

# GS950 V2 Series

## Gigabit WebSmart Edge Switches



### Overview

The Allied Telesis GS950 V2 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. With both PoE+ and non-PoE modes, GS950 V2 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 V2 Series is ideal for integrating simple management and security into your network solution.

### Power over Ethernet (PoE)

The GS950/10PS V2, 18PS V2, 28PS V2 and 52PS V2 switches are available in 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

#### 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

- SSH
- Telnet
- Web-based configuration
- CLI configuration<sup>1</sup>
- 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

- Support (number of entries 188)

<sup>1</sup> CLI can only be used for upgrading firmware, downloading configuration, and showing command

# SPECIFICATIONS

## Product Specifications

|                      | 10/100/1000T Copper Ports | 100/1000X SFP Ports | Total Ports | PoE+ Enabled Ports | Switching Fabric | Forwarding Rate |
|----------------------|---------------------------|---------------------|-------------|--------------------|------------------|-----------------|
| <b>GS950/10 V2</b>   | 8                         | 2                   | 10          | -                  | 20Gbps           | 14.88Mpps       |
| <b>GS950/10PS V2</b> | 8                         | 2                   | 10          | 8                  | 20Gbps           | 14.88Mpps       |
| <b>GS950/18 V2</b>   | 16                        | 2                   | 18          | -                  | 36Gbps           | 26.78Mpps       |
| <b>GS950/18PS V2</b> | 16                        | 2                   | 18          | 16                 | 36Gbps           | 26.78Mpps       |
| <b>GS950/28 V2</b>   | 24                        | 4                   | 28          | -                  | 56Gbps           | 41.66Mpps       |
| <b>GS950/28PS V2</b> | 24                        | 4                   | 28          | 24                 | 56Gbps           | 41.66Mpps       |
| <b>GS950/52 V2</b>   | 48                        | 4                   | 52          | -                  | 104Gbps          | 77.38Mpps       |
| <b>GS950/52PS V2</b> | 48                        | 4                   | 52          | 24                 | 104Gbps          | 77.38Mpps       |

## Power Characteristics

|                      | No PoE Load           |                      |         | Full PoE+ Load        |                      |          | Max PoE Power | PoE sourcing ports |             |            |
|----------------------|-----------------------|----------------------|---------|-----------------------|----------------------|----------|---------------|--------------------|-------------|------------|
|                      | Max Power Consumption | Max Heat Dissipation | Noise   | Max Power Consumption | Max Heat Dissipation | Noise    |               | PoE (7.5W)         | PoE (15.4W) | PoE+ (30W) |
| <b>GS950/10 V2</b>   | 11W                   | 38.25 BTU/h          | Fanless | -                     | -                    | -        | -             | -                  | -           | -          |
| <b>GS950/10PS V2</b> | 25W                   | 119.43 BTU/h         | Fanless | 100W                  | 350.692 BTU/h        | Fanless  | 75W           | 8                  | 4           | 2          |
| <b>GS950/18 V2</b>   | 15W                   | 51.90 BTU/h          | Fanless | -                     | -                    | -        | -             | -                  | -           | -          |
| <b>GS950/18PS V2</b> | 75W                   | 255.91 BTU/h         | 41 dbA  | 260W                  | 890.948 BTU/h        | 47.1 dbA | 185W          | 16                 | 12          | 6          |
| <b>GS950/28 V2</b>   | 19W                   | 65.37 BTU/h          | Fanless | -                     | -                    | -        | -             | -                  | -           | -          |
| <b>GS950/28PS V2</b> | 95W                   | 324.15 BTU/h         | 41 dbA  | 270W                  | 919.383 BTU/h        | 52 dbA   | 185W          | 24                 | 12          | 6          |
| <b>GS950/52 V2</b>   | 38W                   | 128.80 BTU/h         | 48 dbA  | -                     | -                    | -        | -             | -                  | -           | -          |
| <b>GS950/52PS V2</b> | 150W                  | 511.82 BTU/h         | 38 dbA  | 520W                  | 1800.853 BTU/h       | 50 dbA   | 370W          | 24                 | 24          | 12         |

## Physical Specifications

|                      | Width             | Depth             | Height          | Weight            |
|----------------------|-------------------|-------------------|-----------------|-------------------|
| <b>GS950/10 V2</b>   | 280 mm (11.02 in) | 180 mm (7.09 in)  | 44 mm (1.73 in) | 1.6 kg (3.53 lb)  |
| <b>GS950/10PS V2</b> | 330 mm (13.00 in) | 180 mm (7.09 in)  | 44 mm (1.73 in) | 1.9 kg (4.19 lb)  |
| <b>GS950/18 V2</b>   | 330 mm (13.00 in) | 200 mm (7.87 in)  | 44 mm (1.73 in) | 2.2 kg (4.85 lb)  |
| <b>GS950/18PS V2</b> | 440 mm (17.32 in) | 250 mm (8.90 in)  | 44 mm (1.73 in) | 3.7 kg (8.16 lb)  |
| <b>GS950/28 V2</b>   | 330 mm (13.00 in) | 200 mm (7.87 in)  | 44 mm (1.73 in) | 2.3 kg (5.07 lb)  |
| <b>GS950/28PS V2</b> | 440 mm (17.32 in) | 250 mm (8.90 in)  | 44 mm (1.73 in) | 3.7 kg (8.16 lb)  |
| <b>GS950/52 V2</b>   | 440 mm (17.32 in) | 250 mm (8.90 in)  | 44 mm (1.73 in) | 3.6 kg (7.94 lb)  |
| <b>GS950/52PS V2</b> | 440 mm (17.32 in) | 431 mm (17.00 in) | 44 mm (1.73 in) | 6.1 kg (13.45 lb) |

