

GS950 Series

Gigabit WebSmart Edge Switches

The Allied Telesis GS950 Series of WebSmart network switches demonstrates the Allied Telesis commitment to environmentally-friendly processes and products, minimizing power consumption through the use of a high efficiency power supply and a low power chipset. Featuring PoE+, GS950 Series switches at the network edge are the ideal cost-effective solution for small businesses.



Ease of management and high performance

These advanced Allied Telesis WebSmart switches combine the simplicity of unmanaged switches with the performance and reliability of managed switches. This provides a cost-effective, secure and reliable solution for integrated management at the network edge. With user-friendly web-based management, the GS950 Series is ideal for integrating simple management and security into your network solution.

Power over Ethernet (PoE)

The GS950/8POE, 10PS, 16PS, 28PS, 48PS switches are available in PoE configurations. What's more, the GS950/10PS, 16PS, 28PS, 48PS switches support PoE+ (IEEE 802.3at), with the capability of delivering up to 30W per port.

PoE allows users to connect and power a device using a single Ethernet cable, thus eliminating the need for additional power outlets and simplifying installation. Furthermore, this system is unaffected by any local variance in AC power, offering a standardized power infrastructure.

Key Features

VLAN

- ▶ IEEE 802.1Q tagged
- ▶ Port-based
- ▶ Up to 256 groups

Quality of Service Classification

- ▶ IEEE 802.1p tagging
- ▶ Port-based priority
- ▶ Four priority queues per port

IP Multicast Support (IPv4)

- ▶ IGMP snooping (v1/v2)
- ▶ Static multicast group (up to 256)
- ▶ Spanning-Tree, IEEE 802.1d/w/s

IEEE 802.3ad Link Aggregation

- ▶ Manual
- ▶ LACP (not on GS950/8, 16, 24, 48)

IEEE 802.1x Port-based, MAC-based and Network Access Control

- ▶ Local authentication server (MD5 only)
- ▶ Remote authentication through RADIUS
- ▶ Dynamic VLAN assignment
- ▶ RADIUS Client

Other

- ▶ IEEE 802.3x flow control or HOL* blocking prevention (* when flow control is off)
- ▶ Port mirroring
- ▶ Destination MAC filtering
- ▶ Ingress/egress rate limiting
- ▶ Broadcast storming control
- ▶ 100 FX SFP support
- ▶ Jumbo Frames - up to 10K

Management Features

- ▶ Web-based configuration
- ▶ CLI configuration on GS950PS Series
- ▶ SNMP trap view
- ▶ LLDP
- ▶ Firmware upgrade by FTP and HTTP
- ▶ Configuration backup/restore by FTP and HTTP
- ▶ Factory reset
- ▶ Password access control and restricted
- ▶ IP access list
- ▶ SNMPv1/v2c/v3
- ▶ DHCP client
- ▶ Syslog support
- ▶ System time configuration (SNTP, manual)
- ▶ Statistics Charts in Web

MIBs

- ▶ RFC 1213 MIB-II
- ▶ RFC 1643 Ethernet MIB
- ▶ RFC 1493 Bridge MIB
- ▶ RFC 2131 DHCP client
- ▶ Private Enterprise MIB (Allied Telesis provides the spec)

RMON Groups (1, 2, 3, 9)

- ▶ Stats
- ▶ History
- ▶ Alarms
- ▶ Events

ACL

- ▶ 240 entries (shared)

Specifications

Product specifications

| PRODUCT | 10/100/1000T COPPER PORTS | 100/1000X SFP PORTS | TOTAL PORTS | POE+ ENABLED PORTS | SWITCHING FABRIC | FORWARDING RATE |
|------------|---------------------------|---------------------|-------------|--------------------|------------------|-----------------|
| GS950/8 | 6 + 2 (Combo) | 2 (Combo) | 8 | - | 16 Gbps | 11.90 Mpps |
| GS950/8POE | 6 + 2 (Combo) | 2 (Combo) | 8 | 4 ¹ | 16 Gbps | 11.90 Mpps |
| GS950/10PS | 8 + 2 (Combo) | 2 (Combo) | 10 | 8 | 20 Gbps | 14.88 Mpps |
| GS950/16 | 14 + 2 (Combo) | 2 (Combo) | 16 | - | 32 Gbps | 23.80 Mpps |
| GS950/16PS | 14 + 2 (Combo) | 2 (Combo) | 16 | 16 | 32 Gbps | 23.80 Mpps |
| GS950/24 | 20 + 4 (Combo) | 4 (Combo) | 24 | - | 48 Gbps | 35.71 Mpps |
| GS950/28PS | 24 | 4 ² | 28 | 24 | 56 Gbps | 41.66 Mpps |
| GS950/48 | 44 + 4 (Combo) | 4 (Combo) | 48 | - | 96 Gbps | 71.42 Mpps |
| GS950/48PS | 44 + 4 (Combo) | 4 (Combo) | 48 | 24 | 96 Gbps | 71.42 Mpps |

