

# GM6048S

## Layer 3 Stackable Gigabit Ethernet Switch

48 ports stackable 10/100/1000BASE-T L3 switch with 4 SFP bays (unpopulated)



### Overview

GM6048S is a managed switch that offers 48 10/100/1000BASE-T Gigabit Ethernet ports, 4 SFP ports .

Delivering significant rack density, the GM6048S gives users the flexibility to maximize server and workstation connectivity in a 1U form factor.

GM6048S supports advanced Layer 3 routing and multicast protocols to help reduce congestion and manage traffic in the network.

Moreover, GM6048S provides frequently used LAN multicast, routing and redundancy protocols such as RIPv1/v2, OSPFv2, VRRP, IGMP, DVMRP and PIM.

### Highlights

- High Gigabit port Density
- High Performance Stacking
- Advanced Layer 3 Capabilities
- Advanced QoS
- Advanced Security

### Technical Specifications

#### Physical Interfaces

- 48 10/100/1000BASE-T auto-sensing Gigabit Ethernet switching ports
- 4 SFP combo ports for fiber media support
- Stacking module
- Auto-negotiation for speed, duplex mode and flow control
- Auto MDI/MDIX
- Port mirroring

#### Performances

- Switch Fabric Capacity 136 Gb/s
- Forwarding Rate 95 Mpps
- Up to 16,000 MAC Addresses
- 256MB of CPU SDRAM
- 64MB of Flash Memory

#### Availability

- Spanning Tree (IEEE 802.1D) and Rapid Spanning Tree (IEEE 802.1w)
- Multiple spanning trees (IEEE 802.1s)

- Supports Virtual Redundant Routing Protocol (VRRP)
- External redundant power support (sold separately)

### Layer 3 Routing Protocols

- Static routes
- Routing Information Protocol (RIP) v1/v2
- Open Shortest Path First (OSPFv2)
- Classless Inter-Domain Routing (CIDR)
- Virtual Redundant Routing Protocol (VRRP)
- GARP support
- Internet Group Management Protocol (IGMP) v2
- Distance-Vector Multicast Routing Protocol (DVMRP)
- DHCP server and relay

### Layer 3 Routing Performance

- Up to 128 RIP Routing Interfaces
- Up to 256 DVMRPRouting interfaces
- Up to 100 DVMRP multicast routes
- Up to 40 OSPF Routing Interfaces; up to 5 OSPF Areas; up to 8 Routing Interfaces per OSPF Area; Up to 512LSA per Area; Up to 50 neighbors per area. Up to 16 PIM-DM interfaces, Up to 3 neighbors per interfaces

### VLAN

- VLAN support for tagging and port-based as per IEEE 802.1Q
- Up to 256 VLANs supported
- GVRP support

### Quality of Service

- Layer 2 CoS (IEEE 802.1p)
- Layer 2 CoS Replacement
- ACL based on layers (L2, L3, L4)
- up to 128 ACL per port s can be used for QoS flow identification
- 8 Priority Queues per Port
- Weighted-Round-Robin (WRR) and Strict Queue Scheduling
- Port-based QoS Services Mode

### Layer 2 Multicast

- Static IP Multicast
- Dynamic Multicast Support – 256 Multicast groups supported in IGMP Snooping
- IGMP snooping for IP multicast support
- IGMP Querier
- Protocol Independent Multicast (PIM-DM, PIM-SM)

#### DISCLAIMER:

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## Managed switch

# GM6048S

- SSLv3 and SSHv2 encryption for switch management traffic

### Security

- Up to 128 Access Control Lists (ACLs) per port supported
- IEEE 802.1x based authentication
- Switch access password protection
- User-definable settings for enabling or disabling Web, SSH, Telnet, SSL management access
- RADIUS remote authentication for switch management access

### Other Switching Features

- Link Aggregation with support for up to 4 aggregated links per switch and up to 8 member ports per aggregated link; LACP support (IEEE 802.3ad)

