

# 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 a cost-effective, 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-, 24- and 48- port. All three switches support PoE+ (IEEE 802.3at), with the capability of delivering up to 30W per port (see chart below for max POE+ capable ports).

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 802.1x	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

**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 Gigabit PoE 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-GS950/28PS-xx\***  
24-port 10/100/1000T WebSmart switch with 4 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-SPBD10-13**  
SFP, SMF, 1000Mbps, 10 km, 1310/1490 nm, LC-BiDi

**AT-SPBD10-14**  
SFP, SMF, 1000Mbps, 10 km, 1490/1310 nm, LC-BiDi

\*Available Q3 2016

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-GS950/28PS*	56Gbps	41.65Mpps
AT-GS950/48PS	96Gbps	71.42Mpps

**Physical Specifications and MTBF Figures**

PRODUCT	WIDTH	DEPTH	HEIGHT	WEIGHT	MTBF (HRS)
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-GS950/28PS*	450 mm (17.71 in)	250 mm (9.8 in)	44 mm (1.7 in)	3.60 Kg (7.93 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 (BTU/hr)	Fanless	100-240V AC	50-60Hz
AT-GS950/16PS	21.8W	779.185 (BTU/hr)	Low-speed 33 dB High-speed 47.1 dB	100-240V AC	50-60Hz
AT-GS950/28PS*	32.37W	996.19 (BTU/hr)	Low-speed 35.6 dB High-speed 49.1 dB	100-240V AC	50-60Hz
AT-GS950/48PS	55.5W	1520.86 (BTU/hr)	Low-speed 38.3 dB 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-GS950/28PS*	185W	24	12	4
AT-GS950/48PS	370W	24	24	12