

Industrial 8G RJ45 + 2G Combo + 2G SFP Managed PoE Switch

JetNet 5212GP-2C2F



Korenix JetNet 5212GP, the DIN-Rail type industrial Gigabit Managed PoE Switch is designed with eight 10/100/1000TX ports, two Gigabit RJ-45 / SFP combo ports and two Gigabit SFP port. JetNet 5212GP 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 480W ^{*Note}.

JetNet 5212GP 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 5212GP ensures high performance under traffic control systems and other Network applications.



Layer 2



Heavy Industrial



Wide Temp

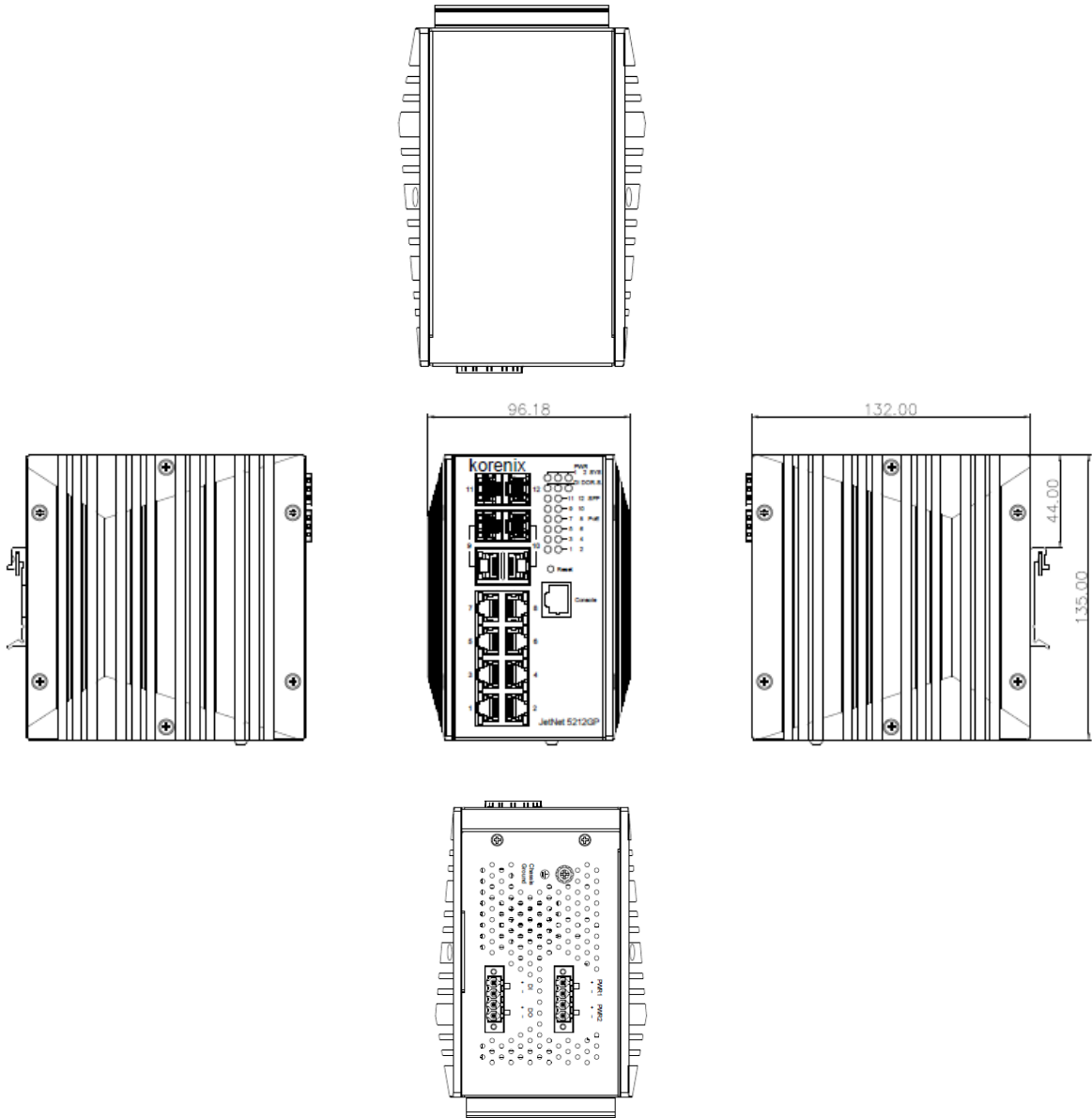


EN50121-4

Overview

- ▶ 8 10/100/1000 Base TX ports + 2 Gigabit RJ-45/ SFP combo + 2 Gigabit SFP
- ▶ SFP ports support Digital Diagnostic Monitoring (DDM)
- ▶ Compliance with IEEE 802.3af/at/bt, each port max 90W High Power PoE ^{*Note}
- ▶ Total PoE Budget 480W ^{*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

Dimension



Specification

Technology

| | |
|----------------|--|
| IEEE Standards | <ul style="list-style-type: none"> IEEE 802.3 10 Base-T Ethernet IEEE 802.3u 100 Base-TX Fast Ethernet IEEE 802.3u 100 Base-FX Fast Ethernet Fiber IEEE 802.3ab 1000 Base-T IEEE 802.3z Gigabit Fiber IEEE 802.3x Flow Control and Back-pressure IEEE 802.1AB Link Layer Discovery Protocol (LLDP) IEEE 802.1p Class of Service (CoS) IEEE 802.1Q VLAN and GVRP IEEE 802.1 QinQ IEEE 802.1D-2004 Rapid Spanning Tree Protocol (RSTP) IEEE 802.1s Multiple Spanning Tree Protocol (MSTP) IEEE 802.3ad Link Aggregation Control Protocol (LACP) IEEE 802.1x Port Based Network Access Protocol IEEE 802.3af/at/bt Power over Ethernet |
|----------------|--|

