

# GS950 PS Series

## GIGABIT WEBSMART POE+ EDGE SWITCHES

The Allied Telesis GS950 PS Series of WebSmart network switches features PoE+ for connectivity with security cameras, VoIP phones, RFID readers and wireless access points. The GS950 PS Series is a cost-effective solution for SMB, retail stores and at the edge of the network.



### Ease of Management and High Performance

These advanced Allied Telesis WebSmart switches integrate the simplicity of unmanaged switches with the performance and reliability of managed switches to provide an inexpensive, yet secure and reliable, solution for users to integrate management at the edge of their networks. With user-friendly web-based management, the GS950 Series is an ideal option for integrating simple management and security into a network solution.

### Power over Ethernet Plus (PoE+)

The GS950 PS Series is available in PoE configurations of 10-, 16- and 48-port. All three switches support PoE+ (IEEE 802.3at), with the capability of delivering up to 30W per port.

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

PoE+, with up to double the power of regular PoE, provides superior power-management capability, as automatic power allocation can be made on the exact requirement of the power device at any given time.

## 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 IEEE 802.1x Port-based and MAC-based

#### Network Access Control

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

#### RADIUS Client

#### DHCP Client

#### DHCP Snooping

#### Statistics Charts in Web Jumbo Frames - up to 10K

#### Others

- » 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
- » 100FX SFP support

#### Management Features

- » Web-based configuration
- » Discovery support
- » 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
- » Management IP: DHCP client for Web
- » Management and static IP setting
- » Syslog support
- » System time configuration (SNTP, manual)

#### 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

### Performance

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

### Interface Connections

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

### Environmental Compliance

RoHS  
Eu-RoHS  
China RoHS  
WEEE

### MTBF

263,000 hours  
Telcordia SR-332

### Environmental Specifications

Operating temperature: 0°C to 40°C (32°F to 104°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

### Technical Specifications

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

### Standards and Compliance

|                |                                      |
|----------------|--------------------------------------|
| 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 802.1d    | 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               |

### Electrical/Mechanical Approvals

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

### Product Contents

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

## Ordering Information

### GS950 PS Series Fast Ethernet Switches

#### AT-GS950/10PS-xx

10-port 10/100/1000T WebSmart switch with 2 SFP combo ports and PoE+

#### AT-GS950/16PS-xx

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

#### AT-GS950/48PS-xx

48-port 10/100/1000T WebSmart switch with 4 SFP combo ports and PoE+

### 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/2

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

#### AT-SPFX/15

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

#### AT-SPBD10-I3

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

#### AT-SPBD10-I4

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

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

| PRODUCT       | SWITCHING CAPACITY | FORWARDING RATE |
|---------------|--------------------|-----------------|
| AT-GS950/10PS | 20Gbps             | 14.88Mpps       |
| AT-GS950/16PS | 32Gbps             | 23.80Mpps       |
| AT-GS950/48PS | 96Gbps             | 71.42Mpps       |

### Physical Specifications and MTBF Figures

| PRODUCT       | WIDTH             | DEPTH           | HEIGHT         | WEIGHT              | MTBF (HOURS) |
|---------------|-------------------|-----------------|----------------|---------------------|--------------|
| AT-GS950/10PS | 330 mm (13 in)    | 200 mm (7.9 in) | 44 mm (1.7 in) | 1.9 Kg (4.20 lbs)   | >250,000     |
| AT-GS950/16PS | 430 mm (17 in)    | 250 mm (9.8 in) | 44 mm (1.7 in) | 3.56 Kg (7.85 lbs)  | >250,000     |
| AT-GS950/48PS | 440 mm (17.32 in) | 430 mm (17 in)  | 44 mm (1.7 in) | 6.62 Kg (14.60 lbs) | >250,000     |

### Power and Noise Characteristics

| PRODUCT       | MAX POWER CONSUMPTION | MAX HEAT DISSIPATION | NOISE                                   | VOLTAGE     | FREQUENCY |
|---------------|-----------------------|----------------------|-----------------------------------------|-------------|-----------|
| AT-GS950/10PS | 13.58W                | 316.107 (BUT/hr)     | Fanless                                 | 100-240V AC | 50-60Hz   |
| AT-GS950/16PS | 21.8W                 | 779.185 (BUT/hr)     | Low-speed 33 dB<br>High-speed 47.1 dB   | 100-240V AC | 50-60Hz   |
| AT-GS950/48PS | 55.5W                 | 1520.86 (BUT/hr)     | Low-speed 38.3 dB<br>High-speed 51.6 dB | 100-240V AC | 50-60Hz   |

### Power over Ethernet Port Support

| POWER SUPPLY UNIT | PoE POWER AVAILABLE | MAXIMUM PoE PORTS SUPPORTED |                      |                      |
|-------------------|---------------------|-----------------------------|----------------------|----------------------|
|                   |                     | IEEE 802.3af CLASS 2        | IEEE 802.3af CLASS 3 | IEEE 802.3at CLASS 4 |
| AT-GS950/10PS     | 75W                 | 8                           | 4                    | 2                    |
| AT-GS950/16PS     | 185W                | 16                          | 12                   | 6                    |
| AT-GS950/48PS     | 370W                | 24                          | 24                   | 12                   |



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