



# SWMD-H-8GP-2BT-FBP

**L2+ Managed Industrial 8\*10/100/1000Base-T  
+ 4\*1G/2.5G/10GBase-X SFP  
+ 1\*Bypass PoE++ Switch**



## Description

The **CXR SWMD-H-8GP-2BT-FBP** is the highly reliable managed industrial Bypass PoE++ switch with 8-port 10/100/1000-T PoE, 4-port 1G/2.5G/10GBase-X SFP+ and 1 channel single fiber Bypass port. It complies with IEEE802.3af PoE, IEEE802.3at PoE+, IEEE802.3bt PoE++ standard protocol, the Max power output consumption per port can reach 90W (1-2 ports), which is the ideal solution for those high power consumption industrial networking PDs. In normal operation, it is a L2+ managed PoE++ switch. It supports ERPS redundant network and the self-recovery mechanism less than 20ms on full load which allows you to scheme a reliable Ethernet network by building a redundant ring topology as your back-up solution. IPv4/IPv6 static routing, DHCP server, robust Layer 2 management and secure functions can help users expand their networks quickly and efficiently. However, when it encounters a power failure or internal malfunction, the bypass function is activated through the integrated bypass optical switching module, which allows the network connections passing through the switch to remain uninterrupted, ensuring that the data can still flow directly between the connected devices, as if the switch were not in the path at all.

**CXR SWMD-H-8GP-2BT-FBP** is also the high cost-effective easy-to-use device, which provides essential industrial Ethernet networking function, including wide range power input 44-57VDC, redundant power design with polarity reverse protection, robust IP40 fan-less housing with Din-rail installation, wide operation temperature from -40°C to 80°C as well as high-level EMI/EMC capability. It is the best choice for heavy industrial factory, transportation, oil & gas, chemical, IP Surveillance and processing automation area where environmental conditions are harsh and critical.

8X10/100/1000 BASE-T  
RJ45 POE

4X1G/2.5G/10G BASE-X  
SFP+

1 CHANNEL SINGLE LC  
BYPASS

FIBER BYPASS LC TYPE,  
RECOVERY 10MS (MAX)

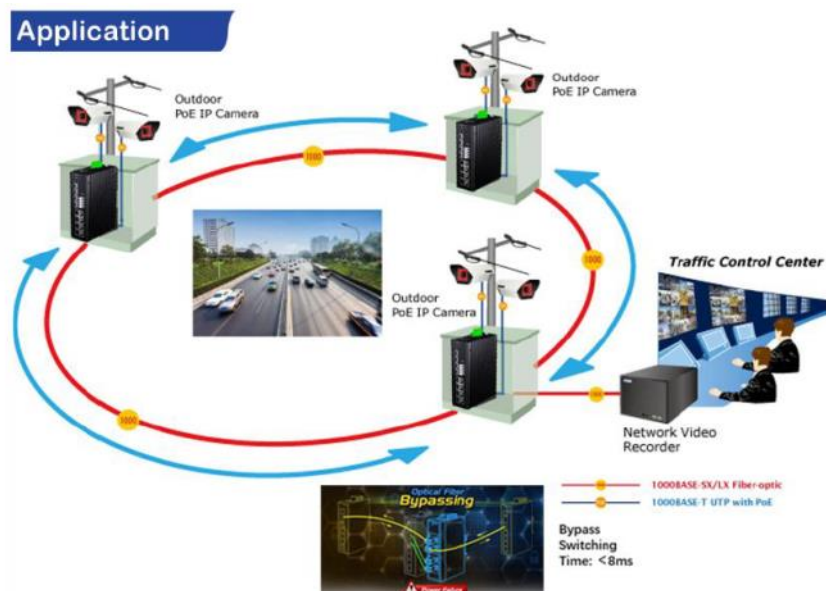
MAINTAIN NETWORKS  
CONTINUITY IF POWER  
LOSSES

