

16+8+4 Port Industrial Managed Gigabit Ethernet Switch



PRODUCT OVERVIEW



- 16x Gigabit Ethernet ports
- 8x Gigabit combo ports
- 4x 1000F(x) 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

ORDERING INFORMATION

PART CODE DESCRIPTION

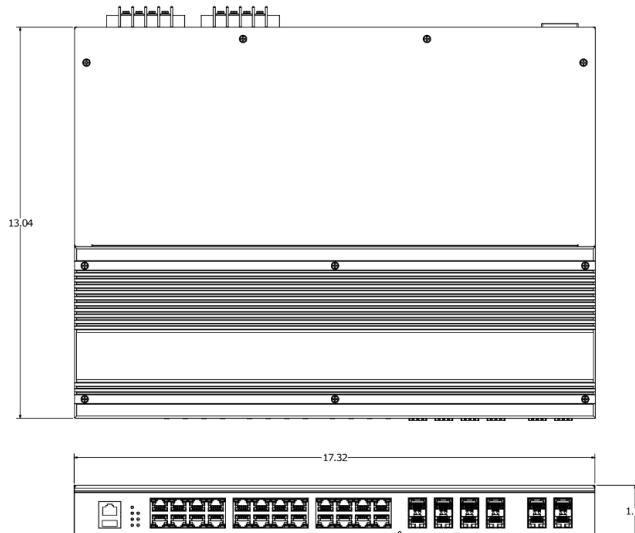
GEMS2-16T+8C+4G Gigabit Ethernet Managed Switch Layer 2 with 16TX, 8 combo and 4FX ports

RECOMMENDED ACCESSORIES

SFP-FS2L-1313-20 SFP – 100M, SM, 2 fiber, LC, 1310 nm, 20km

SFP-GS2L-1313-10 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 802.3az 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
	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	56 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 Redundancy	RSTP, MSTP, G.8032 ERPSv2, 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

INTERFACE

RJ45 Port	16x 10/100/1000T(x), auto negotiation speed duplex mode, auto MDI/MDI-X
Combo Port	8x 10/100/1000T(x) with 100/1000 SFP combo port, auto media detect
Fiber Port	4x 1000F(x) SFP Slot
LED Indicators	PWR1, PWR2, Fault, Ring Master, Ring State Ports: Link/Active (Green), Speed(Amber)
Alarm Contact	1x relay output with current carrying capacity of 1A @ 24 VDC
Digital Inputs	1x isolated input from the electronics. +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 storage for firmware update, configuration backup, restore, boot up and syslog

SPECIFICATIONS (CONTINUED)

POWER REQUIREMENTS

Operation Voltage	90-264VAC, 12-48VDC redundant dual inputs
Connection	AC socket, DC 4-contact terminal block
Power Consumption	0.46A @ 110VAC 0.86A @ 24VDC
Protection	Overload Current Protected, Reverse Polarity Protected

MECHANICAL CONSTRUCTION

Enclosure	Aluminum/Steel
Protection Class	IP30
Dimensions (WxHxD)	17.32 x 1.73 x 13.04 inches 440 x 44 x 331 mm
Weight	4.80 kg
Mounting	Rack Mounting

ENVIRONMENTAL LIMITS

Operating Temperature	-40°C ~ 75°C (-40°F ~ 167°F)
Storage Temperature	-40°C ~ 85°C (-40°F ~ 185°F)
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
Certifications	UL 60950-1/62368 (Pending)
MTBF	>100,000 hours
Warranty	5 Years

Notes:

- In a continuing effort of improvement and updating technology, product specifications are subject to change without notice

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