

# BI8216PGM4GCF-300W

## 16-Port Gigabit Industrial L2 Managed PoE Switch

### Datasheet



#### Key Features:

**Ports:** Provide 16\*10/100/1000Mbps PoE ports with 4\*10/100/1000M RJ45 and 4\*1.25Gbps SFP Combo

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

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

**Industrial Installation:** Rack mounting installation

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

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

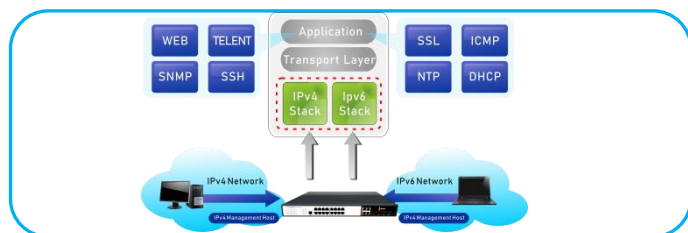
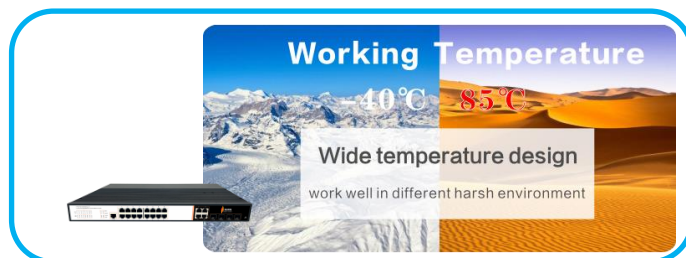
**Managed:** Support remote web managed,VLAN and storm control and IPV6 management etc.

**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 BI8216PGM4GCF-300W can be placed in almost any difficult environment.

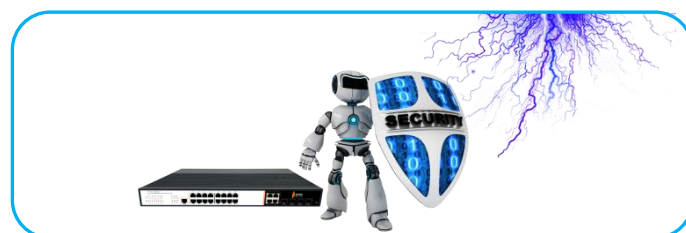


#### Cost-effective IPv6 Managed Gigabit PoE Switch Solution

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.

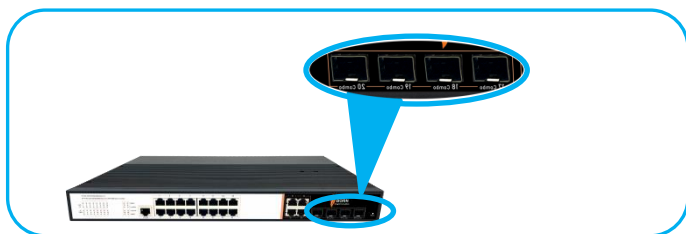
#### Surge Protection Design

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



#### 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 transmittes the date with Max 100Km distance with more economic solution



# BI8216PGM4GCF-300W

## 16-Port 10/100/1000Mbps Industrial Managed PoE Switch with 4 RJ45/SFP Combo

### Technical Datasheet

Technical Specifications		BI8216PGM4GCF-300W
10M/100M/1G RJ-45 copper ports		16
PoE / PoE+ ports		16 PoE+
1G RJ45/SFP Combo		4 pair
Console Port (For config )		Yes
Performance Specification		
CPU	Dual-Core 1GHz MIPS InterAptive CPU subsystem	
Packet buffer memory (Dynamically shared across only used ports)		8 MB
Forwarding modes		Store-and-forward
Bandwidth		64 Gbps
Priority queues		8
MAC address database size (48-bit MAC addresses)		8K
Multicast groups		1K
Number of IPv4 static routes		100
Number of IPv6 static routes		100
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)		35.72Mpps
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

L2 Services - VLANs	BI8216PGM4GCF-300W
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
Layer 2 DHCP Relay	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	512
IPv6 static routing	512

