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BI8208GM2G4F

14-Port Gigabit Industrial L2 Managed Switch

Datasheet

Key Features:

Ports: Provide 8*10/100/1000Mbps ports with 2*10/100/1000M RJ45 and 4*1.25Gbps SFP Uplink

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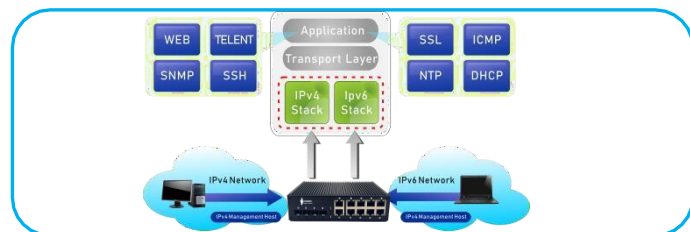
Managed: Support remote web managed,VLAN and storm control and IPV6 management etc.

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 BI8208GM2G4F can be placed in almost any difficult environment.

Surge Protection Design

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

Cost-effective IPv4/IPv6 Managed Gigabit Switch Solution

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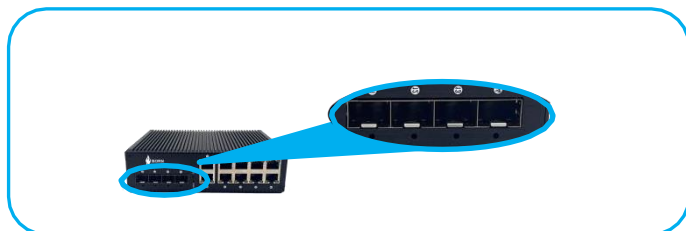
Gigabit SFP Uplink Port

With 4 SFP module slot available, the SFP uplink port is ideal for connecting the switch to the network's backbone, providing more than enough bandwidth and stability for ultra high speed data transferring, Beside the SFP can transmitte the date with Max 100Km distance with more economic solution

