



ProSwitch® GSM Managed Modular Gigabit Switch

Model: GSM2924

Key Highlights

- ▶ 24-port switch with 8 10/100/1000Base-TX ports plus 24 mini GBIC slots for 1000Base-SX and LX fiber (24 usable ports)
- ▶ Combine copper and fiber Gigabit ports in the same switch
- ▶ Add fiber SFPs as you need them
- ▶ Broadcast storm control
- ▶ Virtual stacking management
- ▶ Power savings features
- ▶ Management functions include:
 - Access via web and CLI
 - SNMP
 - RMON
 - LLDP
 - DHCP Option 82
 - IGMP v3
 - 802.1x network security
 - QoS
 - VLANs
 - Multicast VLAN for IPTV
 - IP MAC port binding
 - GVRP
 - Port mirroring
 - Port trunking
 - MAC address
 - Spanning Tree
 - TFTP firmware upgrade
- ▶ Rack mountable
- ▶ Backed by Waters' limited lifetime warranty

WATERS NETWORK SYSTEMS
www.watersnet.com

Corporate Headquarters
7401 Metro Blvd., Suite 560
Edina, MN 55439
Toll Free: 800.862.3894
Phone: 952.831.5604
Fax: 952.831.5605

Manufacturing
945 37th Avenue, NW,
Rochester, MN 55901
Toll Free: 800.328.2275
Phone: 507.285.1951
Fax: 507.285.1952

GSM2924 Ethernet Switch 10/100/1000Mbps Switch



**GSM2924 switch with 8
10/100/1000Base-TX ports and 24
1000Base-SX/LX slots**

Waters Network Systems' GSM2924 provide up to 24 ports of 1000Mbps for your wiring closet requirements. The GSM2924 has 8 fixed ports of 10/100/1000Base-TX along with 24 mini GBIC slots for 1000Base-SX or LX SFP fiber. Extend your network using singlemode up to 30km.

Features and Benefits

- **Dual media for flexible fiber connectivity.** Eight 10/100/1000Base-TX ports are standard in the GSM2924. The GSM2924 can accommodate up to 24 additional 1000Base-SX or LX Gigabit fiber modules in either short, medium or long haul fiber. The GSM2924 provides maximum LAN flexibility by allowing you to customize the switch to meet your exact connectivity requirements.
- **QoS supports layer 4 classification.** In addition to 802.1p Priority Queue support, the GSM2924 also 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.
- **Power savings features.** The GSM2924 delivers green power technology by using two advanced energy saving design functions, automatic power savings (APS) and power reach function (PRF). Energy savings of up to 80 percent can be achieved with the APS and PRF power savings performance features.
 1. APS mode detects and monitors Ethernet port status to reduce power consumption for unused or idle ports.
 2. PRF is an intelligent algorithm that actively determines and adjusts the appropriate power level required based on cable length.
- **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. Q-in-Q, the use of double VLAN tags, is an efficient method for enabling subscriber aggregation.
- **MAC-based 802.3ad LACP with automatic link fail-over.** Dynamic fail-over will not allow packets to be assigned to trunk member ports that have failed. If one of the ports fails, traffic will automatically be distributed to the remaining active ports.
- **802.1x Access control for improved network security.** The GSM2924 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.
- **Rapid and Multiple 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. MSTP allows frames assigned to different VLANs to follow separate paths, each based on an independent Multiple Spanning Tree Instance.



GSM2924 FlexPort Ethernet Switch

ORDERING INFORMATION

Model	Description
10/100/1000Mbps Managed Ethernet Switch	
GSM2924	Managed modular 24 port switch chassis with 8 10/100/1000Base-TX RJ45 ports plus 24 slots for 1000Base-SX or LX SFP fiber modules. (24 usable ports)
SFP Fiber Modules for GSM-2924	
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

- ▶ 8K

Switching Mode

- ▶ Store-and-forward

Memory Buffer Size

- ▶ Jumbo frame support up to 9K
- ▶ 48Gbps switch capacity

Performance

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

POWER SAVINGS FEATURES

- ▶ Automatic Power Savings
- ▶ Power Reach Function

MANAGEMENT FUNCTIONS:

- ▶ Web-based, Console and SNMP
- ▶ Link Layer Discovery Protocol (LLDP) support
- ▶ Port setting for duplex and speed
- ▶ Port trunking (up to 12 groups)
- ▶ Port based and tagged VLANs
- ▶ Multicast VLAN management
- ▶ Port mirroring
- ▶ DHCP
- ▶ SNMP v1, v2c
- ▶ IGMP v3 snooping
- ▶ IGMP proxy
- ▶ IP MAC port binding
- ▶ 802.1x access control
- ▶ GVRP/GARP
- ▶ Broadcast/multicast storm suppression
- ▶ Q-in-Q Subscriber Aggregation
- ▶ Bandwidth control
- ▶ QoS
- ▶ LACP
- ▶ STP/RSTP/MSTP
- ▶ ACL
- ▶ SSL/SSH management

- ▶ Virtual stacking management
- ▶ Enterprise MIB
- ▶ RFC1213MIB (MIB-II)
- ▶ RFC1757 RMON MIB
- ▶ RFC1493 Bridge MIB
- ▶ RFC1643 Ethernet 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 802.1s
- ▶ IEEE 802.3ad

EMI/SAFETY COMPLIANCE:

FCC Part 15 Class A & CE Mark Approval
ROHS Compliant
EN55022
EN61000-3
IEC61000-4

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
- ▶ 40 watts maximum

OPERATING ENVIRONMENT:

Ambient Temperature:

- ▶ 32° to 104°F (0° to 40°C)

Ambient Humidity:

- ▶ 5% to 90% (non-condensing)

MECHANICAL:

Enclosure:

- ▶ Rack mount
- ▶ Cooling Method: Fan cooled

PHYSICAL CHARACTERISTICS:

Dimensions

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

Weight:

- ▶ 6.4lbs (2.9kg)

WARRANTY:

Limited Lifetime