet<br>IEEE 802.3u 100 Base-TX Fast Ethernet<br>IEEE 802.3u 100 Base-FX Fast Ethernet Fiber<br>IEEE 802.3ab 1000 Base-T<br>IEEE 802.3z Gigabit Fiber<br>IEEE 802.3x Flow Control and Back-pressure<br>IEEE 802.1AB Link Layer Discovery Protocol (LLDP)<br>IEEE 802.1p Class of Service (CoS)<br>IEEE 802.1Q VLAN and GVRP<br>IEEE 802.1 QinQ<br>IEEE 802.1D-2004 Rapid Spanning Tree Protocol (RSTP)<br>IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)<br>IEEE 802.3ad Link Aggregation Control Protocol (LACP)<br>IEEE 802.1x Port Based Network Access Protocol<br>IEEE 802.3af/at/bt Power over Ethernet  |
| Performance            |   |
| Switch Technology      | Store and Forward Technology with 16 Gbps Switch Fabric   |
| System Throughput      | 29.7Mega packet per second  |
| CPU performance        | MIPS-4KEc CPU running at 500 MHz  |
| System Memory          | 32M Bytes flash ROM, 256M Bytes DDR3 SDRAM  |
| Transfer packet size   | 64 bytes to 10K bytes Jumbo Frame   |
| MAC Address            | 8K MAC address table  |
| Packet Buffer          | 4.1Mbit SRAM packet memory  |
| Forwarding performance | 14,880 pps for Ethernet and 148,800 pps for Fast Ethernet, 1488,100 pps for Gigabit Ethernet  |
| Interface              |   |
| Enclosure Port         | <ul style="list-style-type: none"> <li>• 10/100/1000 Mbps Ethernet port:               <ul style="list-style-type: none"> <li>- 8 x RJ-45 (JetNet5208GP)</li> <li>- 6 x RJ-45 (JetNet5208GP-2F Series)</li> </ul> </li> <li>• 100Mbps / 1000Mbps Fiber port :               <ul style="list-style-type: none"> <li>- 2 x SFP Socket (JetNet5208G-2F Series)</li> </ul>               SFP fiber transceiver with Hot-swappable and D.D.M. functions             </li> <li>• RS-232 Console port : 1 x RJ-45 for system configuration</li> <li>• Digital Input / Relay Output port: 4-Pin removable terminal block connector</li> <li>• Power input port: 4-Pin removable terminal block connector</li> </ul> |
| Ethernet Cable         | 100 Base-TX: 2-pair UTP/STP Cat. 6 cable, EIA/TIA-568B 100-ohm (100m)<br>1000 Base-TX: 4-pair UTP/STP Cat. 6 cable, EIA/TIA-568B 100-ohm (100m)   |
| Digital Input          | Digital Input (Hi): DC 11V-30V<br>Digital Input (Low): DC 0V-10V<br>Supports sink type signal input with photo-coupler isolation  |
| Relay Output           | Dry Relay output: 1A / DC 24V<br>Supports Multiple Events Binding trigger function.   |
| Diagnostic Indicators  | <ul style="list-style-type: none"> <li>• RJ-45 port: Link / Activity (Green on, Green Blinking), 1000Mbps (Yellow)</li> <li>• SFP port: Link/Activity (Green on, Green Blinking)</li> <li>• Power: System Power ready (Green on)</li> <li>• Sys: System Ready (Green on), System Updating (Green Blinking)</li> <li>• DO (Alarm): Alarm Relay Active (Red On)</li> <li>• R.S.: Green on (Ring normal)/Blinking (wrong ring port connective), Amber on (Ring abnormal) / Blinking (device's ring port failed)</li> <li>• PoE: Green On (PD Detect/On), Off (None-Detect/Off)</li> </ul>  |