Technical Datasheet

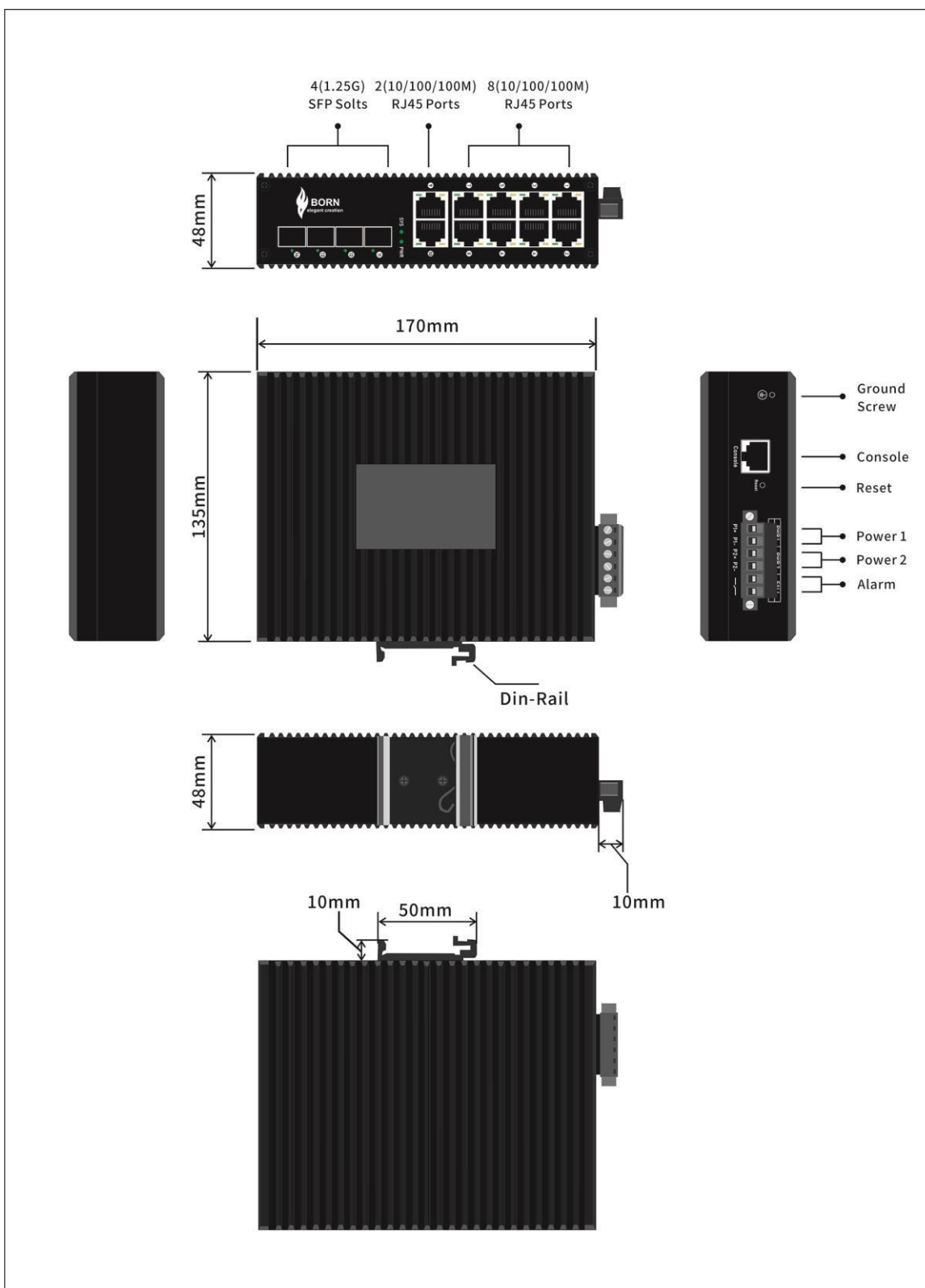| Technical Specifications	BI8208GM2G4F
10M/100M/1G RJ-45 copper ports	10
1G SFP+ ports	4
Console Port (For config)	Yes
Performance Specification	
CPU	Dual-Core 1GHz MIPS InterAptive CPU subsystem
Packet buffer memory (Dynamically shared across only used ports)	12 MB
Forwarding modes	Store-and-forward
Bandwidth	32 Gbps
Priority queues	8
MAC address database size (48-bit MAC ad-dresses)	8K
Multicast groups	1K
Number of IPv4 static routes	32
Number of IPv6 static routes	32
Number of VLANs	4094
Number of VLANs(Open QinQ)	16,760,836(4094*4094)
Number of ARP cache entries	1024 ARP
Number of DHCP snooping bindings	512
Access Control Lists (ACLs)	100 shared for MAC, IP and IPv6 ACLs (ingress)
Packet forwarding rate (64 byte packet size) (Mpps)	24.62
Jumbo frame support (bytes)	Up to 9K packet size
Mean Time Between Failures (MTBF) @ 25°C	142,312 hours
100M Copper Latency (64-byte; 1518-byte; 9216-byte frames)	8.314µs; 8.612µs; 8.451µs
1G Copper Latency (64-byte; 1518-byte; 9216-byte frames)	3.614µs; 3.545µs; 3.628µs
1G Fiber Latency (64-byte; 1518-byte; 9216-byte frames)	2.980µs; 3.101µs; 3.179µs
10G Fiber Latency (64-byte; 1518-byte; 9216-byte frames)	2.330µs; 2.561µs; 2.7129µs

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8-Port 10/100/1000Mbps Industrial Managed Switch with 2 RJ45 and 4 SFP Uplink

L2 Services - VLANs	BI8208GM2G4F
IEEE 802.1Q VLAN tagging	Yes
QinQ VLAN tagging	Yes
IP-based VLANs	Yes
MAC-based VLANs	Yes
Protocol-based VLAN	Yes
Voice VLAN	Yes
VLAN mapping	Yes
L2 Services - Availability	
Broadcast, multicast, unknown unicast storm control	Yes
IEEE 802.3ad - LAGs (LACP)	Yes
IEEE 802.3x (full duplex and flow control)	Yes
IEEE 802.1D Spanning Tree Protocol	Yes
IEEE 802.1w Rapid Spanning Tree Protocol	Yes
IEEE 802.1s Multiple Spanning Tree Protocol	Yes
ERPS,Complies with G.8032	Yes
L2 Services - Multicast Filtering	
IGMP snooping (v1, v2 and v3)	Yes
MLD snooping support (v1 and v2)	Yes
IGMP snooping querier (v2)	Yes
MLD snooping querier (v1)	Yes
Multicast VLAN Registration (MVR)	Yes
L3 Services - DHCP	
DHCP client	Yes
DHCP snooping	Yes
DHCP Server	Yes
L3 Services - Routing	
IPv4 static routing	Yes
IPv6 static routing	Yes

