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# BI9148PGM4TF - 600 WS
## 10G UPLINK MANAGED PoE SWITCH



### Ideal for:

- Telecom
- Hotels & Resorts
- Universities
- Healthcare
- Public Places
- Airport
- Transport
- Industries

## OVERVIEW

The BI9148PGM4TF-600WS is a 10G uplink managed industrial PoE fiber switch Featuring 4810/100/1000 Base –T RJ 45 ports and 41/10g SFP+ fiber ports. It Supports IEEE802.3af/at PoE standards, providing up to 30W per port, making It ideal for powering PoE devices like wireless Aps, webcams, and VolP systems. Designed for industrial environments such as transportation, energy, and mining It offers robust L3 network management, VLAN support, security features, and Redundancy protocols (STP/RSTP/MSTP/ERPS) for enhanced network reliability Management options include web, CLI, SNMP, and Telnet

## FEATURES

- Gigabit access, 10 G Uplink
- Intelligent PoE power supply function
- Security
- Strong business processing capability
- Stable and reliable
- Easy operation and maintenance management

## PICTURE



52-Ports 10G Uplink Managed PoE Switch (BI9148PGM4TF-600WS Series) Datasheet

# BI9148PGM4TF - 600 WS
## 10G UPLINK MANAGED PoE SWITCH

| Model | BI9148PGM4TF-600WS |
|---|---|
| **Interface Characteristics** | |
| Fixed Port | 2*AC100-240V input ports Alarm switch port (FAULT) 1*Console port (115200, N, 8,1) 4*1/10G uplink SFP+ ports (Data) 48*10/100/1000Base-T PoE ports (Data/Power) 1 group of DC48-57V input ports (Support reverse polarity protection function) |
| Ethernet Port | Port 1-48 support 10/100/1000Base-T auto-sensing, full/half duplex MDI/MDI-X self-adaption |
| Twisted Pair Transmission | 10BASE-T: Cat3,4,5 UTP(≤100 meters) 100BASE-TX: Cat5 or later UTP(≤100 meters) 1000BASE-T: Cat5e/6 or later UTP(≤100 meters) |
| Optical Fiber Port | Gigabit SFP optical fiber port and 10G SFP+ optical fiber port, default no Include optical modules (optional order single-mode / multi-mode, singlefiber / dual fiber optical module. LC) |
| Optical Fiber Port Expansion | Support Turbo overclocking 2.5G optical module expansion and ring network |
| Optical Cable/ Distance | Multi-mode: 850nm / 0-500M(1G), 850nm /0-300M(10G), Single-mode: 1310nm / 0-40KM, 1550nm / 0-120KM. |
| **Chip Parameter** | |

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|---|---|
| Network Management Type | L3 |
| Network Protocol | IEEE802.3 10BASE-T, IEEE802.3i 10Base-T, IEEE802.3u 100Base-TXIEEE802.3ab 1000Base-T, IEEE802.3z 1000Base-X IEEE802.3ae 10GBase-LR/SR, IEEE802.3x |
| Forwarding Mode | Store and Forward(Full Wire Speed) |
| Switching Capacity | 368Gbps (non-blocking) |
| Forwarding Rate@64byte | 131Mpps |
| CPU | Dual core 1GHz |
| DRAM | 2GB |
| FLASH | 256MB |
| MAC | 32K |
| Buffer Memory | 16MB |
| Jumbo Frame | 12KB |
| LED Indicator | Power: PWR(Green), System: SYS (Green), Network:Link (Yellow), PoE: PoE (Green), Fiber port: L/A (Green) |
| Reset Switch | Yes, press and hold the switch for 10 seconds and release it to restore the factory settings |
| **PoE & Power Supply** | |
| PoE Port | Port 1 to 48 IEEE802.3af/at |
| PoE Management | PoE working status display, Port PoE on/off, af/at power distribution |
| Power Supply Pin | 1/2 (+) 3/6(-) |
| Max Power Per Port | 30W, IEEE802.3af/at |
| Total PWR / Input | 2*600W(AC100-240V) |

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| | |
|---|---|
| Voltage | |
| Power Consumption | Standby<35W, Full Load<600W |
| Power Supply | Built-in power supply, AC 100~240V 50-60Hz 6.6A*2 |
| Power Input Port | 1 group of DC48-57V input port<br><br>Alarm switch port, 1 group of AC power input ports<br><br>Dual input power port design: AC power supply priority, support<br><br>Anti-reverse protection, power-off automatic switching DC connection. |
| **Physical Parameter** | |
| Operation TEMP / Humidity | -40~+80°C, 5%~90% RH Non condensing |
| Storage TEMP / Humidity | -40~+85°C, 5%~95% RH Non condensing |
| Dimension (L*W*H) | 440*378*44.5mm |
| Net /Gross Weight | <6.8kg / <7.5kg |
| Installation | Desktop, 19 inch 1U cabinet |
| **Certification & Warranty** | |
| Lightning Protection | Lightning protection: 6KV 8/20us, Protection level: IP30 IEC61000-4-2(ESD):±8kV<br><br>contact discharge,±15kV air dischargeIEC61000-4-3(RS):10V/m(80~1000MHz)<br><br>IEC61000-4-4(EFT): power cable:±4kV; data cable:±2kV<br><br>IEC61000-4-5(Surge):power cable:CM±4kV/DM±2kV; data cable:±4kVIEC61000-4-6(radio<br><br>frequency transmission):10V(150kHz~80MHz) IEC61000-4-8(power frequency magnetic<br><br>field):100A/m;1000A/m ,1s to3s<br><br>IEC61000-4-9(pulsed magnet field):1000A/m<br><br>IEC61000-4-10(damped oscillation):30A/m 1MHz |

