OfficeCon Switch
GSW-0890

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Layer 2 SNMP Switch

The latest Layer 2 Managed Switch from LevelOne is a perfect solution for young and dynamic Offices with small network user groups. The GSW-0890 provides Gigabit and Fiber Optic connection possibilities that enable a high-speed networking environment with long range connectivity to remote located networks.

It supports SNMP, Web UI and CLI management interfaces and is equipped with 8 Gigabit TP ports of which 2 are dual media ports that can accommodate optional 10/100/1000Base-T or SFP modules. The GSW-0890 further implements QoS (Quality of Service), Mac Filtering Policy, Port Mirror, VLAN and full Layer 2 protocol.

GSW-0890

Dual Media Port Support
The GSW-0890 provides shared dual media port support on ports 7 and 8 for more flexible fiber connectivity. SFP transceiver modules can be connected to provide short, medium and long distance fiber backbone capability.

QoS with Layer 4 Classification Support
The switch provides support for Layer 2 802.11p Priority Queue control as well as programmable higher layer classification and prioritization to enable enhanced Quality of Service (QoS) support for real time applications based on information taken from Layer 2 to 4, such as VoIP and Real-time video streaming applications.

Network Management Features for Comprehensive Network Control
The GSW-0890 8-port Layer 2 switch incorporates Port Mirroring, Q-in-Q VLAN, Access Control and Port Trunking among its network management features.

Port mirroring copies traffic from a specific port to a target port. This mechanism helps track network errors or abnormal packet transmission without interrupting the flow of data.

The VLAN feature in the switch offers the benefits of both security and performance. VLAN is applied 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.

802.1x features enable user authentication for each network access attempt. Port security features allow you to limit the number of MAC addresses per port in order to control the number of stations for each port. Static MAC addresses can be defined for each port to ensure only registered machines are allowed to access. By enabling both of these features, you can establish an access mechanism based on user and machine identities, as well as control the number of access stations.

The GSW-0890 is also 802.3ad Port Trunk compliant. The Gigabit ports can be combined together to create a multi-link load-sharing trunk. Up to 4 Gigabit ports can be set up per trunk for bandwidth up to 8Gbps, all traffic is aggregated based on MAC addresses, thus balancing the traffic load. The switch supports up to 4 trunking groups. Port trunks are useful for switch-to-switch cascading, providing very high full-duplex speeds

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802.1D & 802.1w Rapid Spanning Tree Compatible
For mission critical environments with multiple switches supporting STP, you can configure the switches with a redundant backup bridge path, so transmission and reception of packets can be guaranteed in the event of any switch failure on the network.

Broadcast/Multicast Storm Control
To limit too many broadcast/Multicast flooding in the network, broadcast/multicast storm control is used to restrict excess traffic. Threshold values are available to control the rate limit for each port. Packets are discarded if the count exceeds the configured upper threshold.

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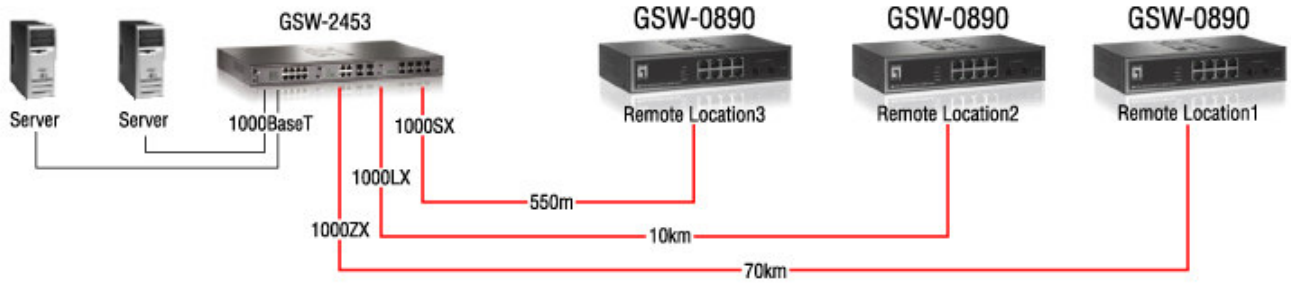
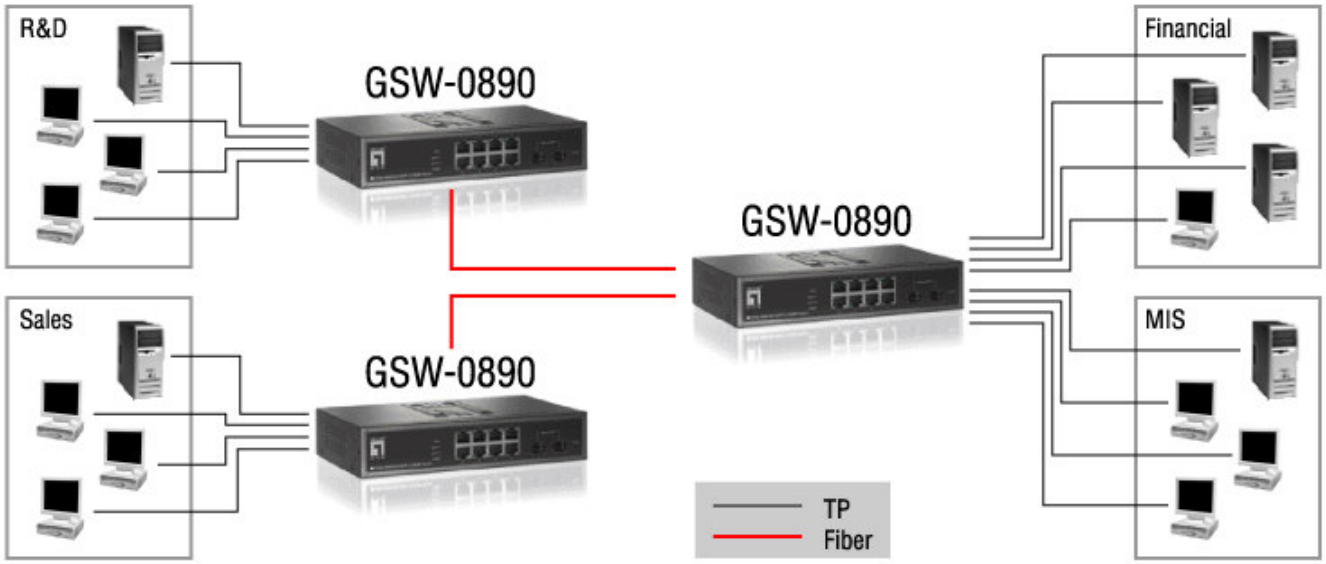
Key Features