Link Aggregation	BI8208GM2G4F
IEEE 802.3ad - LAGs (LACP)	Yes
Manual LAG	Yes
# of LAGs / # of members in each LAG	26 LAGs with max 8 members in each LAG
Network Monitoring and Discovery Services	
802.1ab LLDP	Yes
SNMP	v1, v2,v3
RMON group 1,2,3,9	Yes
Network Security	
IEEE 802.1x	Yes
RADIUS accounting	Yes
Access Control Lists (ACLs)	Yes
IP-based ACLs (IPv4 and IPv6)	L2 / L3 / L4
MAC-based ACLs	Yes
TCP/UDP-based ACLs	Yes
Control MAC # static entries	48
Port-based security by locked MAC addresses	Yes
Dynamic ARP inspection	Yes
Quality of Service (QoS)	
Port-based rate limiting	Yes ingress and egress
Port-based QoS	Yes
Support for IPv6 fields	Yes
DiffServ QoS	Yes ingress
IEEE 802.1p COS	Yes
Destination MAC and IP	Yes
IPv4 and v6 DSCP	Yes
TCP/UDP-based	Yes
Weighted Round Robin (WRR)	Yes
Strict priority queue technology	Yes

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8-Port 10/100/1000Mbps Industrial Managed Switch with 2 RJ45 and 4 SFP Uplink

IEEE Network Protocols	BIQ8208GM2G4F
• IEEE 802.3 Ethernet	• IEEE 802.1Q VLAN Tagging
• IEEE 802.3u 100BASE-T	• IEEE 802.1AB LLDP with ANSI/TIA-1057 (LLDP-MED)
• IEEE 802.3ab 1000BASE-T	• IEEE 802.1p Class of Service
• IEEE 802.3az Energy Efficient Ethernet (EEE)	• IEEE 802.1D Spanning Tree (STP)
• IEEE 802.3ad Trunking (LACP)	• IEEE 802.1s Multiple Spanning Tree (MSTP)
• IEEE 802.3z 1000BASE-SX/LX	• IEEE 802.1w Rapid Spanning Tree (RSTP)
• IEEE 802.3x Full-Duplex Flow Control	• IEEE 802.1x RADIUS Network Access Control

Management, Monitoring & Troubleshooting	
Password management	Yes
Admin access control via RADIUS and TACACS+	Yes
IPv6 management	Yes
SNMP v1/v2c	Yes
RMON group 1,2,3,9	Yes
Port mirroring	Yes ingress and egress
Many-to-one port mirroring	Yes
Cable test utility	Yes
TLS/HTTPS Web-based access (version)	Yes (v1.2)
File transfers (uploads, downloads)	TFTP / HTTP
HTTP upload/download (firmware)	Yes
Syslog (RFC 3164)	Yes
USB port for firmware and config upload/ download	Yes
LEDs	Yes
Per port	Speed, Link, Activity;
Per device	Power, system
Physical Specifications	Yes
Dimensions	170 x 135 x 48 mm (6.69x 5.31 x 1.89 in)
Weight	0.8kg (1.76 lb)
Max power (worst case, all ports used, line-rate traffic) (Watts)	16W
Iddle power consumption (all ports link-down standby) (Watts)	8W
Energy Efficient Ethernet (EEE) IEEE 802.3az	Yes (deactivated by default)
Fan	Fanless

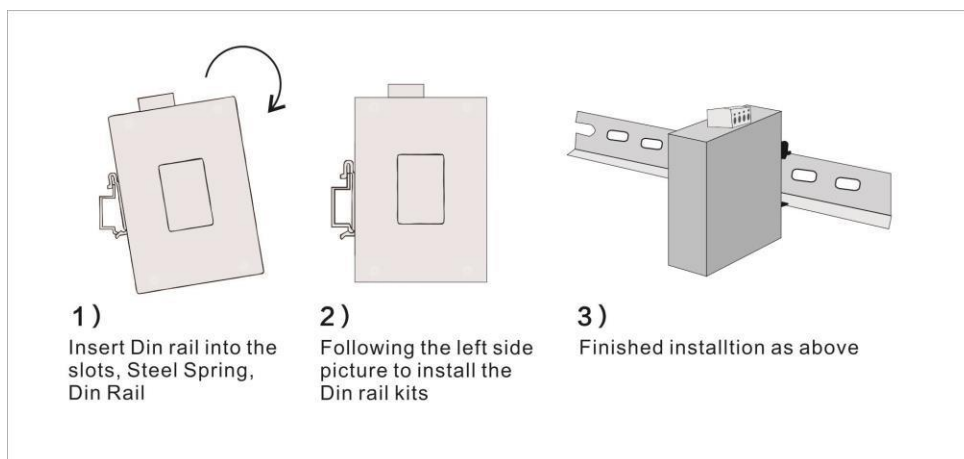| Environmental Specifications	BI8208GM2G4F
Operating	
Operating Temperature	-40° to 85°C
Humidity	95% maximum relative humidity (RH), non-condensing
Altitude	10,000 ft (3,000 m) maximum
Storage	
Storage Temperature	–40° to 85°C
Humidity (relative)	95% maximum relative humidity, non-condensing
Altitude	10,000 ft (3,000 m) maximum
Electromagnetic Emissions and Immunity	
Certifications	CE mark, commercial FCC Part 15 Class A, VCCI Class A Class A EN 55022 (CISPR 22) Class A Class A C-Tick EN 55024 CCC 47 CFR FCC Part 15, SubpartB, Class A ICES-003: 2016 Issue 6, Class A ANSI C63.4:2014 IEC 60950-1:2005 (ed.2)+A1:2009+A2:2013 AN/NZS CISPR 22:2009+A1:2010 CLASS A
Safety	
Certifications	CB mark, commercial CSA certified (CSA 22.2 #950) EN 60950-1: 2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013 IEC 60950-1:2005 (ed.2)+A1:2009+A2:2013 AN/NZS 60950.1:2015 CCC (China Compulsory Certificate)
Warranty and Support	
Hardware Limited Warranty	Limited Lifetime*
Technical Support via Phone and Email*	Limited Lifetime*
Limited Lifetime* 24x7 Online Chat Technical Support	Limited Lifetime*
Package Contents	
All models	Smart Switch Brackets and screws for DIN-Rail mounting, which are already installed in the switch； Rubber protection caps, which are already installed in the SFP sockets Installation guide

