



16-Port 10/100/1000Mbps Industrial Managed PoE Switch with 2 SFP Uplink



IPv6/IPv4
ACL/QoS

802.3at
PoE+
802.3af



BI8216PG2F

Key Features:

Ports: Provide 16*10/100/1000Mbps PoE ports with 2*1000Mbps SFP

PoE Standard: IEEE802.3af/at Power over Ethernet (PoE) Compliant

Self-adaption: RJ45 port supports 10/100/1000Mbps Auto MDI/MDIX

Industrial Installation: Din Rail mounting installation

Wide Application: Designed for Railway, traffic etc some Industrial environment

Surge protection: Protect the device from lighting surges and others electrical hazards

Managed: Support remote web managed, VLAN and storm control and IPV6 management etc.

Working Temperature: -40 to 85 degrees operating temperature

Considerate Design: IP40 Industrial design with dual power input

Environmentally Hardened Design

With the **IP40** metal industrial case which provides a high level of immunity against electromagnetic interference and heavy electrical surges, Being able to operate under the temperature range from **-40 to 85 degrees C**, the BI8216PG2F can be placed in almost any difficult environment.



Working Temperature

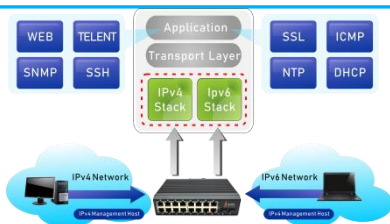
-40°C 85°C

Wide temperature design

work well in different harsh environment

Cost-effective IPv6 Managed Gigabit PoE Switch Solution

With layer 2+ managed Gigabit PoE Switch, It provides IPv6/IPv4 management and built-in L2/L4 Gigabit Switching engine, and supports high-speed transmission of surveillance images and videos.



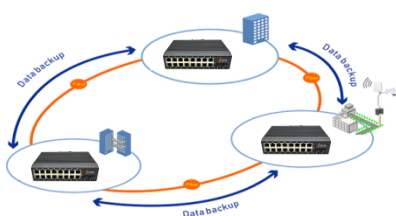
Surge Protection Design

provides contact discharge of $\pm 8\text{KV}$ DC and air discharge of $\pm 15\text{KV}$ DC for Ethernet ESD protection. It also supports $\pm 6\text{KV}$ surge immunity to improve product stability and protects users' networks from devastating ESD attacks, making sure the flow of operation does not fluctuate.



Comprehensive reliability mechanisms(ERPS)

Besides STP, RSTP, and MSTP, the BI8216PG2F Managed PoE Switch supports enhanced Ethernet reliability technologies such as Ethernet Ring Protection Switching (ERPS), also referred to as G.8032. ERPS supports various services and allows flexible networking, helping customers build a network with lower OPEX and CAPEX.



BI8216PG2F

16-Port 10/100/1000Mbps Industrial Managed PoE Switch with 2 SFP

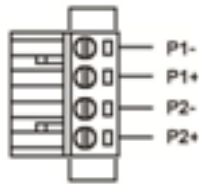
Technical Datasheet

| Model | BI8216PG2F | |
|--|--|----------------|
| Hardware Specifications | | |
| Connector | 16* 10/100/1000BASE-T RJ45 auto MDI/MDIX ports | |
| | 2* 1000 Base-X SFP Slots | 1 Console port |
| PoE Port | 16* 10/100/1000Mbps POE PSE port | |
| LED Display | Power Indicator: PWR(green).Network Indicator: Link(yellow) PoE Working Indicator: PoE(green) | |
| Thermal Fan | Fanless Design | |
| Installation | Din Rail | |
| Switch Architecture | Store and Forward | |
| Transmission model | IEEE802.3X full-duplex and Backpressure half-duplex | |
| Switch Performance | Backplane bandwidth | 48Gbps |
| | Packet forwarding rate | 27Mpps |
| | MAC address | 8k |
| Power requirement | DC 44V~54V | |
| ESD Protection | 6KV ESD | |
| Dimension(WxDxH) | 50mm x110mm x 180mm(1.97in x 4.33in x 7.9in) | |
| Weight | <1.32kg | |
| Power over Ethernet (PoE) Specifications | | |
| Network standard | IEEE802.3i 10 BASE-T | |
| | IEEE802.3u 100 BASE-TX | |
| | IEEE802.3ab 1000BASE-T | |
| | IEEE802.3x Flow Control | |
| | IEEE802.3af Power over Ethernet | |
| | IEEE802.3at Power over Ethernet | |
| | IEEE802.3az EEE | |
| PoE Standard | IEEE 802.3af Power over Ethernet/PSE | |
| | IEEE 802.3at Power over Ethernet Plus/PSE | |
| PoE Supply Type | 1/2(+), 3/6(-) End-span | |
| PoE Power Output | Per Port 52V DC, 300mA. max. 15.4 watts (IEEE 802.3af) | |
| | Per Port 52V DC, 600mA. max. 30 watts (IEEE 802.3at) | |
| PoE Power budget | 240W optional | |
| Layer 2 Functions | | |
| Port Mirroring | TX / RX / both Many-to-1 monitor | |
| Vlan | 802.1Q tagged-based VLAN | |
| | Up to 256 VLAN groups, out of 4094 VLAN IDs | |
| | 802.1ad Q-in-Q tunneling | |
| | Voice VLAN;Protocol VLAN;Private VLAN (Protected port),GVRP | |
| Link Aggregation | IEEE 802.3ad LACP and static trunk | |
| | Supports 8 groups of 8-port trunk | |
| Spanning Tree Protocol | STP, IEEE 802.1D Spanning Tree Protocol | |
| | RSTP, IEEE 802.1w Rapid Spanning Tree Protocol | |