- Complies with IEEE802.3, IEEE802.3u, IEEE802.3ab and IEEE802.3z standard
- High Performance Architecture and Advanced Network Features
- SFP Port Provides Flexible Fiber Connection
- Supports port-based, 802.1q tag-based, and private VLAN
- Supports Q-in-Q VLAN for performance & security to expand the VLAN space
- Supports Mac-based 802.3ad LACP with automatic link fail-over
- Supports 802.1x Access Control to improve your network security
- IEEE802.1d and 802.1w Rapid Spanning Tree can create a redundant backup bridge path for mission critical environments
- Supports telnet, CLI and Web-based management

Product Diagram





Office Network Connection

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Technical Specification

Standard Compliance
IEEE802.3x flow control capability
IEEE802.1q VLAN
IEEE802.1p QoS

Performance
Switching Capability
8 Gigabit Ethernet ports with non-blocking wire speed performance
8K MAC addresses
144KB on-chip frame buffer
Supports Jumbo frame up to 9K
Broadcast/Multicast Storm Suppression
Port Mirroring

VLAN
Port-base VLAN
IEEE802.1q tag-base VLAN with up to 256 active VLANs
Efficient Q-in-Q Subscriber Aggregation

VSM (Virtual Stacking Management)
Up to 16 Switches manageable via single IP address
Virtual stacking with no additional stacking hardware required
Distributed stacking with no physical central wiring closet needed

QoS
Supports Layer 4 TCP/UDP port and ToS classification
Supports 802.1p QoS with two level priority queue
Supports priority in a Q-in-Q tag

Bandwidth Control
Supports bandwidth rating per port ingress and egress rate limit with 1000Mbps with 1Mbps increments

Technical Specifications
LED Indication
System LED, Port activity LED and Gigabit SFP Module LED

Network Interface
10/100/1000Mbps TP Jack for RJ-45 type Cat.5 cabling
1000Mbps SFP Fiber Module for fiber optic cabling

Cabling and Length
1000Base-SX SC M-M
Up to 220/275/500/550m depending on Multi-Mode Fiber type

1000Base-LX SC S-M
Single-Mode fiber cable up to 10/30/50 km

Protocol
LACP
Port trunking with 4 trunking groups
Up to 8 ports for each group

GVRP/GARP
802.1q with GVRP/GARP

Multicasting
Supports IGMP snooping including active and passive modes

STP/RSTP
802.1d/1w/1s STP

Network Security
802.1x access control
Management Access Policy Control (ACL)

SNMP v.1, v.2 Network Management
RFC 1213 MIB (MIB-II)
- Interface MIB
- Address Translation MIB
- IP MIB
- ICMP MIB
- TCP MIB
- UDP MIB
- SNMP MIB

RFC 1757 RMON MIB
- Statistics Group 1
- History Group 2
- Alarm Group 3
- Event Group 9

RFC 1493 Bridge MIB
RFC 1643 Ethernet MIB
Enterprise MIB

Hardware Specifications
Voltage:
100-240V AC

Frequency:
50-60 Hz

Power Consumption:
20W

Working Temperature:
0 – 40 °C

Dimensions:
44mm (h) x 217mm (w) x 132,7mm (d)

Humidity:
5% to 90%

Safety:
Complies with FCC Part 15 Class A & CE

Ordering Information

GSW-0890: 8-Port 10/100/1000Mbps w/ 2-Port SFP L2 SNMP

Optional
GVT-0300: 1000Base-SX SFP mini-GBIC Transceiver, Multi-Mode 550m
GVT-0301: 1000Base-LX SFP mini-GBIC Transceiver, Single-Mode 10km
GVT-0302: 1000Base-ZX SFP mini-GBIC Transceiver, Single-Mode 70km

For more information, please contact your LevelOne representative, or visit our website
All technical specifications are subject to change without notice.

www.level1.com