



ProSwitch® PoE Managed Gigabit Switches

Models: **GSM-2112-POE135**
GSM-2112-POE185

Key Highlights

- ▶ 12-port switch with 10/100/1000Base-TX plus 2 mini GBIC slots for 1000Base-SX and LX fiber
- ▶ Support PoE (Power over Ethernet)
- ▶ Add fiber SFPs as you need them
- ▶ Choose between managed and web smart models
- ▶ Managed models provide:
 - Access via web, Telnet or CLI
 - LACP
 - GVRP/GARP
 - IGMP snooping
 - STP/RSTP (802.1d/1w/1s)
 - SNMP V1, V2C
 - RMON
 - Enterprise MIB
 - QoS
 - Port mirroring
 - VLANs
 - Port trunking
- ▶ Rack mountable
- ▶ Backed by Waters' limited lifetime warranty

WATERS NETWORK SYSTEMS
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GSM Series Ethernet Switches 10/100/1000Mbps Switches

**GSM-2112 switch with
12 10/100/1000-TX ports
2 mini GBIC slots**



Waters Network Systems' GSM PoE models provide 12 10/100/1000Base-TX ports for your wiring closet or small workgroups with two optional mini GBIC slots for fiber Gigabit connectivity. PoE ports provide power to end devices such as wireless access points or VoIP phones directly through existing LAN cables. Waters' GSM series provides a cost savings migration path from 10 to 1000Mbps switched Ethernet.

Features and Benefits

- **PoE for your infrastructure.** Waters' PoE models are 802.3af compliant. Deliver data, voice, and video along with electrical power through a standard Category 5 or higher cable. Supports per port power consumption monitoring. Smart feature for power device (PD) on/off, PD detection, power level, PD status and power feeding priority.
- **Dual media for flexible fiber connectivity.** Optional SFP modules are available for short, medium or long haul fiber GIG connectivity. Use of the fiber module disables the corresponding 10/100/1000Base-TX port. Use the additional mini GBIC slots for flexible Gigabit fiber deployment.
- **QoS supports layer 4 classification.** In addition to 802.1p Priority Queue support, the GSM switches also support programmable higher layer classification and prioritization used to enable enhanced QoS for real time applications based on information passed from Layer 2 to Layer 4 such as VoIP.
- **Q-in-Q VLAN for performance and security.** VLAN is used to isolate traffic between different users and thus provides better security. Limiting the broadcast traffic to within the same VLAN broadcast domain also enhances performance. The GSM models support advanced VLAN techniques such as 802.1Q.
- **802.3ad Port Trunk for Bandwidth Aggregation.** Combine the Gigabit ports together to create a multi-link load-sharing trunk. Up to six Gigabit ports can be set up per trunk for bandwidth up to 12Gbps. All traffic is aggregated based on MAC addresses, thus balancing the traffic load. The switch supports up to six trunking groups which can be used for switch-to-switch cascading.
- **802.1x Access control for improved network security.** The 802.1x function enables user authentication for each network access attempt. Port security allows you to limit the number of MAC addresses per port for better control. Static MAC addresses can be defined for each port to ensure only registered workstations are allowed access. By enabling both of these features, you can establish an access mechanism based on user and workstation identities, as well as control the number of access stations.
- **Rapid Spanning Tree.** For mission critical environments with multiple switches supporting STP, you can configure the switches with a redundant backup bridge path. This feature assures the timely and accurate delivery of all data, voice and video packets.



GSM-PoE Ethernet Switches

ORDERING INFORMATION

Model	Description
Managed Ethernet Switch	
GSM-2112-POE135	12 port POE managed switch with 12 10/100/1000Base-TX RJ45 ports plus 2 slots for 1000Base-SX or LX fiber with 135 watts PoE power
GSM-2112-POE185	12 port POE managed switch with 12 10/100/1000Base-TX RJ45 ports plus 2 slots for 1000Base-SX or LX fiber with 185 watts PoE power
SFP Fiber Modules	
SFP-1000SXLC	1 port 1000Base-SX MM fiber module with LC connector
SFP-1000LXLC-10	1 port 1000Base-LX SM (10km) fiber module with LC connector
SFP-1000LXLC-30	1 port 1000Base-LX SM (30km) fiber module with LC connector

SPECIFICATIONS

OPERATIONAL CHARACTERISTICS:

- MAC Address Table
 - ▶ All Models: 8K
- Switching Mode
 - ▶ Store-and-forward
- Memory Buffer Size
 - ▶ 208KB
 - ▶ Jumbo frame support
- Performance
 - ▶ Non-blocking
 - ▶ Auto negotiation
 - ▶ Auto-MDIX
 - ▶ Back pressure flow control for half duplex
 - ▶ Flow control for full duplex

MANAGEMENT FUNCTIONS:

- ▶ Web-based and SNMP
- ▶ Port setting for duplex and speed
- ▶ Port trunking (6 groups)
- ▶ Port based and tagged VLANs (up to 256)
- ▶ IGMP snooping
- ▶ 802.1x access control
- ▶ GVRP/GARP
- ▶ Port mirroring
- ▶ Broadcast storm suppression
- ▶ QoS
- ▶ LACP
- ▶ STP/RSTP
- ▶ Enterprise MIB
- ▶ RFC1213MIB (MIB-II)
- ▶ RFC1757 RMON MIB
- ▶ RFC1493 Bridge MIB
- ▶ RFC1643 Ethernet MIB
- ▶ RMON
- ▶ Virtual Stacking Management (VSM)

NETWORK STANDARDS:

- ▶ IEEE 802.3
- ▶ IEEE 802.3u
- ▶ IEEE 802.3ab
- ▶ IEEE 802.3af
- ▶ IEEE 802.3z
- ▶ IEEE 802.3x
- ▶ IEEE 802.1q
- ▶ IEEE 802.1p

PoE SPECIFICATIONS:

- ▶ Supports PoE (PSE) on all Gigabit ports
- ▶ Full power support per PoE port
- ▶ Power through RJ45 pins 1, 2, 3 and 6
- ▶ LED indicators for PoE ready and activity
- ▶ 185 watts = up to 15.4 watts per port
- ▶ 135 watts = up to 11.25 watts per port
- ▶ Auto detect powered device and consumption levels
- ▶ Supports per port power consumption monitoring
- ▶ Circuit protection to prevent power interference between ports
- ▶ Supports per port PoE state setting
- ▶ Supports per port power priority setting
- ▶ Smart feature for:
 - PD on/off
 - PD detection
 - Power level
 - PD status
 - Power feeding priority

EMI/SAFETY COMPLIANCE:

FCC Part 15 Class A & CE Mark Approval

NETWORK CABLE CONNECTORS:

- RJ45 shielded female ports
 - ▶ 10/100/1000Mbps: CAT5 UTP or better
 - ▶ MM or SM with LC connectors

POWER SUPPLY:

- Input Voltage
- Internal power supply
 - ▶ 100 to 240 VAC, 50 to 60Hz
- Total Power for PoE
 - ▶ 185W or 135W

OPERATING ENVIRONMENT:

- Ambient Temperature:
 - ▶ 32° to 122°F (0° to 50°C)
- Ambient Humidity:
 - ▶ 5% to 90% (non-condensing)

MECHANICAL:

- Enclosure:
 - ▶ Rack mount
 - ▶ Cooling Method: Internal Fan

PHYSICAL CHARACTERISTICS:

- Dimensions
 - ▶ 8.31 x 17.40 x 1.73 in
 - ▶ 209 x 442 x 44mm
- Weight:
 - ▶ 9.26lbs (4.2kg)

WARRANTY:

Limited Lifetime