



# GSW-3216M1

## 16x GbE, RJ45 + 2x GbE, SFP L2+ Managed Switch

GSW-3216M1 is a cost-effect, high performance, managed L2 Ethernet with 16x 10/100/1000Base-T ports and 2x Gigabit Ethernet 1000Base-X ports. This switch supports remote management by SNMP, HTTP and Telnet interfaces along with local management by console interface. GSW-3216M1 supports many L2 switch management functions, including 802.1Q VLAN, 802.1x Port Security, Rate Control, Port Configuration, Port Mirroring, Port Statistics, QoS functions, Spanning tree and more.

### Feature

- 16x RJ45 ports, with 10/100/1000Mbps, Full/Half duplex auto-negotiation and Auto-MDIX functions
- 2x Dual Speed SFP sockets, port 17 and port 18
- CISCO-like command line interface, IPv6 management
- 8 priority queues are supported on each port for QoS application
- Port-based VLAN, 802.1Q VLAN, Voice VLAN and Q-in-Q (double tagging) function
- Protected Port and Loop Detection function
- IEEE 802.1x security function, and VLAN assignment, Guest VLAN functions
- Static Mac address access limit and Dynamic Mac address number on port
- IEEE802.1d & 802.1w & 802.1s (spanning tree)
- IP Multicast with IGMP snooping / query / fast leave / filtering / group limited /MVR
- DHCP Client / DHCP Option 82 Relay / DHCP Snooping function
- ACL function for L2 ~ L4 packet control, Ingress/Egress rate control on port
- Broadcast/Multicast/Unicast storm control
- ARP inspection / IP source guard, RMON 1,2,3,9
- SFP Transceiver DDMI function / Dual Speed SFP Ports (100/1000Mbps)
- Remote port configuration setting and statistics monitoring
- Text based CLI onfiguration download and upload
- IEEE 802.3az power management / FANless / Green Ethernet

### Specifications

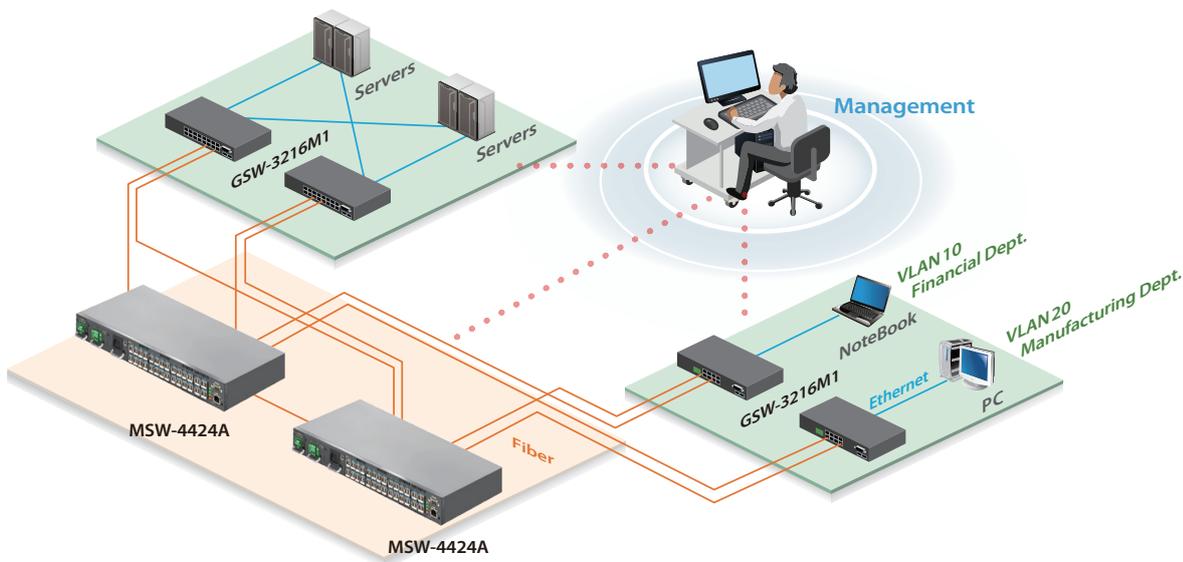
| System                |  |
|-----------------------|--|
| 10/100/1000 Base-T    | 16   |
| 100/1G SFP Slot       | 2  |
| Packet buffer         | 512KB  |
| MAC Table size        | 8K   |
| Max Packet size       | 9600 Bytes   |
| Switching capability  | 14880pps at 10Mbps<br>148800pps at 100Mbps<br>1488000pps at 1Gbps  |
| Switch capacity       | 36Gbps   |
| Forwarding Rate       | 26.7Mpps   |
| FAN Design            | FAN less   |
| Console port          | D-Sub 9  |
| 19" Rack-Mount        | Yes, with kits (optional)  |
| SFP DDMI              | Yes  |
| Dimensions            | 117 x 250 x 37 mm(D x W x H)   |
| Operating Temperature | 0 ~ 50°C   |
| Storage Temperature   | -25 ~ 70°C   |
| Humidity              | 10% ~ 90% (non-condensing)   |
| LED Display           | Per Port : Link/Act (Green: Gigabit, Yellow:10/100M)<br>Per Device : Power and System                          |
| Power Consumption     | 14 Watt Max.   |
| Power Input           | AC Power input (100V~240V)   |
| LED                   |  |
| Power                 | Lights(Green) System is receiving power  |
| System                | Lights(Green) System is ready  |
| Link / Act            | Lights Link is ready<br>1000Mbps : Green<br>10/100Mbps : Amber<br>Flashing Data packets being received or sent |