COMPLIES WITH  
IEEE802.3AF/AT/BT POE  
STANDARD, 1-2 PORTS  
SUPPORT POE++ 60-90W

LAYER 3 FEATURES:  
SUPPORT IPV4/IPV6  
STATIC ROUTING, DHCP  
SERVER

SUPPORT G.8032 ERPS  
PROTOCOL, RECOVERY  
TIME ≤20MS

## Application Diagram



## Specifications

Interface	Fiber ports	Copper RJ45 ports
		4
Ethernet	8*10/100/1000Base-T RJ45 PoE/PoE+, 1-2 ports support PoE++ 4*1G/2.5G/10GBase-X SFP+	
Management port	1*RJ45 Console port (115200, 8, N, 1)	
<b>Bypass features</b>		
Connector type	LC Female Connector	
Bypass Channels	1 channel single LC	
Optical Switching Time	≤ 10ms, power failure <—> power normal	
Insertion Loss	1.2dB (max)	
Standard	IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX Ethernet IEEE 802.3ab 1000Base-T Ethernet IEEE 802.3z 1000Base-X Ethernet IEEE 802.3bz 2.5GBASE-X IEEE 802.3ae 10Gb/s Ethernet IEEE802.3x Flow Control and Back Pressure IEEE 802.1D Spanning Tree Protocol IEEE 802.1w Rapid Spanning Tree Protocol IEEE 802.1Q VLAN ITU-T G.8032 ERPS IEEE 802.1X Port Authentication Network Control IEEE 802.1ab LLDP IEEE 802.3ad LACP IEEE 802.3af PoE IEEE 802.3at PoE+ IEEE 802.3bt PoE++	
<b>LED Indicators</b>		
P (Power indicator)	Off: the device is power off or failed	On: the device power on is normal
S (System status indicator)	Blinking: device initialization	On: device on normal operation

<b>1-8 (Copper ports indicators) Green</b>	Off: ports link down
	On: ports link up
	Blinking: data on TX/RX
<b>9-12 (Fiber ports indicators) Green</b>	Off: ports link down
	On: ports link up
	Blinking: data on TX/RX
<b>Power parameter</b>	
<b>Input Voltage</b>	44-57VDC(802.3af) 52-57VDC(802.3at/802.3bt) redundant power input
<b>Input current</b>	5.8A Max
<b>Total power consumption</b>	Full loading without PoE ≤15W PoE power budget ≤240W
<b>Connector</b>	Removable 4-pin terminal block
<b>Reverse polarity protection</b>	Support
<b>Over-voltage protection</b>	Support
<b>Over-current protection</b>	Support

<b>Layer 2 functions</b>	
<b>Port aggregation</b>	Support GE port aggregation Support 2.5GE aggregation Support 10GE aggregation Support static aggregation Support LACP dynamic aggregation Up to 64 aggregation groups and up to 8 ports per group
<b>Port features</b>	Support IEEE802.3x flow control, Support interface counters, Support port isolation, Port mirroring ( One-to-One, Many-to-One) Support loop detection(Port-based; VLAN-based) Support broadcast storm suppression(broadcast; unknown multi-cast; unknown unicast)
<b>Mac-address table management</b>	Support static Mac-address management Support dynamic Mac-address Management Support filtering Mac-address Support MAC limit based on port and VLAN Support MAC flapping based on port and VLAN
<b>VLAN</b>	Support access mode Support trunk mode Support hybrid mode
<b>VLAN classification</b>	Mac Based VLAN IP Based VLAN Protocol Based VLAN
<b>GVRP</b>	Normal mode Fixed mode Forbidden mode
<b>QinQ</b>	Port-based QinQ VLAN-based QinQ Flow-based QinQ
<b>LLDP</b>	LLDP (Link Layer Discovery Protocol)

<b>Ring network protocol</b>	Support IEEE802.1D-STP Support IEEE802.1W-RSTP Support IEEE802.1S-MSTP
	Support G.8032 ERPS protocol, single ring, sub Ring and major ring Recovery time ≤20ms
<b>L2 Multicast</b>	
<b>IGMP snooping</b>	Support IGMP snooping
<b>Group address</b>	Support group address
<b>Security functions</b>	
<b>ACL</b>	IP Standard ACL MAC extend ACL IP extend ACL IPv6 ACL
<b>QoS</b>	Support QoS Class, remarking Support SP, WRR queue scheduling Ingress port-based rate-limit Egress port-based rate-limit Support policy-based QoS
<b>802.1x</b>	Port access control Mac-address access control RADIUS server
<b>Port-security</b>	Port-security
<b>IP source guard</b>	IP Port/MAC binding

<b>ARP-check</b>	Support ARP-check and ARP packet filtering for illegal users
<b>Access control</b>	Support Telnet/SSH/HTTP/HTTPS user access control
<b>Management &amp; Maintenance functions</b>	
<b>User Management</b>	Support password protection Support user authorization management
<b>SNMP</b>	Supporting SNMP V1/V2C/V3 version
<b>Web Management</b>	Web Management Support HTTP V1.1 Support HTTPS
<b>CLI management</b>	Console/Telnet command line management
<b>RMON</b>	Support RMON(Remote Monitoring) alarm
<b>Firmware upgrade</b>	Firmware upgrade
<b>Fault Detection</b>	Ping/Traceroute Dying gasp Support optical transceiver DDM function
<b>Cable detection</b>	Support copper port cable detection
<b>PoE management</b>	Support 802.3af/802.3at/802.3bt Support PD watchdog Support PoE priority management Support Max PoE power configuration for each port Support alarm threshold configuration Support reserved power configuration
<b>NTP</b>	Network Time Protocol

