

GEMS2-8T+4X

EDGE NETWORKS

8+4 Port Industrial Managed Gigabit Ethernet Switch with 10G uplink and optional POE



PRODUCT OVERVIEW



- 8x Gigabit Ethernet ports with optional IEEE 802.3at or IEEE 802.3bt PoE
- 4x 1/10 Gigabit Ethernet SFP+ Slot
- Built for harsh environments and wide temperature range applications
- RSTP, MSTP, ERPS, MRP, LACP for Network Redundancy
- QoS CoS/DSCP to increase determinism
- Supports IGMP Snooping v1/v2/v3, up to 512 groups
- DHCP Relay Option 82 for policies IP address assignment
- SNMP v1/v2c/v3 for network management
- Supports Storm Protection
- USB storage for configuration-free replacement
- Supports industrial automation protocols Ethernet/IP and Modbus TCP
- Supports PoE PD Alive Check function for PoE Device Power Cycle (* PoE units only)

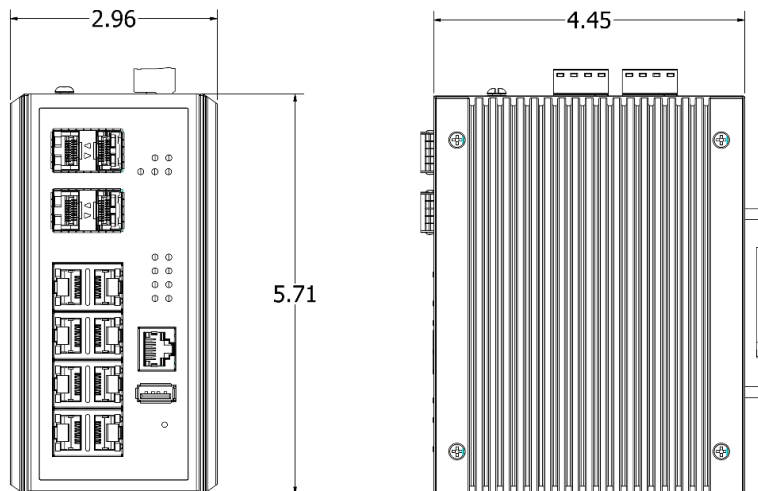
ORDERING INFORMATION

PART CODE	DESCRIPTION
GEMS2-8T+4X	Gigabit Ethernet Managed Switch Layer 2 with 8TX 4x1/10G SFP ports
GEMS2-8T+4X/AT	Gigabit Ethernet Managed Switch Layer 2 with 8TX 4x1/10G SFP ports and 8x30W PoE
GEMS2-8T+4X/BT2	Gigabit Ethernet Managed Switch Layer 2 with 8TX 4x1/10G SFP ports and 4x30W + 2x90W PoE
GEMS2-8T+4X/BT4	Gigabit Ethernet Managed Switch Layer 2 with 8TX 4x1/10G SFP ports and 4x60W PoE

RECOMMENDED ACCESSORIES

SFP-XS2L-1313-10	SFP – 10G, SM, 2 fiber, LC, 1310 nm, 10km
SFP-GS2L-1313-20	SFP – 1000M, SM, 2 fiber, LC, 1310 nm, 20km

OUTLINE (INCHES)



SPECIFICATIONS

TECHNOLOGY

Standards	IEEE 802.3 10BaseT
	IEEE 802.3u 100BaseTX
	IEEE 802.3ab 1000BaseT
	IEEE 802.3z 1000BaseX
	IEEE 802.3x Flow Control
	IEEE 802.3af Power over Ethernet
	IEEE 802.3at / IEEE 802.3bt PoE (*)
	IEEE 802.3az Energy-Efficient Ethernet
	IEEE 802.3ad/802.1AX LACP
	IEEE 802.1D Spanning Tree Protocol
	IEEE 802.1w Rapid STP
	IEEE 802.1s Multiple STP
	ITU-T G.8032 / Y.1344 ERPS
	IEC 62439-2 Media Redundancy Protocol
	IEEE 802.1Q VLAN Tagging
	IEEE 802.1ad Stacked VLANs
	IEEE 802.1p Class of Service
IEEE 802.1X Network Authentication	
IEEE 802.1AB LLDP	
IEEE 1588 PTP	

