



**ProSwitch® GSM**  
**Managed Gigabit Switch**  
**with PoE Model**

**Model: GSM3112**  
**GSM3112-POE**

**Key Highlights**

- ▶ 12 port 10/100/1000Base-TX switch with 2 slots for 100Base-FX or 1000BaseSX/LX SFP fiber modules (12 useable ports)
- ▶ Energy Efficient
  - IEEE 802.3az
  - Uses low-power technology
  - Adjusts signal strength based on cable length
- ▶ PoE Functions
  - Supports IEEE 802.3at high power PoE
  - Up to 30 watts of power per port
  - Connect IP telephones, cameras and wireless APs
- ▶ Advanced Network Management
  - IPv4 and IPv6 support
  - SNMP
  - LLDP
  - S-Flow
  - SSL/SSH
  - ACLs
  - Guest VLANs
  - IP Source Guard
  - RADIUS/TACACS
  - Private VLAN Edge (PVE)
- ▶ Convection cooled for quiet operation
- ▶ Available with or without security housing
- ▶ Backed by Waters' limited lifetime warranty

**WATERS NETWORK SYSTEMS**  
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**GSM3112 Ethernet Switch**  
10/100/1000Mbps Switch



GSM3112-SH



GSM3112

**Waters Network Systems' GSM3112** models are layer 2+ managed switches that provide the ultimate in flexibility for small to medium sized workgroups. All models are compact twelve port switches that deliver power, performance and reliability in a cost-effective, space saving design. The GSM3112-POE models provides up to 30 watts PoE power per port.

**Features and Benefits**

- **Device management software.** The GSM3112 models incorporate an intuitive, web-based interface used to access the management functions. CLI access is also available.
- **Link Layer Discover Protocol (LLDP).** The GSM3112 supports the IEEE 802.1ab standards based discovery protocol and provides vendor-independent device discovery. LLDP not only simplifies switch deployment and location of devices, but it can also be used as a troubleshooting, monitoring and firmware management tool.
- **QoS support.** The GSM3112 includes embedded QoS intelligence used to prioritize services such as voice, easily unified deployments and helps ensure consistent network performance for all services.  
  
The voice VLAN capabilities allow any IP phone to be plugged into the IP telephony network and receive an immediate dial tone. The switch will configure the device with the specific VLAN and QoS parameters to prioritize the voice traffic easily.
- **Network security.** The GSM3112 provides 802.1x which 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.
- **Power savings features.** The GSM3112 delivers green power technology by using the Energy Efficient Ethernet (EEE) option. EEE reduces power usage when there is a very low traffic utilization (or no traffic).

EEE works by powering down circuits when there is no traffic, and automatic PoE power shutoff is invoked when a line is down or set with the PoE scheduling function. Embedded intelligence is used to adjust power strength based on cable length.



## GSM3112-Ethernet Switch

### ORDERING INFORMATION

Model	Description
<b>10/100/1000Mbps Managed Ethernet Switch</b>	
GSM3112	12-port managed switch with 12 10/100/1000Base-TX ports plus 2 ports for 100Base-FX or 1000BaseSX/LX SFP fiber modules (12 useable ports)
GSM3112-SH	12-port managed switch with 12 10/100/1000Base-TX ports plus 2 ports for 100Base-FX or 1000BaseSX/LX SFP fiber modules (12 useable ports; includes integrated security housing)
GSM3112-POE	12-port managed switch with 12 10/100/1000Base-TX (8 PoE) ports plus 2 ports for 100Base-FX or 1000BaseSX/LX SFP fiber modules (12 useable ports)
GSM3112-POE-SH	12-port managed switch with 12 10/100/1000Base-TX (8 PoE) ports plus 2 ports for 100Base-FX or 1000BaseSX/LX SFP fiber modules (12 useable ports; includes integrated security housing)

### SFP Fiber Modules

SFP-100FX-LC	1 port 100Base-FX MM fiber module with LC connector
SFP-100FX-LC-SM10	1 port 100Base-FX SM (10km) fiber module with LC connector
SFP-100FX-LC-SM40	1 port 100Base-FX SM (30km) fiber module with LC connector
SFP-1000SX-LC	1 port 1000Base-SX MM fiber module with LC connector
SFP-1000LX-LC10	1 port 1000Base-LX SM (10km) fiber module with LC connector
SFP-1000LX-LC30	1 port 1000Base-LX SM (30km) fiber module with LC connector

### SPECIFICATIONS

#### OPERATIONAL CHARACTERISTICS:

- MAC Address Table
  - ▶ 8K
- Switching Capacity and Forwarding Rate
  - ▶ 17.86Mpps (64-byte packets)
  - ▶ 24Gbps switching capacity
  - ▶ Frame size supported up to 9Kb