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|---|---|
| | IEC61000-4-12/18(shockwave):CM 2.5kV,DM 1kV<br><br>IEC61000-4-16(common-mode transmission):30V; 300V,1sFCC Part<br><br>15/CISPR22(EN55022):Class B<br><br>IEC61000-6-2(Common Industrial Standard) |
| MechanicalProperties | IEC60068-2-6 (anti vibration)<br><br>IEC60068-2-27 (anti shock)IEC60068-2-32<br><br>(free fall) |
| Certification | CCC, CE mark, commercial, CE/LVD EN62368-1, FCC Part 15 Class B,<br><br>RoHS |
| Warranty | 5 years, lifelong maintenance. |
| **Network Management Features** | |
| Interface | IEEE802.3x flow control (full duplex)Port exception<br><br>protection mechanism<br><br>Port real-time flow management (Flow Interval)Broadcast storm<br><br>suppression based on port rate<br><br>Optical port SFP module DDMI real-time digital diagnosis<br><br>Limit the rate of incoming and outgoing packet traffic, with a minimumgranularity of 16Kbps<br><br>and a maximum of 1Gbps<br><br>Port EEE Green Ethernet Energy-Saving configuration and status view<br><br>Jumbo frame configuration, the largest 12000byte |
| Layer 3 Features | ARP protocol, 1024 entries at most RIPv1/v2, RIPng ,<br><br>OSPFv1/v2, OSPFv3<br><br>Support L3 network management function, support 128 entries of<br><br>IPv4/IPv6 static routes, and dual stack management |
| VLAN | VLAN based on MAC, VLAN based on the protocol<br><br>Port configuration of Access, Trunk, Hybrid. GVRP VLAN protocol |

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| | (4K) VLAN based on port, IEEE802.1q, Voice VLAN, QinQ configuration |
| Port Aggregation | LACP dynamic aggregation, Static aggregation<br><br>Max 26 aggregation groups and maximum 8 ports per group. |
| Spanning Tree | STP BPDU Guard, BPDU filtering and BPDU forwarding<br><br>STP (IEEE802.1d), RSTP (IEEE802.1w), MSTP (IEEE802.1s) |
| ERPS Ring Network | Support ERPS ring network, ring network self-healing time is less than<br><br>20ms, ITU-T G.8032 |
| Multicast | MLD Snooping, IGMP Snooping, Multicast VLAN User quick log out,<br><br>MVR (Multicast LAN registration)<br><br>IGMP Snooping v1/v2/v3 and 1024 multicast groups at most |
| Mirroring | Bidirectional traffic mirroring for basic ports<br><br>Supports 1-to-multiple mirroring, supports up to 4 port sessions |
| QoS | Queue Scheduling Algorithm (SP, WRR, SP+WRR)Flow-based Rate<br><br>Limiting, Stream based redirection<br><br>Flow-based Packet Filtering, 8*Output queues of each port<br><br>802.1p/DSCP priority mapping, Diff-Serv QoS, Priority Mark/Remark |
| ACL | ACL distribution based on port and VLAN<br><br>L2-L4 packet filtering function, matching the first 80 bytes message, andprovides ACL<br><br>definitions based on source MAC address, destination MAC address, source IP address,<br><br>destination IP address, IP protocol<br><br>type, TCP/UDP port, TCP/UDP port range, VLAN, etc. |
| Security | Port based IEEE802.1X authentication SSL guarantees data<br><br>transmission security<br><br>Quad binding function of IP+MAC+VLAN+ports MAC address learning<br><br>limit, MAC address black hole<br><br>Anti DoS attack, Port broadcast message suppression |