Specification

| Performance | |
|-----------------------------|---|
| Switch Technology | Store and Forward Technology with 24 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"> 10/100/1000 Mbps Ethernet port: 8 x RJ-45 Gigabit Ethernet port : 2 x RJ-45 with auto MDI/MDI-X function 100Mbps / 1000Mbps Fiber port : 4 x SFP Socket for SFP fiber transceiver with Hot-swappable and D.D.M. functions RS-232 Console port : 1 x RJ-45 for system configuration Digital Input / Relay Output port: 4-Pin removable terminal block connector Power input port: 4-Pin removable terminal block connector |
| Ethernet Cable | 100 Base-TX: 2-pair UTP/STP Cat.5e/Cat.6 cable, EIA/TIA-568B 100-ohm (100m) 1000 Base-T: 4-pair UTP/STP Cat.5e/Cat.6 cable, EIA/TIA-568B 100-ohm (100m) |
| Digital Input | Digital Input (Hi): DC 11V-30V Digital Input (Low): DC 0V-10V Supports sink type signal input with photo-coupler isolation |
| Relay Output | Dry Relay output: 1A / DC 24V Supports Multiple Events Binding trigger function. |
| Diagnostic Indicators | <ul style="list-style-type: none"> 1000Mbps RJ-45 port: Link / Activity (Green on, Green Blinking), 1000Mbps (Yellow) SFP port: Link/Activity (Green on, Green Blinking) Power: System Power ready (Green on) Sys: System Ready (Green on), System Updating (Green Blinking) DO (Alarm): Alarm Relay Active (Red On) R.S.: Green on (Ring normal)/Blinking (wrong ring port connective), Amber on (Ring abnormal) / Blinking (device's ring port failed) PoE: Green On (PD Detect/On), Off (None-Detect/Off) |
| Power over Ethernet | |
| Standard | IEEE 802.3af, IEEE 802.3at, IEEE 802.3bt |
| PoE operating mode | Auto Mode: IEEE 802.3af/at/bt 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) IEEE 802.3 bt: RJ-45: V+(3,4,5,6), V- (1,2,7,8) |
| Power forwarding capability | 8 Port PoE (#1-8) PoE Port: 15W/IEEE802.3af, 30W/IEEE 802.3at, 60W-90W/IEEE 802.3bt ^{*Note} |
| PoE System Power Budget | Port-based system power budget control with first plug-in high priority mechanism PoE System Power Budget: 480Watts. ^{*Note} |

| 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™) | New generation Korenix Ring Redundancy Technology, Includes Rapid Super Ring, Rapid Dual Homing, TrunkRing™, MultiRing™, SuperChain™ and backward compatible with legacy Super Ring™. |
| Rapid Dual Homing (RDH™) | Multiple uplink paths to one or multiple upper switch |
| TrunkRing™ | Integrates port aggregation function in ring path to get higher throughput ring architecture |
| MultiRing™ | Couple or multiple rings; Up to 6 Gigabit rings in single switch |
| SuperChain™ | 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 6 trunk groups |
| VLAN | IEEE 802.1Q Tag VLAN with 256 VLAN Entries and provides 2K GVRP entries 3 VLAN link modes- Trunk, Hybrid and Link access |
| Private VLAN | Direct client ports in isolated/community VLAN to promiscuous port in primary VLAN |
| IEEE802.1 QinQ | Supports Double VLAN Tag function for implementing Metro Network topologies |
| Class of Service | IEEE 802.1p class of service; per port 4 priority queues. |
| Traffic Prioritize | 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/v2/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 |

| Mechanical | |
|-----------------------|---|
| Installation | DIN-Rail mounting |
| Case | Steel metal with Aluminum heat-dissipate panel housing |
| Ingress Protection | IP31 |
| Dimension (mm) | 74 (W) x 132(D) x 135 (H) - w/o DIN Rail Clip |
| Weight | 1.2Kg |
| Power Requirement | |
| 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 240W@48V; 480W@50V ^{*Note} |
| Environmental | |
| 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 |
| Regulatory Approvals | |
| EMC | IEC/EN61000-6-2, IEC/EN61000-6-4 Heavy Industrial EMC EMI: FCC Class A, CE/ Class A EMS:IEC/EN61000-4-2, IEC/EN61000-4-3, IEC/EN61000-4-4, IEC/EN61000-4-5, IEC/EN61000-4-6, IEC/EN61000-4-8 |
| Railway Application | EN50121-4 |
| 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:**

Please choose the model with “U” for supporting IEEE 802.3bt and 480W power budget. Kindly refer below order information for more details.

Ordering Information

| Model Name | Description |
|----------------------|--|
| JetNet 5212GP-2C2F | Industrial 8G RJ45 + 2G Combo + 2G SFP Managed PoE Switch with 240W Power Budget, -40~75°C |
| JetNet 5212GP-2C2F-U | Industrial 8G RJ45 + 2G Combo + 2G SFP Managed PoE Switch with 480W Power Budget, IEEE802.3af/at/bt, -40~75°C |
| | Includes: <ul style="list-style-type: none"> • JetNet 5212GP-2C2F Series • DIN-Rail kit • Quick Installation Guide Note: Please download User Manual from Korenix website |