

ProSwitch® GSM Managed Gigabit Switches

Models: **GSM2108**
GSM2116-4SFP
GSM2124-4SFP
GSM2148-4SFP

Key Highlights

- ▶ 8, 16, 24 and 48-port managed switches with 10/100/1000Base-TX ports
- ▶ 16, 24 and 48 port models available with four GBIC slots for 1000Base-SX and LX fiber
- ▶ Use GBIC slots for fiber connectivity from either the core to the edge or from switch to switch
- ▶ Management functions include:
 - Access via web, Telnet or CLI
 - GVRP/GARP
 - IGMP snooping
 - STP/RSTP
 - LACP
 - SNMP
 - Enterprise MIB
 - RMON
 - 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



**GSM2124 switch with 24
10/100/1000Base-TX ports**

Waters Network Systems' GSM Series of Gigabit switches deliver reliable intelligent 10/100/1000Base-TX connectivity services from the core to the edge. The GSM series provides the application intelligence, manageability and performance to support IP data, voice and video deployment for today's most demanding LAN applications.

Models are available in 8, 16, 24 and 48 port configurations. GBIC slots are provided for fiber connectivity.

Features and Benefits

- **802.3x Flow Control.** All models are compliant for full duplex and back pressure flow control for half duplex.
- **MDI/MDI-X function.** All models provide auto-cross negotiation, so no cross over cables are required.
- **Dual media for flexible fiber connectivity.** Optional modules are available for short, medium or long haul fiber GIG connectivity on all models. 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 switch supports 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.
- **Port mirroring helps monitor network.** Port mirroring copies traffic from a specific port to a target port. All models use this function to help track network errors or abnormal packet transmission without interrupting the flow of data.
- **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 switch supports advanced VLAN techniques such as 802.1Q.
- **802.1x Access control for improved network security.** The GSM models' 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.



GSM FixPort Ethernet Switches

ORDERING INFORMATION

Model	Description
10/100/1000Mbps Managed Ethernet Switch	
GSM2108	8 port managed switch with 8 10/100/1000Base-TX RJ45 ports plus 2 slots for 1000Base-SX or LX fiber
GSM2116-4SFP	16 port managed switch with 16 10/100/1000Base-TX RJ45 ports plus 4 slots for 1000Base-SX or LX fiber
GSM2124-4SFP	24 port managed switch with 24 10/100/1000Base-TX RJ45 ports plus 4 slots for 1000Base-SX or LX fiber
GSM-2148-4SFP	48 port managed switch with 48 10/100/1000Base-TX RJ45 ports plus 4 slots for 1000Base-SX or LX fiber
SFP Fiber Modules for GSM Models	
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

- ▶ GSM2108: 144KB
- ▶ GSM2116: 816KB
- ▶ GSM2124: 1,392KB
- ▶ GSM2108: 1.5KB

Performance

- ▶ Non-blocking wire speed
- ▶ Auto negotiation
- ▶ Auto-MDIX
- ▶ Back pressure flow control for half duplex
- ▶ Flow control for full duplex

MANAGEMENT FUNCTIONS:

- ▶ Web-based, SNMP (v1, v2c), CLI, or Telnet
- ▶ Port setting for duplex and speed
- ▶ Port trunking
- ▶ 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
- ▶ RMON

NETWORK STANDARDS:

- ▶ IEEE 802.3
- ▶ IEEE 802.3u
- ▶ IEEE 802.3ab
- ▶ IEEE 802.3z

- ▶ IEEE 802.3x
- ▶ IEEE 802.1q
- ▶ IEEE 802.1p
- ▶ IEEE 802.1d/w
- ▶ IEEE 802.1x
- ▶ IEEE 802.3ad
- ▶ IEEE 802.1q
- ▶ IEEE 802.1p

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:

Internal power supply

- Input Voltage
- ▶ 100 to 240 VAC, 50 to 60Hz
- Power Consumption
- ▶ Models 2108: 13 watts maximum
 - ▶ Models 2116/24: 40 watts maximum
 - ▶ Models 2148-: 80 watts maximum

OPERATING ENVIRONMENT:

- Ambient Temperature:
- ▶ All Models: 32° to 104°F (0° to 40°C)

Ambient Humidity

- ▶ 5% to 90% (non-condensing)

MECHANICAL:

Enclosure:

- ▶ Rack mountable
- ▶ Cooling Method: Fan cooled

PHYSICAL CHARACTERISTICS

Dimensions (2108):

- ▶ 5.2 x 8.54 x 1.73 in
- ▶ 132 x 217 x 44 mm

Dimensions (2116/24):

- ▶ 8.23 x 17.40 x 1.73 in
- ▶ 209 x 442 x 44mm

Dimensions (2148):

- ▶ 9.76 x 17.40 x 1.73 in
- ▶ 248 x 442 x 44mm

Weight (2108):

- ▶ 2.43 lbs (1.1kg)

Weight (2116):

- ▶ 6.2lbs (2.82kg)

Weight (2124):

- ▶ 6.4lbs (2.9kg)

Weight (2148):

- ▶ 7.5lbs (3.4kg)

WARRANTY:

Limited Lifetime Made in USA