## Performance

14,880pps for 10Mbps Ethernet  
 148,800pps for 100Mbps Ethernet  
 1,488,000pps for 1000Mbps Ethernet  
 MAC addresses: 16K  
 VLAN IDs available: 4K  
 Max VLANs: 256  
 Packet buffer: 1.5MB

DRAM: 256MB  
 Flash: 32MB

## Interface connections

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

## Technical specifications

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

## Environmental specifications

Operating temperature:  
 GS950/10 V2 0°C to 45°C (32°F to 113°F)  
 GS950/10PS V2 0°C to 40°C (32°F to 104°F)  
 GS950/18 V2 0°C to 45°C (32°F to 113°F)  
 GS950/18PS V2 0°C to 45°C (32°F to 113°F)  
 GS950/28 V2 0°C to 45°C (32°F to 113°F)  
 GS950/28PS V2 0°C to 45°C (32°F to 113°F)  
 GS950/52 V2 0°C to 45°C (32°F to 113°F)  
 GS950/52PS V2 0°C to 45°C (32°F to 113°F)  
 Storage 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

## Environmental compliance

RoHS  
 China RoHS  
 Eu-RoHS

## Electrical/mechanical approvals

UL62368  
 FCC/EN55022/CISPR 22 Class A  
 VCCI Class A  
 C-Tick  
 EN62368  
 EN55024  
 CE Mark  
 CSA / CUL

## STANDARDS & COMPLIANCE

|          |                                     |
|----------|-------------------------------------|
| RFC 792  | ICMP                                |
| RFC 854  | Telnet                              |
| RFC 1213 | MIB-II                              |
| RFC 1350 | TFTP                                |
| RFC 1492 | TACACS                              |
| RFC 1769 | SNTP (Simple Network Time Protocol) |
| RFC 2131 | DHCP client                         |
| RFC 2236 | IGMP                                |
| RFC 2461 | NDP (Neighbor Discovery protocol)   |
| RFC 2616 | HTTP                                |

|                |                                      |
|----------------|--------------------------------------|
| RFC 2866       | RADIUS                               |
| RFC 4251       | SSH                                  |
| RFC 4330       | SNTP                                 |
| RFC 5343       | SNMP                                 |
| RFC 6101       | 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.

|  |  |
|--|--|
| <b>AT-GS950/10 V2-xx<sup>2,4</sup></b>   | 8-port 10/100/1000T WebSmart switch with 2 SFP ports                       |
| <b>AT-GS950/10PS V2-xx<sup>2,4</sup></b> | 8-port 10/100/1000T POE (8 POE Enabled) WebSmart switch with 2 SFP ports   |
| <b>AT-GS950/18 V2-xx<sup>2,4</sup></b>   | 16-port 10/100/1000T WebSmart switch with 2 SFP ports                      |
| <b>AT-GS950/18PS V2-xx<sup>2,4</sup></b> | 16-port 10/100/1000T POE (16 POE Enabled) WebSmart switch with 2 SFP ports |
| <b>AT-GS950/28 V2-xx<sup>2,4</sup></b>   | 24-port 10/100/1000T WebSmart switch with 4 SFP ports                      |
| <b>AT-GS950/28PS V2-xx<sup>2,4</sup></b> | 24-port 10/100/1000T POE (24 POE Enabled) WebSmart switch with 4 SFP ports |
| <b>AT-GS950/52 V2-xx<sup>3,4</sup></b>   | 48-port 10/100/1000T WebSmart switch with 4 SFP ports                      |
| <b>AT-GS950/52PS V2-xx<sup>3,4</sup></b> | 48-port 10/100/1000T POE (24 POE Enabled) WebSmart switch with 4 SFP ports |
| <b>AT-BRKT-J22</b>                       | Wall Mount Brackets for GS950PS V2 Series                                  |

Where xx = 10 for US power cord  
30 for UK power cord  
40 for AU power cord  
50 for EU power cord

<sup>2</sup> Rack-mount kit is included. It can also be used for a wall-mount

<sup>3</sup> Rack-mount kit is included

<sup>4</sup> Trade Act Agreement compliant (TAA)

### Package contents

Switch unit  
Rack-mount brackets and screws  
Power cord  
Rubber feet

## Small Form Pluggable Optics Modules

|                       |  |
|-----------------------|--|
| <b>AT-SPSX</b>        | 1000SX SFP, LC, MMF, 850 nm                      |
| <b>AT-SPLX10</b>      | 1000LX SFP, LC, SMF, 1310 nm (10 km)             |
| <b>AT-SPFX/2</b>      | 2 km, 100FX (LC), 1310 nm                        |
| <b>AT-SPFX/15</b>     | 15 km, 100FX (LC), 1310 nm                       |
| <b>AT-SPBD10/I-13</b> | SFP, SMF, 1000Mbps, 10 km, 1310/1490 nm, LC-BiDi |
| <b>AT-SPBD10/I-14</b> | SFP, SMF, 1000Mbps, 10 km, 1490/1310 nm, LC-BiDi |
| <b>AT-SPBD20-13/I</b> | 20 km, 1G, SMF, BiDi, SC (1310Tx/1490Rx)         |
| <b>AT-SPBD20-14/I</b> | 20 km, 1G, SMF, BiDi, SC (1490Tx/1310Rx)         |
| <b>AT-SPBD40-13/I</b> | 40 km, 1G, SMF, BiDi, LC (1310Tx/1490Rx)         |
| <b>AT-SPBD40-14/I</b> | 40 km, 1 G, SMF, BiDi, LC (1490Tx/1310Rx)        |