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|---|---|
| | IP Source Guard function, AAA&RADIUS certification Hierarchical user management and password protection SSH 2.0 provides a secure encrypted channel for user login<br><br>Host data backup mechanism, ARP intrusion detection function<br><br>Port isolation, IP Source Guard, ARP message speed limit function |
| DHCP | DHCP Client, DHCP Snooping, DHCP Server |
| Management | Web network management (https) Link Layer Discovery Protocol(LLDP) Viewing CPU Instant Utilization Status<br><br>NTP clock, One click restore, SNMP V1/V2C/V3 Cable status check, Ping detection, System work logNMS platform cluster management (LLDP+SNMP)<br><br>Console/AUX Modem/Telnet/CLI command line configuration<br><br>FTP, TFTP, Xmodem, SFTP file upload and download management |
| System | Category 5 Ethernet network cable<br><br>Web browser: Mozilla Firefox 2.5 or higher, Google browser chrome V42or higher, Microsoft Internet Explorer10 or later<br><br>TCP/IP, network adapter, and network operating system (such as Microsoft Windows, Linux, or Mac OS X) installed on each computer in anetwork |

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## 10G UPLINK MANAGED
## PoE SWITCH



## DIMENSION



298mm

44.5mm

440mm

A    B    C    D    E
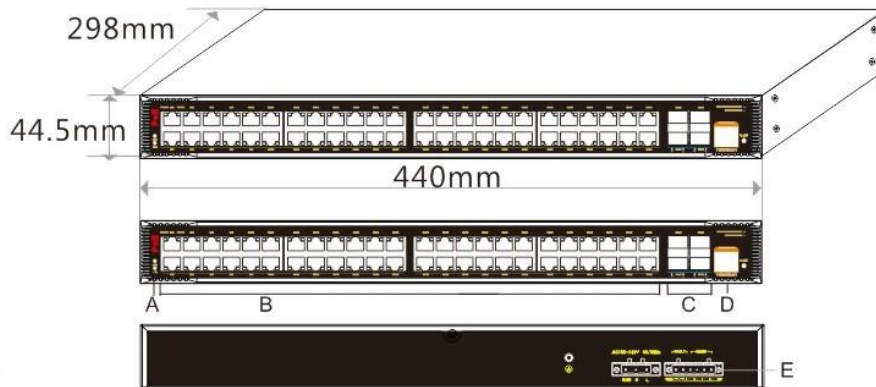
A. Working indicator          B. 48* PoE ports
C. 4*1/10G SFP+ ports        D. Console port
E. AC/DC input ports

## APPLICATION



PoE Switch
Power
Monitor
Cat.5e/6
PoE Splitter
NVR
Video line
Cat.5
10G Fiber
x9616RPSM
Power
DC out
IP Camera
PoE IP Camera
PoE IP Camera
Network users
Cat.5e/6
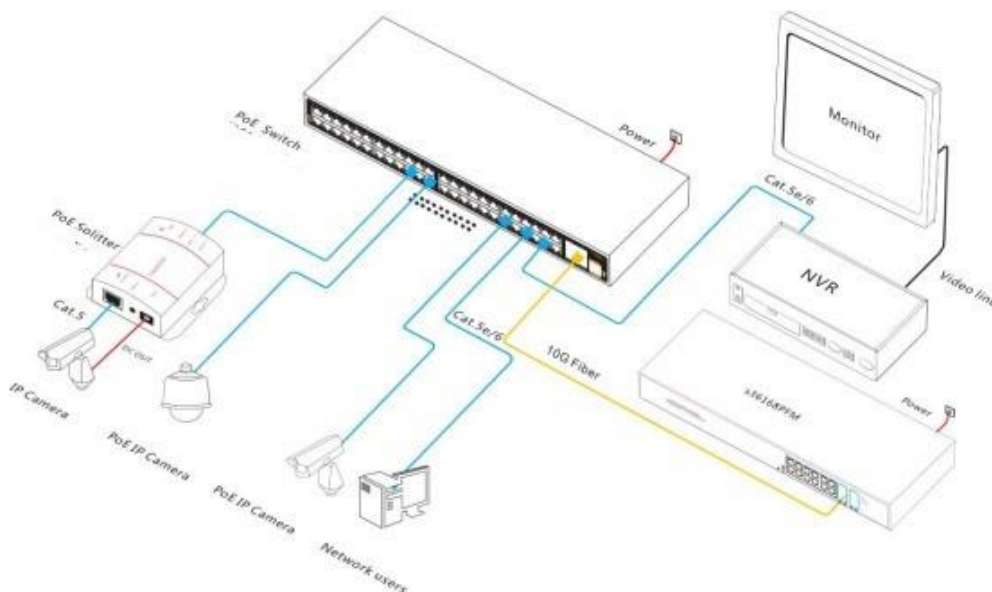
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## 10G UPLINK MANAGED PoE SWITCH

## PACKING LIST

| | CONTENT | QTY | UNIT |
|---|---|---|---|
| **Packing List** | 52-port 10G uplink managed industrial PoE switch | 1 | SET |
| | AC Power Cable | 1 | PC |
| | RJ45-DB9 Line | 1 | PC |
| | Mounting Kits | 1 | SET |
| | User Guide | 1 | PC |

# 337 Forest Road,
London, United Kingdom

+44 7859 571344

info@bornelectronics.com

https://bornelectronics.com/

52-Ports 10G Uplink Managed PoE Switch (BI9148PGM4TF-600WS Series) Datasheet