| Software          |   |
|-------------------|---|
| Port Control      | Port speed, duplex mode, and flow control<br>Port frame size (jumbo frames), Maximum ingress frame size (9600 bytes)<br>Port state (administrative status)<br>Port status (link monitoring)<br>Port statistics (MIB counters)<br>Port VeriPHY (cable diagnostics), Power Control  |
| L2 Switching      | Auto MAC address learning/aging and MAC addresses (static)<br>IEEE 802.1Q static VLAN(Max. 4K VLAN groups), Voice VLAN, Port isolation, Port Based VLAN,<br>IEEE 802.1ad Provider Bridge<br>IEEE 802.1D STP/802.1w RSTP/802.1s MSTP<br>IEEE 802.3ad Link Aggregation, static and LACP<br>BPDU guard and restricted role, BPDU transparency<br>DHCP client, DHCP snooping, DHCP option 82 relay<br>ARP inspection, Port mirroring, IP MAC binding        |
| Layer 2 Multicast | IGMP v2, v3 snooping, (1024 groups)<br>IGMP throttling, filtering, and leave proxy<br>MVR   |
| QoS               | 8 Priority Queues per Port<br>Port Based priority, Scheduler priority, QoS Control List<br>Storm control for UC, MC, and BC<br>Policing and shaping per port and per queue<br>Ingress Policing :<br>(100-1000000 when the "Unit" is "kbps" or "fps" and 1-3300 when the "Unit" is "Mbps" or "kfps")<br>Egress Shaping :<br>(100-1000000 when the "Unit" is "kbps", and 1-3300 when the "Unit" is "Mbps")<br>DiffServ (RF 2474) remarking, Tag remarking |

|                        |   |
|------------------------|---|
| <b>Security</b>        | Port-based 802.1X, Single 802.1X, Multiple 802.1X<br>MAC-based authentication, VLAN assignment, QoS assignment,<br>Guest VLAN, RADIUS accounting, MAC address limit<br>TACACS+, Web and CLI authentication and authorization<br>Authorization (3 levels)<br>ACLs for filtering(256 entries), policing, and port copy<br>IP source guard |
| <b>Synchronization</b> | NTPv4 Client  |
| <b>Power Saving</b>    | ActiPHY, PerfectReach,<br>Ethernet Energy Efficient power management(EEE)   |
| <b>SFP DDMI</b>        | Yes   |

|                   |  |
|-------------------|--|
| <b>Management</b> | HTTP server, CLI console port, Telnet,<br>Management access filtering, SSHv2 and HTTPS<br>IPv6 Management, System Syslog<br>Software download through Web,<br>SNMPv1/v2c/v3 Agent<br>RMON Group 1, 2, 3, and 9<br>IEEE 802.1AB-2005 Link Layer Discovery, LLDP<br>Text Configuration download or upload, sFlow,<br>Daylight Saving |
|-------------------|--|

## Application



## Ordering Information

| Model Name      | Description  |
|-----------------|--|
| GSW-3216M1-AC   | 16x 10/100/1000Base-T + 2x GbE(SFP) L2 Switch with AC power supply     |
| GSW-3216M1-DC48 | 16x 10/100/1000Base-T + 2x GbE(SFP) L2 Switch with DC 48V power supply |

Power Type  
**GSW – 3216M1** –      
 Example: GSW – 3216M1 – DC48