¹ Only POE (15.4W) can be supported

² Only 1000X SFP can be supported

Power characteristics 100-240V AC, 50-60Hz(GS950/8POE: 90-240V)

| PRODUCT | NO POE LOAD | | | FULL POE+ LOAD | | | POE POWER BUDGET (W) | POE SOURCING PORTS | | |
|------------|---------------------------|------------------------------|-----------------------------------|---------------------------|------------------------------|-----------------------------------|----------------------|--------------------|-------------|----------------|
| | MAX POWER CONSUMPTION (W) | MAX HEAT DISSIPATION (BTU/h) | MAX NOISE (dBA) | MAX POWER CONSUMPTION (W) | MAX HEAT DISSIPATION (BTU/h) | MAX NOISE (dBA) | | POE (7.5W) | POE (15.4W) | POE+ (30W) |
| GS950/8 | 8.7 | 29.69 | Fanless | - | - | - | - | - | - | - |
| GS950/8POE | 10 | 34.12 | Fanless | 87.5 | 298.56 | Fanless | 61.6 | 4 | 4 | - |
| GS950/10PS | 14.44 | 49.27 | Fanless | 92.7 | 316.31 | Fanless | 75 | 8 | 4 | 2 |
| GS950/16 | 12.92 | 44.08 | Fanless | - | - | - | - | - | - | - |
| GS950/16PS | 21.8 | 74.38 | 47 dB@98% >25C 38.2dB@52% <25C | 228.5 | 779.67 | 47 dB@98% >25C 38.2dB@52% <25C | 185 | 16 | 12 | 6 |
| GS950/24 | 17.35 | 59.20 | Fanless | - | - | - | - | - | - | - |
| GS950/28PS | 28.6 | 97.59 | 58.5dB >25C 55.2dB <25C | 238 | 812.09 | 58.5dB >25C 55.2dB <25C | 185 | 24 | 12 | 4 ³ |
| GS950/48 | 42.97 | 146.62 | 47dB@98% >25C 38.5dB@58% <25C | - | - | - | - | - | - | - |
| GS950/48PS | 55.6 | 189.72 | 51.6dB >25C 38.7dB <25C | 446 | 1521.82 | 51.6dB >25C 38.7dB <25C | 370 | 24 | 24 | 12 |

Note: Noise values are dependent on the ambient temperature, not POE load. Above 25C the fan runs at full speed.

³It supports between port-1 and port-4 (Only 4 ports can be used with 30W PoE power budget).

Physical specifications

| PRODUCT | HEIGHT | WIDTH | DEPTH | WEIGHT |
|------------|-------------------|-------------------|-------------------|---------------------|
| GS950/8 | 44 mm (1.73 in) | 280 mm (11.02 in) | 180 mm (7.09 in) | 1.50 Kg (3.30 lbs) |
| GS950/8POE | 43 mm (1.70 in) | 330 mm (13.00 in) | 230 mm (9.06 in) | 2.54 Kg (5.60 lbs) |
| GS950/10PS | 44 mm (1.73 in) | 330 mm (13.00 in) | 200 mm (7.90 in) | 1.90 Kg (4.20 lbs) |
| GS950/16 | 44 mm (1.73 in) | 330 mm (13.00 in) | 200 mm (7.90 in) | 2.10 Kg (4.60 lbs) |
| GS950/16PS | 44 mm (1.73 in) | 430 mm (17.00 in) | 250 mm (9.80 in) | 3.56 Kg (7.85 lbs) |
| GS950/24 | 44 mm (1.73 in) | 330 mm (13.00 in) | 200 mm (7.90 in) | 2.30 Kg (5.10 lbs) |
| GS950/28PS | 44 mm (1.73 in) | 450 mm (17.71 in) | 250 mm (9.80 in) | 3.60 Kg (7.93 lbs) |
| GS950/48 | 43.2 mm (1.70 in) | 444 mm (17.48 in) | 257 mm (10.12 in) | 4.10 Kg (9.00 lbs) |
| GS950/48PS | 44 mm (1.73 in) | 440 mm (17.32 in) | 430 mm (17.00 in) | 6.62 Kg (14.60 lbs) |

Performance

14,880pps for 10Mbps Ethernet
 148,800pps for 100Mbps Ethernet
 1,488,000pps for 1000Mbps Ethernet
 MAC addresses: 8K
 VLAN IDs available: 4K
 Max VLANs: 256
 Packet buffer: 1MB
 DRAM: 64MB
 Flash: 16MB

Interface connections

10/100/1000T: RJ-45
 SFP: 100TX, 100FX, 1000T, 1000SX or 1000LX

Technical specifications

Wall-mount or desktop
 All units come with wall /19 in rack-mount brackets

Environmental specifications

Operating temperature: 0°C to 45°C (32°F to 113°F)
 Non-operating temperature: -25°C to 70°C (-13°F to 158°F)
 Operating humidity: 5% to 90% non-condensing
 Storage humidity: 5% to 95% non-condensing
 Vibration: IEC 68-2-36
 Shock: IEC 68-2-29
 Drop: IEC 68-2-32
 Flammability: UL94V-0
 (GS950/10PS, 16PS, 28PS, 48PS only)