#### POWER SAVINGS FEATURES

- ▶ Energy detect
- ▶ Cable length detection

#### MANAGEMENT FUNCTIONS:

- ▶ Web-based and console
- ▶ Remote management SNMP
- ▶ Link layer discovery protocol (LLDP) support
- ▶ Port setting for duplex and speed
- ▶ Port trunking (up to 4 groups; up to 8 ports per group)
- ▶ VLANs
  - ▶ Port based
  - ▶ Tag based
  - ▶ MAC based
  - ▶ Management VLAN
  - ▶ Private VLAN Edge (PVE)
- ▶ Port mirroring
- ▶ DHCP Option 82
- ▶ SNMP v1, v2c and v3
- ▶ IGMP v1, v2 and v3 snooping
- ▶ IGMP querier
- ▶ IGMP proxy
- ▶ MLD v1 and v2 snooping
- ▶ SSH v1 and v2
- ▶ SSL
- ▶ 802.1x RADIUS authentication
- ▶ Port security
- ▶ IP source guard
- ▶ RADIUS / TACACS authentication
- ▶ Storm control ACLs
- ▶ QoS supports 8 hardware queues
- ▶ Supports strict priority and weighted round-robin (WRR); queue assignment based on DSCP and class of service
- ▶ IPv4

- ▶ IPv6 (Web/SSL, Telnet/SSH, ping, SNMP, RADIUS, Syslog, DNS Client and protocol based VLANs)
- ▶ Rate Limiting (ingress/egress)
- ▶ Dual image supported
- ▶ GARP/GVRP
- ▶ RMON
- ▶ Firmware upgrade
- ▶ s-Flow (RFC 3176)
- ▶ UpnP
- ▶ CIDR

#### NETWORK STANDARDS:

- ▶ IEEE 802.1d/w
- ▶ IEEE 802.1p
- ▶ IEEE 802.1q
- ▶ IEEE 802.1s
- ▶ IEEE 802.1x
- ▶ IEEE 802.3
- ▶ IEEE 802.3ad
- ▶ IEEE 802.3az
- ▶ IEEE 802.3ab
- ▶ IEEE 802.3at (GSM3112-POE)
- ▶ IEEE 802.3u
- ▶ IEEE 802.3x
- ▶ IEEE 802.3z

#### GSM3112-POE FUNCTIONS:

- ▶ PoE-PSE activity LED indicator
- ▶ Auto detect powered devices and consumption levels
- ▶ Supports per port power consumption monitoring and per port priority setting
- ▶ Supports per port PoE state and power priority setting

#### EMI/SAFETY COMPLIANCE:

FCC Part 15 (CFR47) Class A & CE Mark Approval UL60950 CSA 22.2

#### NETWORK CABLE CONNECTORS:

- RJ45 shielded female ports
  - ▶ 10/100Mbps: CAT5 UTP or better
  - ▶ Multimode or singlemode with LC connectors

#### POWER SUPPLY:

- Internal power supply
- Input Voltage
  - ▶ 100 to 240 VAC, 50 to 60Hz

#### Power Consumption

- ▶ GSM3112: Full load max pwr 7.74 watts
- ▶ GSM3112-POE: Full load max pwr 127.66 watts

#### OPERATING ENVIRONMENT:

Cooling Method: Convection

#### Ambient Temperature:

- ▶ 32° to 104°F (0° to 40°C)

#### Storage Temperature

- ▶ -4° to 158°F (-20° to 70°C)

#### Ambient Humidity:

- ▶ 10% to 90% (non-condensing)

#### MECHANICAL:

- Enclosure:
  - ▶ Mounting kit available

#### PHYSICAL CHARACTERISTICS:

##### Dimensions - GSM3112

- ▶ 11 x 6.5 x 1.73 in
- ▶ 280 x 166 x 44mm

##### Dimensions-GSM3112-SH

- ▶ 13.12 x 12.27 x 2.195 in
- ▶ 333 x 312 x 55.8mm

##### Dimensions - GSM3112-POE

- ▶ 11 x 8 x 1.73 in
- ▶ 280 x 210 x 44mm

##### Dimensions-GSM3112-POE-SH

- ▶ 13.12 x 14 x 2.195 in
- ▶ 333 x 356 x 55.8 mm

##### Weight-GSM3112 Models:

- ▶ 3lbs (1.37kg)

##### Weight-GSM3112-SH Models:

- ▶ 6lbs (2.77kg)

#### WARRANTY:

Limited Lifetime