Mechanical Drawing

Applications

Installation Models

1) Insert Din rail into the slots, Steel Spring, Din Rail

2) Following the left side picture to install the Din rail kits

3) Finished installtion as above
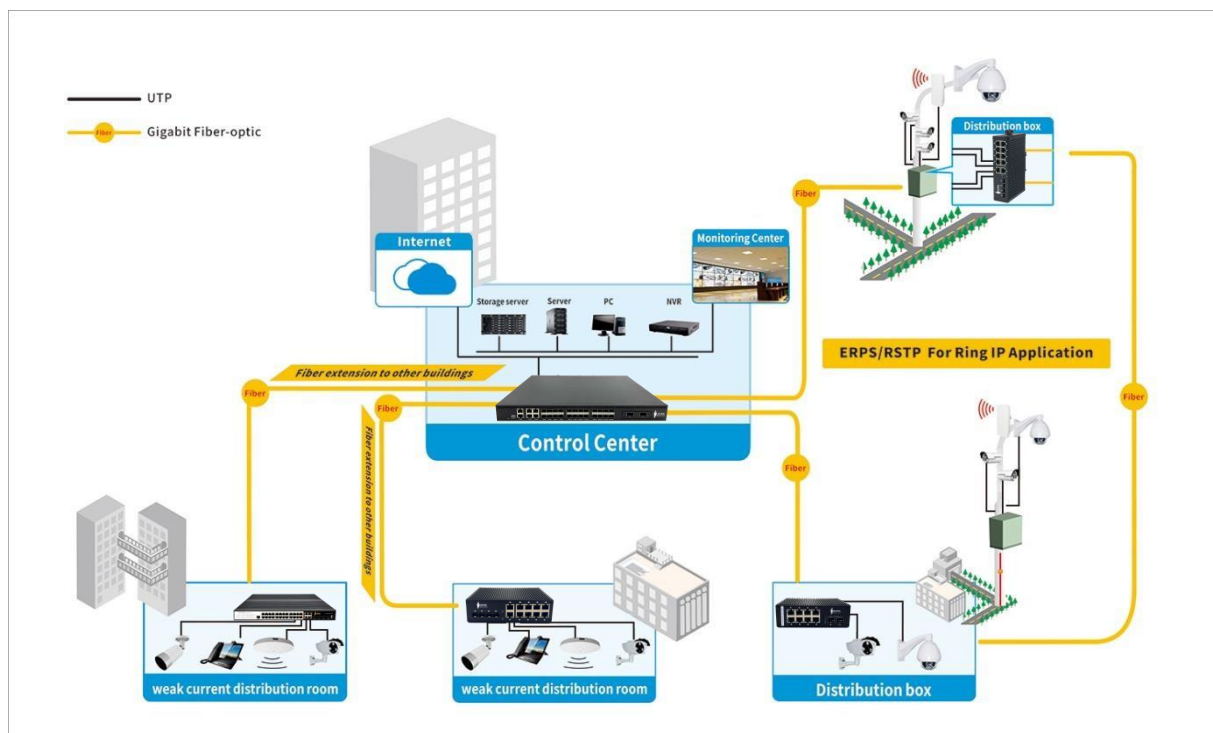
Ordering Information	
BI8208GM2G4F	8 Ports 10/100/1000Mbps Industrial Managed Switch With 2 Gigabit RJ45 and 4 SFP Uplink, Din-Rail