| Power over Ethernet                      |  |
|--|--|
| Standard                                 | IEEE 802.3af, IEEE 802.3at, IEEE 802.3bt   |
| PoE operating mode                       | Auto Mode: IEEE 802.3af/at/bt <sup>*Note</sup><br>Forced Mode: User configured Power consumption budget control with IEEE 802.3 PoE /PD detection, or forced without PD detection  |
| PoE forwarding conductor                 | IEEE 802.3 af/at: RJ-45: V+(3,6), V- (1,2)<br>IEEE 802.3 bt: RJ-45: V+(3,4,5,6), V- (1,2,7,8)  |
| Power forwarding capability              | 6 PoE Port: 15W/IEEE802.3af, 30W/IEEE 802.3at (#1-6)(JetNet5208GP,JetNet5208GP-2F)<br>4 PoE Port: 90W/IEEE 802.3bt (#1-4) (JetNet5208GP-U,JetNet5208GP-2F-U)   |
| PoE System Power Budget                  | Port-based system power budget control with first plug-in high priority mechanism<br>PoE System Power Budget: 180Watts. <sup>*Note</sup>   |
| Management                               |  |
| Telnet & Local Console                   | Supports command line interface with Cisco-like commands and maximum 4 sessions; the telnet interface also supports SSH  |
| SNMP                                     | Support IPv4/IPv6, v1, v2c, v3 with SNMP trap function, trap station up to 4 and can be manually configured the trap server IP address.  |
| SNMP MIB                                 | MIBII, Bridge MIB, Ethernet-like MIB, VLAN MIB, IGMP MIB, Korenix Private MIB  |
| Korenix Utility                          | Supports Korenix View and Korenix NMS with IEEE 802.1AB Link Layer Discovery Protocol for device and link auto-topology discovery  |
| Network Time Protocol                    | Supports NTP protocol with daylight saving function and localized time sync function.  |
| Management IP Security                   | IP address security to prevent unauthorized access   |
| E-mail Warning                           | 4 receipt E-mail accounts with mail server authentication  |
| System Log                               | Supports both Local or remote Server with authentication   |
| IEEE 802.1x                              | Port based network access control, RADIUS, MAB, TACACS+  |
| Network Redundancy                       |  |
| Multiple Super Ring (MSR <sup>TM</sup> ) | New generation Korenix Ring Redundancy Technology, Includes Rapid Super Ring, Rapid Dual Homing, TrunkRing <sup>TM</sup> , MultiRing <sup>TM</sup> , SuperChain <sup>TM</sup> and backward compatible with legacy Super Ring <sup>TM</sup> . |
| Rapid Dual Homing (RDH <sup>TM</sup> )   | Multiple uplink paths to one or multiple upper switch  |
| TrunkRing <sup>TM</sup>                  | Integrates port aggregation function in ring path to get higher throughput ring architecture   |
| MultiRing <sup>TM</sup>                  | Couple or multiple rings; Up to 4 Gigabit rings in single switch   |
| SuperChain <sup>TM</sup>                 | It is new ring technology with flexible and scalability, compatibility, and easy configurable. The ring includes 2 types of node Switch - Border Switch and Member Switch  |
| ITU-T G.8032 ERPS                        | Support ITU-T G.8032 ERPS V1 single ring topology, and ERPS V2 multiple rings with ladder topology   |
| Rapid Spanning Tree                      | IEEE802.1D-2004 Rapid Spanning Tree Protocol. Compatible with Legacy Spanning Tree and IEEE 802.1w multiple spanning tree  |
| Loop Protection                          | The Loop Protection prevents any network looping caused by RSTP and MSR ring topology change   |
| Network Performance                      |  |
| Port Configuration                       | Port link Speed, Link mode, current status and enable/disable  |
| Port Trunk                               | IEEE 802.3ad port aggregation and static port trunk; trunk member up to 8 ports and maximum 4 trunk groups   |
| VLAN                                     | IEEE 802.1Q Tag VLAN with 256 VLAN Entries and provides 2K GVRP entries<br>3 VLAN link modes- Trunk, Hybrid and Link access  |
| Private VLAN                             | Direct client ports in isolated/community VLAN to promiscuous port in primary VLAN   |