### Management

- Web-based management interface
- Industry-standard CLI accessible via Telnet or Local Serial Port
- SNMPv1, SNMP v2c supported
- RMON groups 1,2,3,9 – RFC 1757 supported(history, statistics, alarms and events)
- TFTP transfers of firmware and configuration files
- Dual Firmware images on-board
- Statistics for error monitoring and performance optimization including port summary tables
- BootP/DHCP IP address management supported
- Syslog remote logging capabilities
- Serial Port: RJ45

### Chassis

- 440 x 387 x 43.2 mm (W x D x H)
- 1U, rack-mounting kit included
- Approximate weight : 6,2 Kg

### Hardware

- 256MB of CPU SDRAM
- 64MB of Flash Memory

### mib Support

- RFC 1213 MIB II
- RFC 1286 Bridge MIB
- RFC 1442 SMIV2 (SNMPv2 MIB)
- RFC 1493 Definitions of Managed Objects for Bridges
- RFC 1757 Remote Network Monitoring (RMON) MIB
- RFC 1907 SNMP v2 MIB
- RFC 2011 Internet Protocol (IP) MIB using SMIV2
- RFC 2012 Transmission Control Protocol (TCP) MIB using SMIV2
- RFC 2013 User Datagram Protocol (UDP) MIB using SMIV2
- RFC 2233 Interfaces Group using SMIV2
- RFC 2618 RADIUS MIB
- RFC 2665 Ethernet-like Interface Types MIB
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### Standards Supported

- IEEE 802.1D
- IEEE 802.1Q
- IEEE 802.1p
- IEEE 802.1w

- IEEE 802.1x
- IEEE 802.3
- IEEE 802.3u
- IEEE 802.3x
- IEEE 802.3z
- IEEE 802.3ad
- IEEE 802.3ae

### Stacking

- Up to 8 units
- Single chip appearance
- Single IP management
- Backup master
- Full duplex link with 12Gbps performance
- Trunking across stack
- Port mirroring across stack
- VLAN across stack
- STACK bandwidth: 12Gbps
- STACK technology: HiGig

### Environmental Specifications

Operating Temperature: 0° C to 45° C  
Storage Temperature: -20° C to 70° C  
Operating Relative Humidity: 10% to 90% non-condensing  
Storage Relative Humidity: 10% to 95% non-condensing

### Power

100-240VAC, 50-60Hz

### Electromagnetic Emissions

CE mark, commercial  
FCC Part 15 Class A  
VCCI Class A  
EN 55022 (CISPR 22), Class A  
C-Tick

### Electromagnetic Immunity

EN55024

### Safety

UL 1950 (UL/cUL), EN60950 (TUV)

### Package Contents

One switch unit  
Power cord AC  
Rackmount kit  
Rubber feet for desktop installation  
RS232 management connector adapter for stright cat.5 cable  
Install guide and user guide in CD  
Warranty/Support Information card

### Related Products

XFP 10G MM 850nm LC-Receptacle (TSP-10G3A1EER)  
XFP 10G SM 1310nm LC-Receptacle (TSP-10G3B1QER)  
SFP 850nm MM Fiber (500m) (LCP-1250A4FSRA),  
SFP 1310nm SM Fiber (10Km) (LCP-1250B4QSRA),  
SFP 1310nm SM Fiber (10Km) DDM (LCP-1250B4QDR ),  
SFP 1310nm SM Fiber (40Km) DDM (LCP-1250B4MDR),  
SFP 1550nm SM Fiber (80Km) DDM (LCP-1250D4RDR),  
SFP 1550nm SM Fiber (100Km) DDM (LCP-1250D4VD)  
Stacking Cable 30 cm (p/n 3080429056)  
Stacking Cable 60 cm (p/n 3080429156)  
Stacking Cable 3 m (p/n 3080428956)

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