Environmental compliance

RoHS
 China RoHS
 WEEE
 Eu-RoHS (GS950/10PS, 16PS, 28PS, 48PS only)

Electrical/mechanical approvals

GS950/8, 8POE, 16, 24, 48
 UL 1950
 FCC/EN55022 Class A
 VCCI Class A
 C-Tick
 EN60950 (TUV)
 EN55024
 CE
 CSA / CUL

GS950/10PS, 16PS, 28PS, 48PS

UL60950-1 2nd edition (UL)
 FCC/EN55022/CISPR 22 Class A
 VCCI Class A
 C-Tick
 EN60950 (TUV)
 EN55024
 CE Mark
 CSA / CUL

Standards and compliance

| | |
|----------------|--------------------------------------|
| RFC792 | ICMP |
| RFC1213 | MIB-II |
| RFC1350 | TFTP |
| RFC1492 | TACACS |
| RFC1769 | SNTP (Simple Network Time Protocol) |
| RFC2131 | DHCP client |
| RFC2236 | IGMP |
| RFC2461 | NDP (Neighbor Discovery protocol) |
| RFC2616 | HTTP |
| RFC2866 | RADIUS |
| RFC4330 | SNTP |
| RFC5343 | SNMP |
| RFC6101 | SSL |
| IEEE 802.3 | CSMA/CD |
| IEEE 802.3i | 10T |
| IEEE 802.3u | 100TX |
| IEEE 802.3z | 1000SX/LX |
| IEEE 802.3z/ab | 1000T |
| IEEE 802.3x | Flow control |
| IEEE 802.1p | Prioritization (four queues) |
| IEEE 802.1x | Authentication |
| IEEE 802.1x | Local authentication server(MD5) |
| IEEE 802.1x | Remote authentication through RADIUS |
| IEEE 802.1x | Dynamic VLAN assignment |
| IEEE 802.1x | MAC-based authentication |
| IEEE 802.1x | RADIUS |
| IEEE 802.1d | Bridging |
| IEEE 802.3ad | Link aggregation |
| IEEE 802.3ad | Port trunking and LACP |
| IEEE 802.1Q | Tagged VLAN |
| IEEE 802.1d | Spanning-Tree |
| IEEE 802.1w | Rapid Spanning-Tree |
| IEEE 802.1s | Multiple Spanning-Tree |
| IEEE 802.3af | PoE |
| IEEE 802.3at | PoE+ |
| IEEE 802.3az | Energy Efficient Ethernet |

Ordering information

Model availability can vary between regions. Please check our website to see which models are available in your region.

AT-GS950/8-xx

8-port 10/100/1000T eco-friendly WebSmart switch with 2 SFP combo ports

AT-GS950/16-xx

16-port 10/100/1000T eco-friendly WebSmart switch with 2 SFP combo ports

AT-GS950/24-xx

24-port 10/100/1000T eco-friendly WebSmart switch with 4 SFP combo ports

AT-GS950/48-xx

48-port 10/100/1000T eco-friendly WebSmart switch with 4 SFP combo ports

AT-GS950/8POE-xx

8 port 10/100/1000T PoE fanless WebSmart switch with 2 SFP combo ports

AT-GS950/10PS-xx

10-port 10/100/1000T POE+ (8 POE+ Enabled) WebSmart switch with 2 SFP combo ports

AT-GS950/16PS-xx

16-port 10/100/1000T POE+ WebSmart switch with 2 SFP combo ports

AT-GS950/28PS-xx

24-port 10/100/1000T POE+ WebSmart switch with 4 SFP ports

AT-GS950/48PS-xx

48-port 10/100/1000T POE+ (24 POE+ Enabled) WebSmart switch with 4 SFP combo ports

Package contents

Switch unit
 Rack-mount brackets and screws
 Power cord
 Rubber feet
 User manual/install guide on CD (GS950/8POE only)

Small Form Pluggable Optics Modules

AT-SPSX

SFP, MMF, 1000Mbps, 220/500 m, 850 nm, LC

AT-SPLX10

SFP, SMF, 1000Mbps, 10 km, 1310 nm, LC

AT-SPFX/2⁴

SFP, MMF, 100Mbps, 2 km, 1310 nm, LC

AT-SPFX/15⁴

SFP, SMF, 100Mbps, 15 km, 1310 nm, LC

AT-SPBD10-13

SFP, SMF, 1000Mbps, 10 km, 1310/1490 nm, LC-BiDi

AT-SPBD10-14

SFP, SMF, 1000Mbps, 10 km, 1490/1310 nm, LC-BiDi

⁴Not supported on GS950/28PS

Where xx = 10 for US power cord
 20 for no power cord
 30 for UK power cord
 40 for Australian power cord
 50 for European power cord