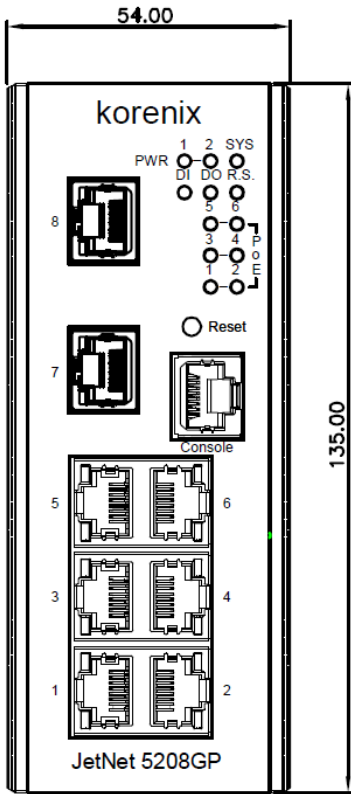
|                             |   |
|-----------------------------|---|
| Class of Service            | IEEE 802.1p class of service; per port 4 priority queues.   |
| Traffic Prioritization      | Supports 4 physical queues, weighted fair queuing (W.R.R.) and Strict Priority scheme, which follows 802.1p CoS tag and IPv4 ToS/ DiffServ information to prioritize the traffic of your industrial network |
| IGMP Snooping               | IGMP Snooping v1/v2c /v3 for multicast filtering and IGMP Query mode; also support unknown multicasting process forwarding policies- drop, flooding and forward to router port                              |
| Rate Control                | Ingress/Egress filtering for Broadcast, Multicast, Unknown DA or All packets  |
| Port Mirroring              | Online traffic monitoring on multiple selected ports  |
| Port Security               | Port security to assign authorized MAC to specific port   |
| DHCP                        | DHCP Client, DHCP Server with IP & MAC Address binding, DHCP relay and port based DHCP server   |
| <b>Mechanical</b>           |   |
| Installation                | DIN-Rail mounting   |
| Case                        | Steel metal with Aluminum heat-dissipate panel housing  |
| Ingress Protection          | IP41  |
| Dimension (mm)              | 50 (W) x 120(D) x 135 (H) - w/o DIN Rail Clip   |
| Weight                      | 0.9Kg   |
| <b>Power Requirement</b>    |   |
| System power                | 2x DC power input with polarity reverse protection  |
| Input Range                 | DC 48V & 50V (48-57V)   |
| Power system type           | Passive power system  |
| Power Consumption           | PoE af/at 180W@48V; bt 180W@50V <sup>*Note</sup>  |
| <b>Environmental</b>        |   |
| Operating Temperature       | -40 -75°C   |
| Operating Humidity          | 0% - 95%, non-condensing  |
| Storage Temperature         | -40 - 85°C, 0% -90% Humidity  |
| Hi-Pot                      | AC 1.5KV for Ethernet port and power  |
| <b>Regulatory Approvals</b> |   |
| EMC                         | IEC/EN61000-6-2, IEC/EN61000-6-4 Heavy Industrial EMC<br>EMI: FCC Class A, CE/ Class A<br>EMS:IEC/EN61000-4-2, IEC/EN61000-4-3, IEC/EN61000-4-4, IEC/EN61000-4-5,<br>IEC/EN61000-4-6, IEC/EN61000-4-8       |
| Railway Application         | EN50121-4   |
| Power Station               | IEEE1613, IEC 61850-3 Compliance  |
| Shock                       | Compliance with IEC 60068-2-27  |
| Vibration                   | Compliance with IEC 60068-2-6   |
| Free Fall                   | Compliance with IEC 60068-2-32  |
| Warranty                    | 5 years   |

\*Note:

