ZYXEL
NETWORKS

GS1350 Series
Smart Managed Switch for Surveillance

Zyxel introduces the GS1350 Series smart managed switches boasting specialized hardware and software features dedicated to surveillance deployments and applications. With a brand-new titanium grey exterior purpose-built for the surveillance sector, the Series includes four models with large power budgets of up to 375 W. In addition, the GS1350-6HP supports two 802.3bt PoE ports offering a maximum of 60 W per port to fulfill high power consumption PDs such as speed dome or PTZ IP cameras.

Benefits

Specialized features for surveillance

The Zyxel GS1350 Series offers several advanced features dedicated to surveillance applications. Featured with surveillance mode, administrators can manage, monitor and maintain surveillance network with an intuitive and surveillance minded web GUI with ease. In addition, it comes with advanced PoE management features such as Auto Camera Recovery and Continuous PoE to maintain a reliable surveillance network.

- **Surveillance mode**

  The standard switch interface includes an abundance of generic networking features for different types of applications, making it difficult for surveillance installers to setup a network. The surveillance mode offers an intuitive web interface, redesigning the traditional status monitoring for PoE devices and provides a quick access to the features that are needed for the surveillance sector, bringing an effortless experience for surveillance installers to setup and monitor a surveillance network.

NebulaFlex Pro allows users to switch between standalone management and intuitive Nebula cloud managed mode with 1-Year Pro Pack bundled

Dedicated surveillance mode

Auto camera recovery

Large power budget

Up to 250 meters transmission

Intuitive PoE usage LED

Enhanced surge & ESD protection

- **Automated camera recovery**

  IP-based PDs including cameras from time to time may become malfunctional due to various reasons, like software defect or harassed by malicious attempts. To reduce the efforts for administrators to recover faulty surveillance devices, the GS1350 Series is capable of detecting and recovering failed IP cameras and powered devices automatically with customizable granular parameters suitable for any types of devices and scenarios.

- **Continuous power over Ethernet**

  One of the biggest challenges in surveillance is maintenance. Built with the continuous PoE feature, the GS1350 Series provides uninterrupted power delivery to IP cameras and surveillance devices even if the switch is undergoing maintenance that requires firmware upgrades or reboots due to configuration changes. This greatly reduces the wait time for booting up all the cameras after a power recycle event of a switch.

NebulaFlex Pro – simply manage it your way!

The NebulaFlex Pro provides extended flexibility, especially for those who hesitate to step up for cloud networking. You can switch easily between Cloud Managed with a 1-Year Pro Pack License Bundled or Standalone Management. The NebulaFlex Pro even allows you to change your mind at any time without additional cost while protecting previous investments on wired technology. You can have the privilege to use advanced features with professional pack for one year upon registration on Nebula; these features include surveillance monitoring that provides insights to surveillance device information, auto PD recovery to rescue malfunctioned cameras, extended range for long distance deployments, along with more upcoming new features on NCC and its App.

Unique hardware features

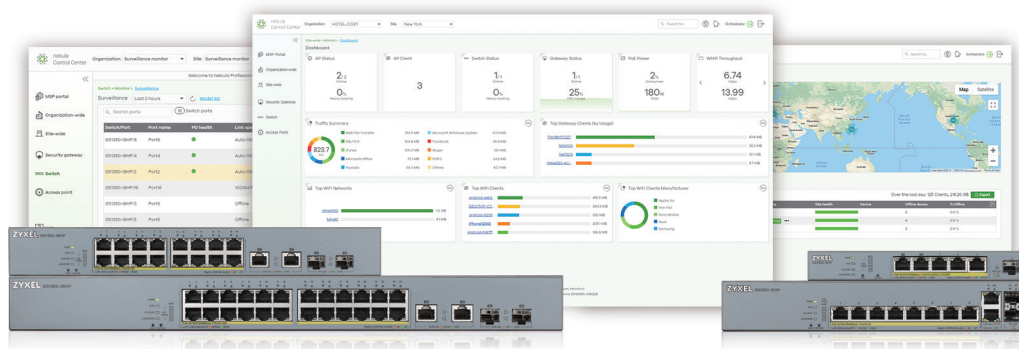- **Easy long-distance deployment**

  Traditionally, PoE switches deliver power and data with a distance limitation of 100 meters or less. The GS1350 Series fulfills the need to deploy IP camera or power devices beyond the limit. With the extended-range mode enabled, the GS1350 Series instantly enables distant deployments of up to 250 meters. Save your money and effort simply with one GS1350 PoE switch.