Processing Type Store and Forward

SWITCH PROPERTIES

Switch Fabric 96 Gbps

Priority Queues 8 Queues

Jumbo Frame 9216 bytes

MAC Table Size 16K

Packet Buffer 12 Mbits

VLAN Table Size 4094

IGMP Group 512

ACL Group 512

SOFTWARE FEATURES

Network	RSTP, MSTP, G.8032 ERPSv2, IEC 62439-2
Redundancy	MRP, Port Trunking with LACP
Security	802.1X, RADIUS, TACACS+, SSL, SSH
Management	IPv4, IPv6, Web, Telnet, Serial Console, CLI, SNMP v1/v2c/v3, uPnP
Diagnostics	RMON, SNMP Inform/Trap, Syslog, SMTP, Port Mirroring, LLDP, RSPAN
Configuration	DHCP Server/Client, Relay Option 82, TFTP, USB
Filter	802.1Q VLAN, Q-in-Q, IGMP Snooping v1/v2/v3, IGMP Querier, Independent Vlan Learning
Time Sync.	NTP, IEEE1588v2 OC (Software Timestamp), TC (Hardware Timestamp)
QoS	CoS, DSCP, WRR/SPQ Queuing, Storm Protection

Industrial Profiles Ethernet/IP, Modbus TCP, Profinet

PoE(*) Power Status, Monitoring, Scheduling, PD Alive check

INTERFACE

RJ45 Port	8x 10/100/1000T(x) with 4x PoE++, auto negotiation speed duplex mode, auto MDI/MDI-X MDI MODE A PoE+ wiring(*)
Fiber Port	4x 1/10 Gigabit Ethernet SFP+ Slot
LED Indicators	PWR1, PWR2, Fault, Ring Master, Ring State Ports: Link/Active with high speed(Green), low speed(Amber) PoE(*): Output Power
Alarm Contact	1x relay output with current carrying capacity of 1A @ 24 VDC 1x isolated input from the electronics.
Digital Inputs	+13 to +30V for state "1" -30 to +3V for state "0" Max. input current: 8mA
Button	Multiple function reset button
Serial Console	1x RS232 in RJ45 connector with console cable, 115.2Kbps, 8N1
Storage	1x USB 2.0 for firmware update, config backup, restore, boot up and syslog

SPECIFICATIONS (CONTINUED)

POWER REQUIREMENTS

Operation	Std	12-48VDC	redundant dual
Voltage	PoE	48-57VDC	inputs
Power	Std	0.66A@24VDC	
Consumption	PoE	0.42@48VDC (switch only)	
Connection	1x removable 4-contact terminal block		
Protection	Overload Current Protected, Reverse Polarity Protected		
PoE Budget	30W/60W/90W per Channel, 240W max		

MECHANICAL CONSTRUCTION

Enclosure	Aluminum
Protection Class	IP30
Dimensions (WxHxD)	2.96 x 5.71 x 4.45 inches 75 x 145 x 113 mm
Weight	0.90 kg
Mounting	DIN-Rail Mounting, Optional Wall Mounting Kits

ENVIRONMENTAL LIMITS

Operating Temperature	-40°C ~ 75°C (-40°F ~ 167°F) 1G
Storage Temperature	-40°C ~ 60°C (-40°F ~ 140°F) 10G
Ambient Relative Humidity	5 to 95%, (Non-Condensing)

REGULATORY APPROVALS

EMI	FCC Part 15 Subpart B Class A CE EN 55032 Class A
EMS	IEC61000-4-2 (ESD) IEC61000-4-3 (RS) IEC61000-4-4 (EFT) IEC61000-4-5 (Surge) IEC61000-4-6 (CS) IEC61000-4-8 (Magnetic Field)
Free Fall	IEC60068-2-32
Shock	IEC60068-2-27
Vibration	IEC60068-2-6
Green	RoHS Compliant UL 60950-1/62368 (Pending)
Certifications	IEC 61000-6-2 IEC 61000-6-4
MTBF	>100,000 hours
Warranty	5 Years

Notes:
1. In a continuing effort of improvement and updating technology, product specifications are subject to change without notice

CONTACT US

EMAIL

SALES@EDGE-NETWORKS.US
TECHSUPPORT@EDGE-NETWORKS.US
CUSTOMERSERVICE@EDGE-NETWORKS.US

WEB

WWW.EDGE-NETWORKS.US

ADDRESS

412 BRANDAM LANE
SUITE 103
CHARLESTON, SC 29492

PHONE

TEL: 843 654-9266
FAX: 843 654-9267

EDGE NETWORKS

WWW.EDGE-NETWORKS.US