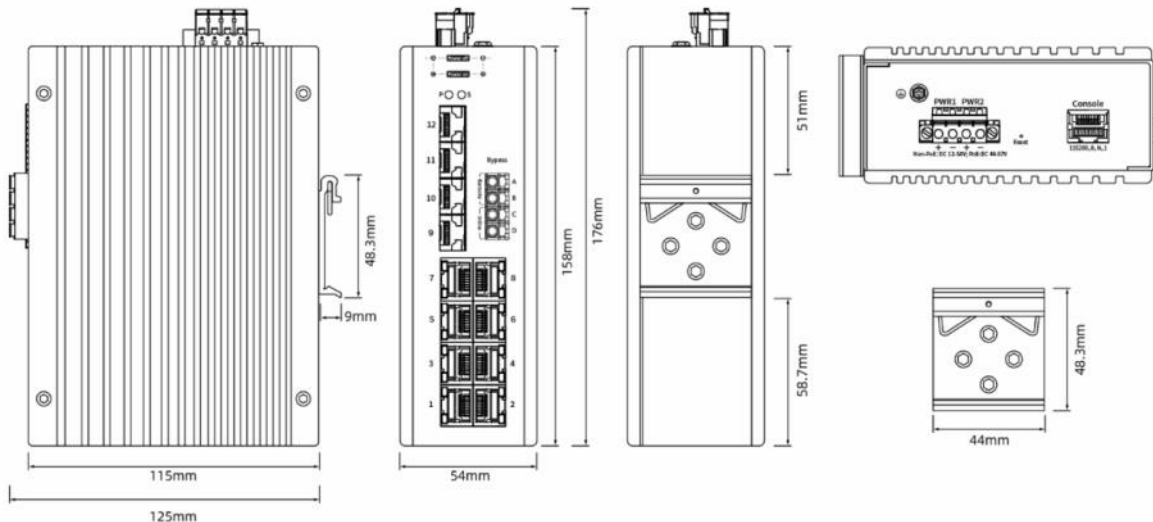
<b>Syslog/Debug</b>	Syslog/Debug Syslog send to three servers
<b>Configuration import/export</b>	Support FTP/TFTP remote import/export
<b>Dual partition management</b>	Support dual partition switching
<b>Application Protocol Functions</b>	
<b>DHCP Snooping</b>	DHCP snooping trust port Support remote-id/circuit-id configuration DHCP option-82
<b>DHCP client</b>	Support DHCP client
<b>Telnet Server</b>	Support telnet server
<b>Telnet Client</b>	Support telnet client
<b>SSH Server</b>	Support SSH server
<b>TACACS</b>	Support TACACS (the terminal access controller accesses the control system)
<b>SFLOW</b>	Support network traffic analysis
<b>TFTP</b>	Support TFTP Client
<b>Layer 3 functions</b>	
<b>ARP</b>	ARP table aging
<b>IPv4/IPv6</b>	Static routing

Switching features	
Switching capacity	96Gbps
Packet forwarding rate	142.8Mpps
MAC address table	16K
VLAN	4K
Buffer	12Mbits
Forwarding delay	<5us
Jumbo Frame	Support 10Kbytes
MDX / MIDX	Support
Watchdog	Support
Mechanical structure	
Case protection	IP40
Installation method	Din-Rail
Dimension (W*D*H)mm	54*115*158mm
Weight	1.42kg
Operating environment	
Operating temperature	-40°C ~ +80°C
Storage / Transportation temperature	-40°C ~+85°C
Relative humidity	Operation humidity : 10% - 90% RH Storage humidity : 5% - 95% RH
Industrial Standard	
EMS	Surge protection of power: IEC 61000-4-5 6KV/4KV (8/20us) Surge protection of Ethernet ports: IEC 61000-4-5 6KV/2KV (10/700us) RS: IEC 61000-4-3 80 MHz-1 GHz: 10 V/m EFT: IEC 61000-4-4 4K/2K CS: IEC 61000-4-6 10V ESD: IEC 61000-4-2 Contact: 8K; Air: 15K
EMI	FCC Part 15B Class A
Shock	IEC 60068-2-27
Free fall	IEC 60068-2-32
Vibration	IEC 60068-2-6
Certification	CCC/CE/UKC/RoHS/REACH/FCC
MTBF	> 200 000 hours
Warranty	2 years

## Ordering Information

Reference	Description
<b>SWMD-H-8GP-2BT-FBP</b>	L2+ Managed industrial Bypass switch with 8*10/100/1000Base-T RJ45 ports, 4*1G/2.5G/10GBase-X SFP slots and 1 channel single fiber bypass port, complies with IEEE802.3af, IEEE802.3at and IEEE802.3bt standard, 1-2 ports support PoE++ 60-90W, DC44-57V input, redundant dual power supply, Din-rail installation. Operation temperature: -40℃~+80℃

## Size & Dimensions



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