Link Aggregation		BI8216PGM4GCF-300W
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
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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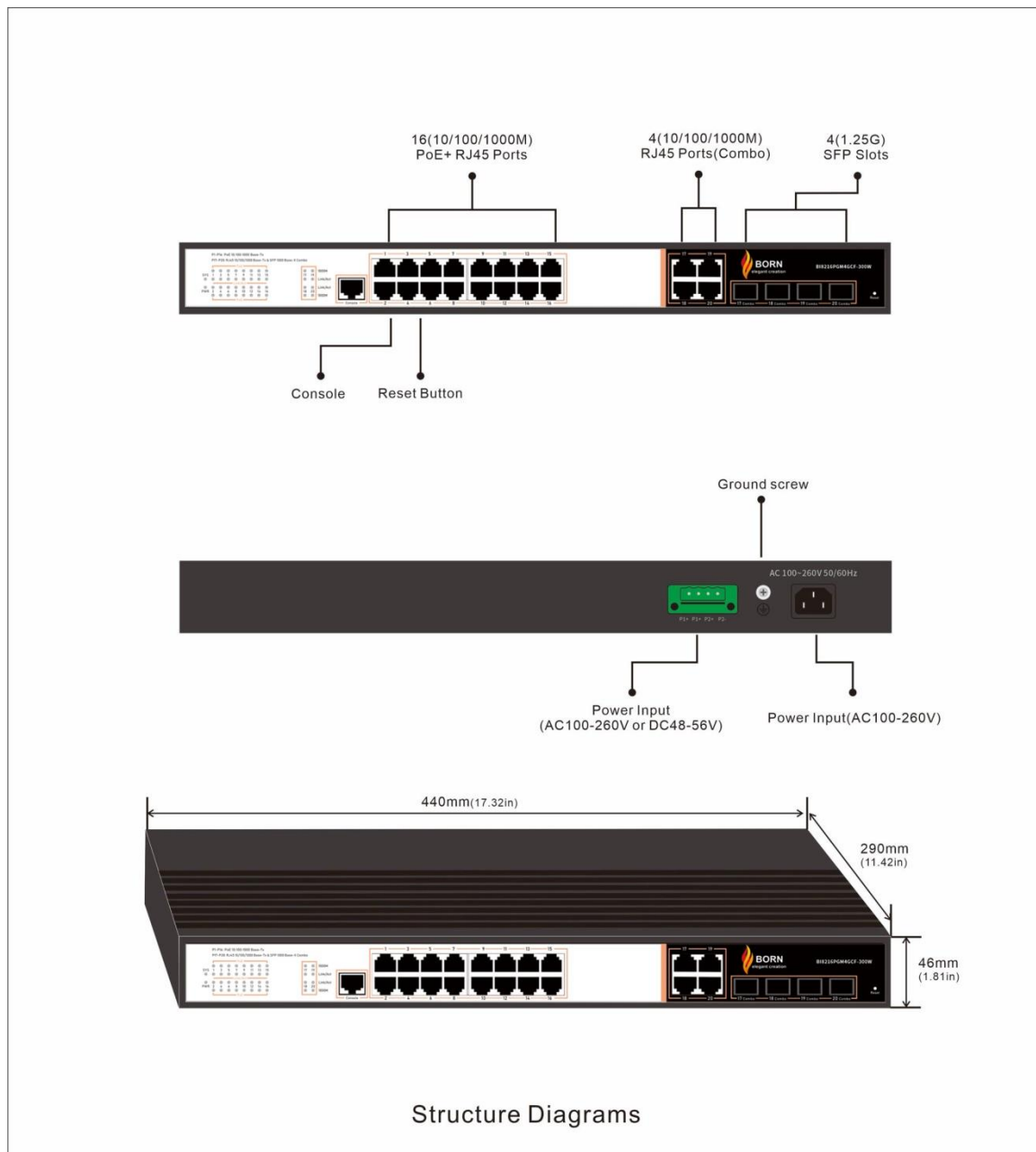
IEEE Network Protocols		BI8216PGM4GCF-300W
<ul style="list-style-type: none"><li>• IEEE 802.3 Ethernet</li><li>• IEEE 802.3u 100BASE-T</li><li>• IEEE 802.3ab 1000BASE-T</li><li>• IEEE 802.3af PoE</li><li>• IEEE 802.3at PoE+</li><li>• IEEE 802.3az Energy Efficient Ethernet (EEE)</li><li>• IEEE 802.3ad Trunking (LACP)</li><li>• IEEE 802.3z 1000BASE-SX/LX</li></ul>		<ul style="list-style-type: none"><li>• IEEE 802.3x Full-Duplex Flow Control</li><li>• IEEE 802.1Q VLAN Tagging</li><li>• IEEE 802.1AB LLDP with ANSI/TIA-1057 (LLDP-MED)</li><li>• IEEE 802.1p Class of Service</li><li>• IEEE 802.1D Spanning Tree (STP)</li><li>• IEEE 802.1s Multiple Spanning Tree (MSTP)</li><li>• IEEE 802.1w Rapid Spanning Tree (RSTP)</li><li>• IEEE 802.1x RADIUS Network Access Control</li></ul>
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		16
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; or PoE in different mode
Per device		Power, system
Physical Specifications		Yes
Dimensions		440 x 290 x 46 mm (6.69x 11.42 x 1.81 in)
Weight		5.5kg (12.13 lb)
Power Consumption (when all ports used, line-rate traffic and max PoE)		300W
Max power (worst case, all ports used, full PoE, line-rate traffic) (Watts)		16W
Idle power consumption (all ports link-down standby) (Watts)		12W
Energy Efficient Ethernet (EEE) IEEE 802.3az		Yes (deactivated by default)
Fan		Fanless