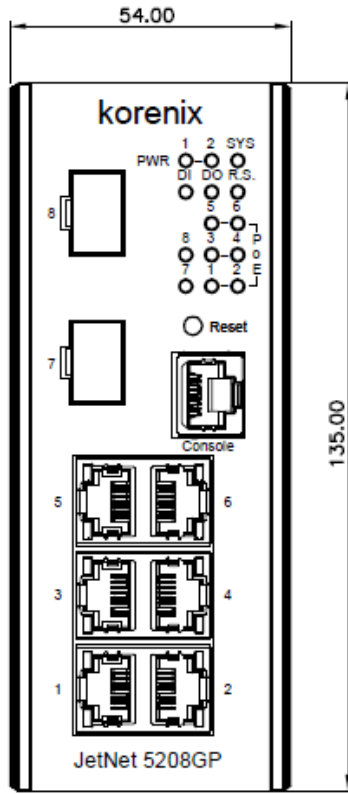
1. Please note that only the model with “U” supporting IEEE 802.3bt.
2. The model without “U” supporting PoE function in #1-6 ports (af/at), with 180W power budget;  
The model with “U” supporting PoE function in #1-4 ports (bt), with 180W power budget

Which needs to be decided before ordering. Kindly refer below order information for more details.

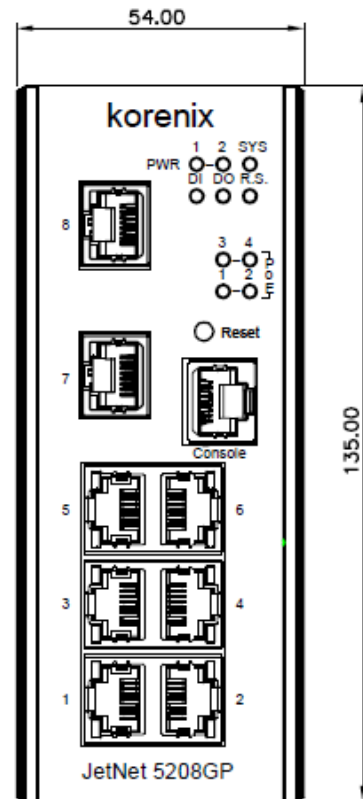
# Device Front Panel



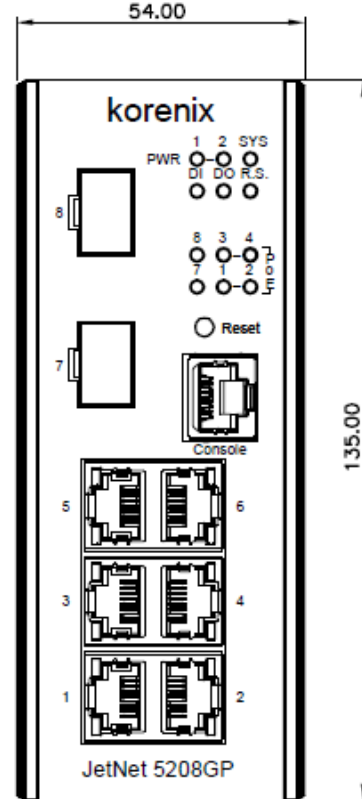
JetNet 5208GP



JetNet 5208GP-2F

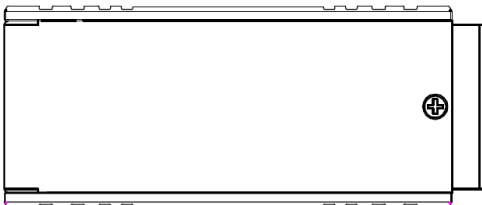
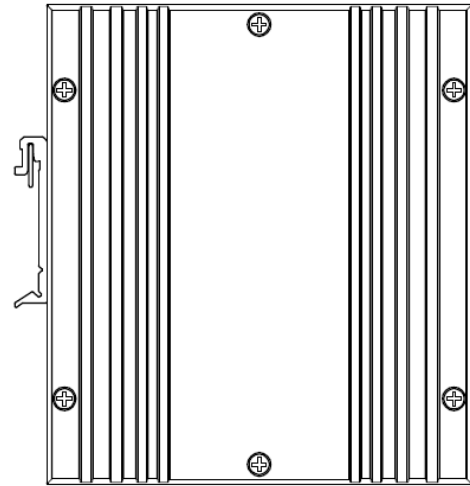
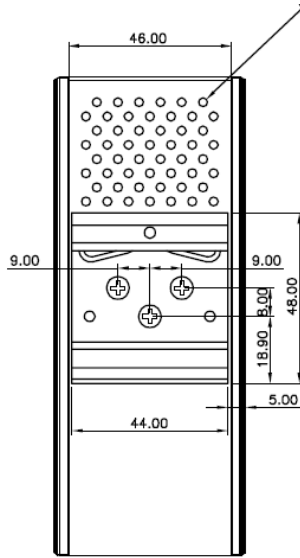
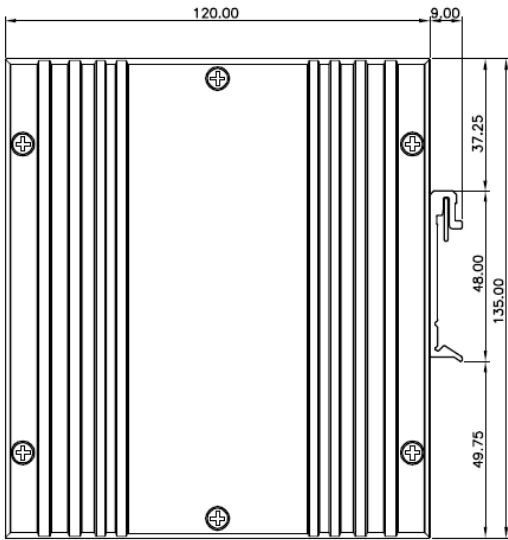
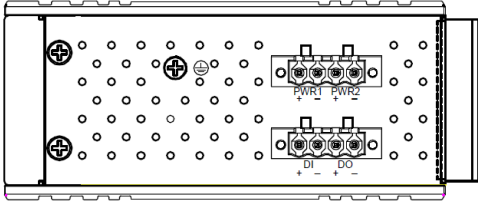
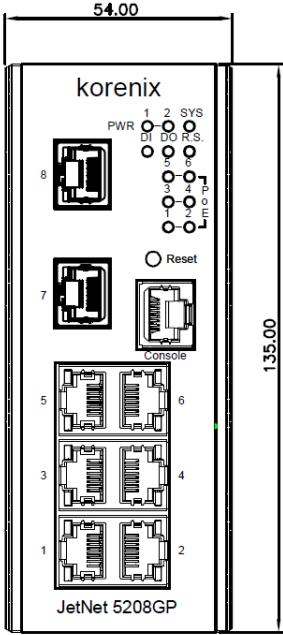


JetNet 5208GP-U



JetNet 5208GP-2F-U

# Dimension



## Selectin Tool

| Model Name         | 10/100/1000 Ethernet | 100/1000 Fiber | PoE Port | PoE      | Power Budget | Power Input |
|--------------------|----------------------|----------------|----------|----------|--------------|-------------|
| JetNet 5208GP      | 8                    | -              | # 1-6    | af/at    | 180W         | 46-57V      |