- **Handy tools on the front panel**

  The one-touch "Restore" button on GS1350 Series helps effortless recovery from misconfigurations, while its 5-segment LED allows users to instantly identify the PoE power usage. These handy designs are accessible from the front panel for quick, simplified troubleshooting.
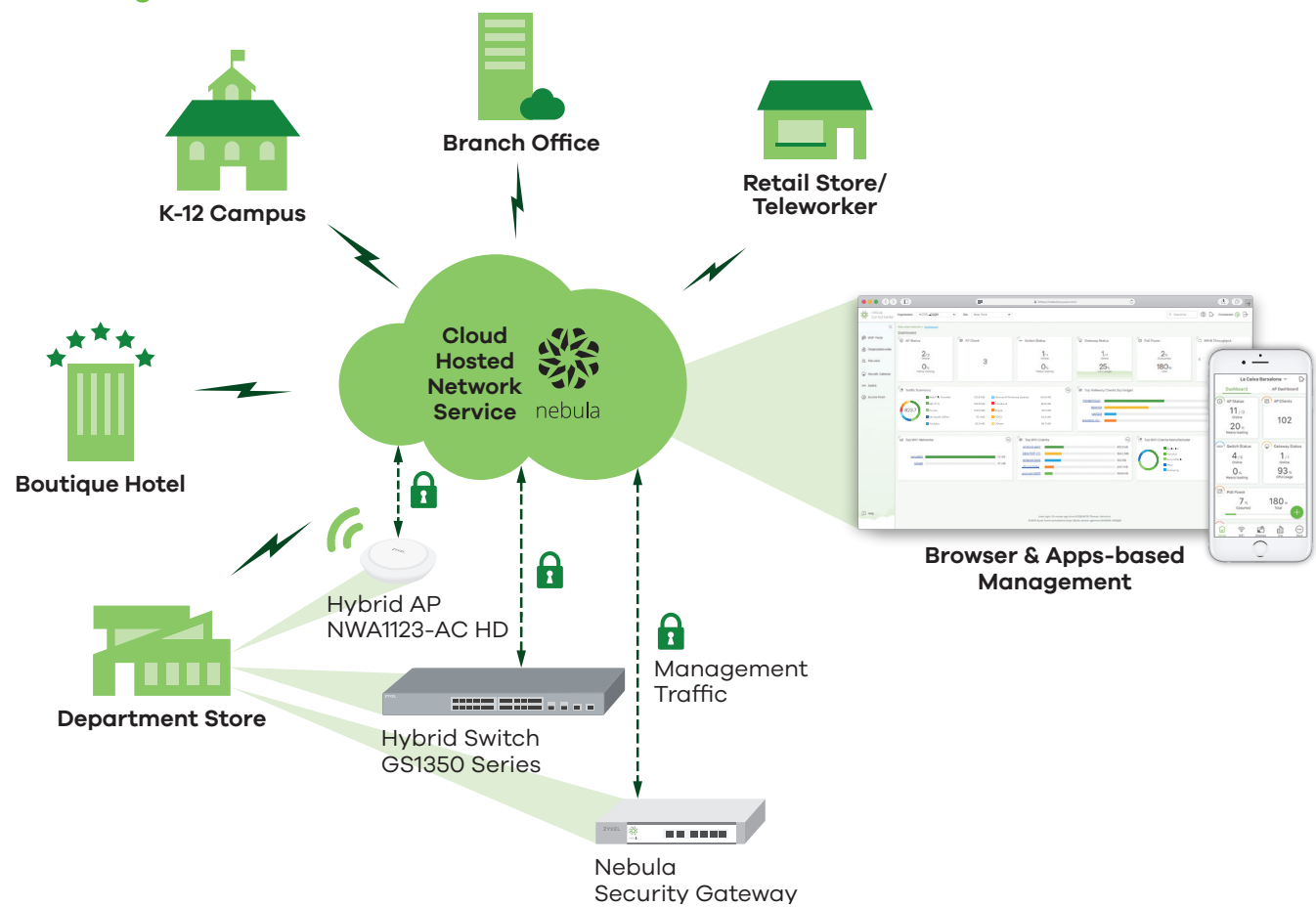
- **Tough protection on every port**

  Reliability and stability of the Switch are critical to a surveillance network. GS1350's patented design greatly enhances the surge and ESD (electrostatic discharge) protection on each PoE port, features up to 15 KV ESD and minimum of 4 KV surge protection guarding the switch from damage and network instability due to ESD and lightning surges.