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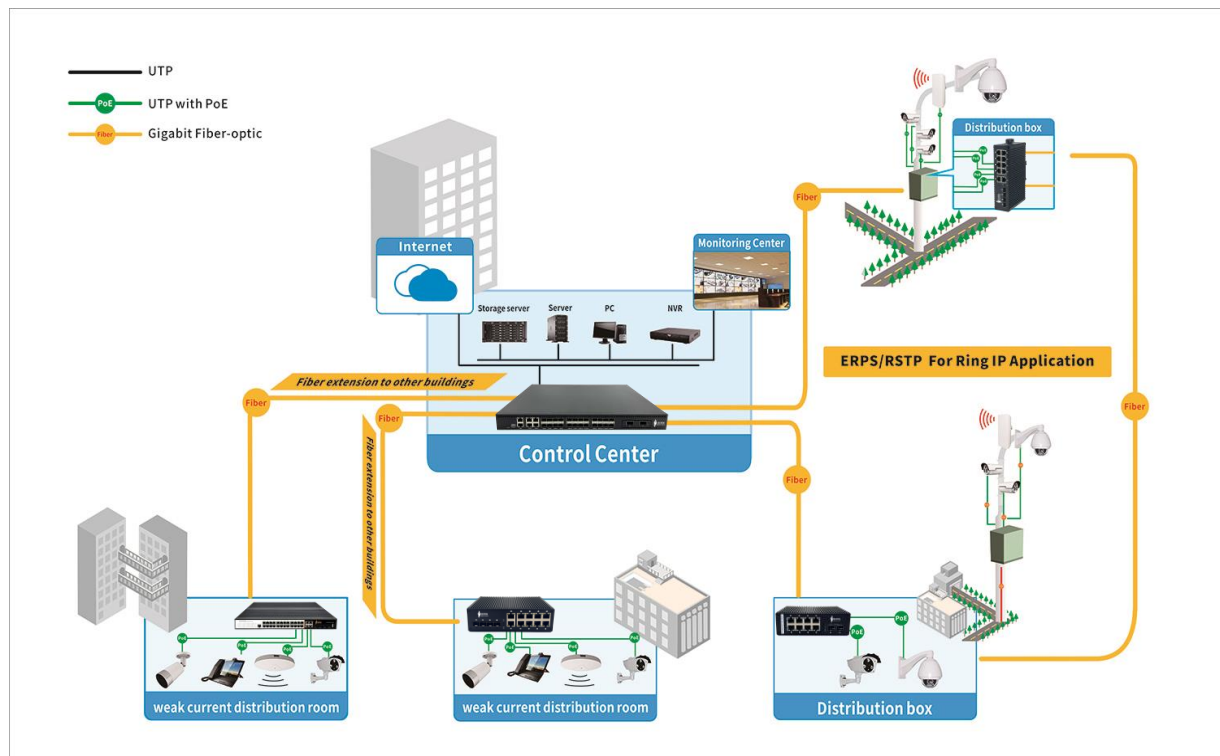
## 16-Port 10/100/1000Mbps Industrial Managed PoE Switch with 4 RJ45/SFP Combo

Environmental Specifications		BI8216PGM4GCF-300W
<b>Operating</b>		
Operating Temperature		-40° to 85°C
Humidity		95% maximum relative humidity (RH), non-condensing
Altitude		10,000 ft (3,000 m) maximum
<b>Storage</b>		
Storage Temperature		-40° to 85°C
Humidity (relative)		95% maximum relative humidity, non-condensing
Altitude		10,000 ft (3,000 m) maximum
<b>Electromagnetic Emissions and Immunity</b>		
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
<b>Safety</b>		
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)
<b>Warranty and Support</b>		
Hardware Limited Warranty		Limited Lifetime*
Technical Support via Phone and Email*		Limited Lifetime*
Limited Lifetime* 24x7 Online Chat		Limited Lifetime*
Technical Support		Limited Lifetime*
<b>Package Contents</b>		
All models		Smart Switch
		AC Power cord with C13 connector (localized to region of sale)
		Brackets and screws for rack mounting
		Rubber protection caps, which are already installed in the SFP sockets
		Installation guide

### Mechanical Drawing



### Applications



### Ordering Information

BI8216PGM4GCF-300W

16 Ports 10/100/1000Mbps Industrial Managed PoE switch With 4 Gigabit RJ45 and 4 SFP Combo Uplink,IEEE802.3af/at



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