| JetNet 5208GP-2F   | 6                    | 2 (SFP)        | # 1-6    | af/at    | 180W         | 46-57V      |
| JetNet 5208GP-U    | 8                    | -              | # 1-4    | af/at/bt | 180W         | 50-57V      |
| JetNet 5208GP-2F-U | 6                    | 2 (SFP)        | # 1-4    | af/at/bt | 180W         | 50-57V      |

## Ordering Information

| Model Name         | Description   |
|--------------------|---|
| JetNet 5208GP      | Industrial 8G RJ45 Managed PoE Switch with 180W Power Budget, -40-75°C  |
| JetNet 5208GP-2F   | Industrial 6G RJ45 + 2G SFP Managed PoE Switch with 180W Power Budget, -40-75°C   |
| JetNet 5208GP-U    | Industrial 8G RJ45 Managed PoE Switch with 180W Power Budget, IEEE802.3af/at/bt, -40-75°C   |
| JetNet 5208GP-2F-U | Industrial 6G RJ45 + 2G SFP Managed PoE Switch with 180W Power Budget, IEEE802.3af/at/bt, -40-75°C  |
| Package            | Includes: <ul style="list-style-type: none"> <li>• JetNet 5208GP Series</li> <li>• DIN-Rail kit</li> <li>• Quick Installation Guide</li> </ul> Note: Please download User Manual from Korenix website |