| | |
|------------------------------|--|
| | MSTP, IEEE 802.1s Multiple Spanning Tree Protocol |
| Industrial Ring | G.8032 (ERPS), Recovery time less than 20ms 250 Ring at most, Max 1024 devices per ring |
| IGMP Snooping | IGMP (v2/v3) snooping IGMP querier Up to 256 multicast groups |
| MLD Snooping | MLD (v1/v2) snooping, up to 256 multicast groups |
| Access Control List | IPv4/IPv6 IP-based ACL / MAC-based ACL |
| PoE Management | Open or close port Standard POE scheduling management Power and current display Automatic restarting function of equipment dead machine Timing Support IP bindings restarting |
| QoS | 8 mapping ID to 8 level priority queues --- Port number --- 802.1p priority --- 802.1Q VLAN tag --- DSCP field in IP packet Traffic classification based, strict priority and WRR |
| Security | IEEE 802.1X port-based authentication Built-in RADIUS client to co-operate with RADIUS server RADIUS / TACACS+ user access authentication IP-MAC port binding MAC filtering Static MAC address DHCP Snooping and DHCP Option82 STP BPDU guard, BPDU filtering and BPDU forwarding DoS attack prevention ARP inspection IP source guard |
| Management Function | |
| Basic Management Interfaces | Web browser / Telnet / SNMP v1, v2c, V3 Firmware upgrade by HTTP / TFTP protocol through Ethernet network Remote / Local Syslog, System log, LLDP protocol, SNMP |
| Secure Management Interfaces | SSH, SSL, SNMP |
| SNMP MIBs | RFC 1213 MIB-II RFC 1215 Generic Traps RFC 1493 Bridge MIB RFC 2674 Bridge MIB Extensions RFC 2737 Entity MIB (Version 2) RFC 2819 RMON (1, 2, 3, 9) RFC 2863 Interface Group MIB RFC 3635 Ethernet-like MIB |
| Environment | |
| Safety | FCC Part15 Class A, CE, RoHS |
| Environment specification | Operating temperature: -40℃~85℃, operating humidity: 5%~95% Storage temperature: -40℃~85℃, storage humidity: 5%~95% |

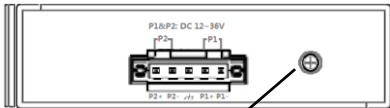
Installation Models

Power Terminal

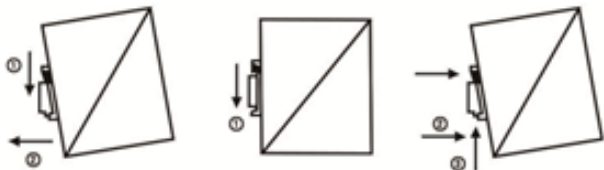


- ◆ 4-pin 3.81mm-spacing plug-in terminal
- ◆ 48V-56VDC wide voltage input
- ◆ P1&P2 dual power input
- ◆ Reverse protection

Earth Protection

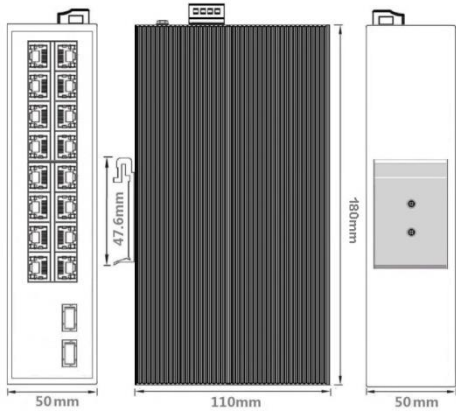


Ground terminal or screw

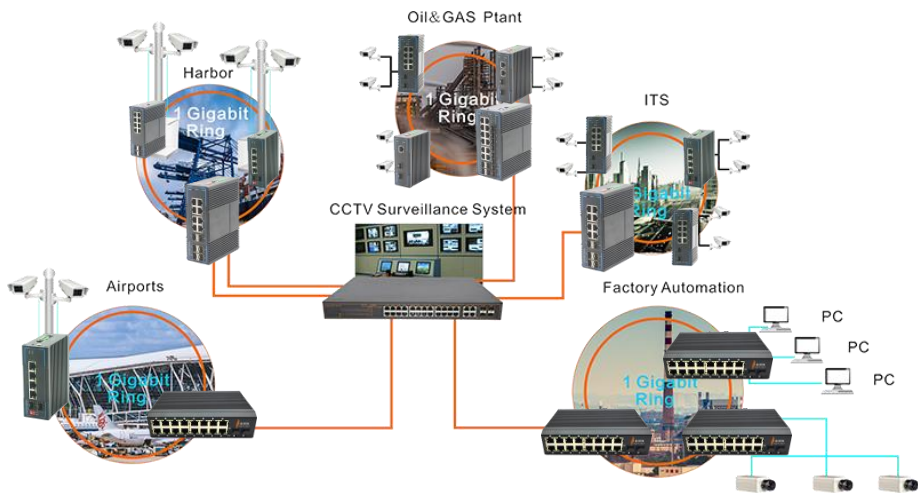


Din-Rail

Mechanical Drawing



Applications



| Ordering Information | |
|----------------------|---|
| BI8216PG2F | 16 Ports 10/100/1000Mbps Industrial Managed PoE switch With 2 SFP, IEEE802.3af/at |