Application Diagram

Cloud Management

K-12 Campus

Branch Office

Retail Store/ Teleworker

Boutique Hotel

Cloud Hosted Network Service
nebula

Department Store

Hybrid AP NWA1123-AC HD

Hybrid Switch GS1350 Series

Management Traffic

Nebula Security Gateway

Browser & Apps-based Management

Standalone Management

GS1350-26HP
24-port GbE Smart Managed PoE Switch with GbE Uplink

Lobby

Office

Parking lot

Remote camera

Power over Ethernet

250 meters

Specifications

Model	GS1350-6HP	GS1350-12HP	GS1350-18HP	GS1350-26HP
Product name	5-port GbE Smart Managed PoE Switch with GbE Uplink	8-port GbE Smart Managed PoE Switch with GbE Uplink	16-port GbE Smart Managed PoE Switch with GbE Uplink	24-port GbE Smart Managed PoE Switch with GbE Uplink
Switch class	Smart Managed	Smart Managed	Smart Managed	Smart Managed
Port Density				
Total port count	6	12	18	26
100/1000 Mbps	5	10	16	24
Gigabit SFP	1	2	-	-
Gigabit combo (RJ-45/SFP)	-	-	2	2
Configurable extended range ports	5	8	16	24
PoE				
PoE ports	5	8	16	24
Total PoE budget (watts)	60	130	250	375
PoE 802.3at (PoE+)	Yes 802.3bt (PoE++) on port 1-2	Yes	Yes	Yes
Performance				
Switching capacity (Gbps)	12	24	36	52
Forwarding rate (Mpps)	8.9	17.8	26.7	38.7
Packet buffer (byte)	525 K	525 K	525 K	525 K
MAC address table	8 K	8 K	8 K	8 K
Power				
Input	52 V - 57 V DC	100 - 240 V AC, 50/60 Hz	100 - 240 V AC, 50/60 Hz	100 - 240 V AC, 50/60 Hz
Max. power consumption (watt)	72	160.3	300.9	448.9
Physical Specifications				
Item	Dimensions (WxDxH) (mm/in.)	193 x 84 x 26/ 7.6 x 3.31 x 1.02	267 x 162 x 44/ 10.51 x 6.38 x 1.73	330 x 230 x 44/ 12.99 x 9.06 x 1.73	441 x 270 x 44/ 17.36 x 10.63 x 1.73
	Weight (kg/lb.)	0.41/0.9	1.63/3.59	2.42/5.34	3.58/7.89
Packing	Dimensions (WxDxH) (mm/in.)	242 x 255 x 65/ 9.53 x 10.04 x 2.56	375 x 235 x 81/ 14.76 x 9.25 x 3.19	391 x 338 x 80/ 15.39 x 13.31 x 3.15	622 x 355 x 110/ 24.49 x 13.98 x 4.33
	Weight (kg/lb.)	1.08/2.38	2.43/5.36	3.31/7.3	4.65/10.25
Included accessories	• Power adapter • Wall-mount kit	• Power cord • Rack mounting kit	• Power cord • Rack mounting kit	• Power cord • Rack mounting kit
Green Feature				
Fanless	Yes	-	-	-
ESD/Surge Protections				
Ethernet port surge protection	4 KV	4 KV	4 KV	4 KV
Power supply surge protection — Line-GND	4 KV	4 KV	4 KV	4 KV
Power supply surge protection — Line-Line	2 KV	2 KV	2 KV	2 KV
Ethernet port ESD protection (air/contact)	15 KV/8 KV	15 KV/8 KV	15 KV/8 KV	15 KV/8 KV

Model	GS1350-6HP	GS1350-12HP	GS1350-18HP	GS1350-26HP
Environmental Specifications				
Operating environment — **Temperature**	-20°C to 50°C/ -4°F to 122°F	-20°C to 50°C/ -4°F to 122°F	-20°C to 50°C/ -4°F to 122°F	-20°C to 50°C/ -4°F to 122°F
Humidity	5% to 95% (non-condensing)	5% to 95% (non-condensing)	5% to 95% (non-condensing)	5% to 95% (non-condensing)
Storage environment — **Temperature**	-40°C to 70°C/ -40°F to 158°F	-40°C to 70°C/ -40°F to 158°F	-40°C to 70°C/ -40°F to 158°F	-40°C to 70°C/ -40°F to 158°F
Humidity	5% to 95% (non-condensing)	5% to 95% (non-condensing)	5% to 95% (non-condensing)	5% to 95% (non-condensing)
MTBF (hr)	2,021,885.87	1,065,025.45	1,699,692.18	888,495
Heat dissipation (BTU/hr)	245.52	546.62	1,026.07	1,530.75
Acoustic noise @ 25°C (dBA)	0	27.3	39	40.1

Features

Standard Compliance
- IEEE 802.3 10Base-T Ethernet*
- IEEE 802.3u 100Base-Tx Ethernet*
- IEEE 802.3ab 1000Base-T Ethernet*
- IEEE 802.3z 1000Base-X*
- IEEE 802.3x flow control
- IEEE 802.3af PoE*
- IEEE 802.3at PoE+*
- IEEE 802.3bt PoE++ (Port 1 and 2 for GS1350-6HP)*
- IEEE 802.3az EEE support/Green Ethernet
- IEEE 802.1p CoS support*

Resilience and Availability
- IEEE 802.1D Spanning Tree Protocol (STP)*
- IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)*
- IEEE 802.3ad LACP (Max # Trunks/ Links per Trunk)* :
  - GS1350-6HP: 3/6
  - GS1350-12HP: 6/8
  - GS1350-18HP: 8/8
  - GS1350-26HP: 8/8
- Loop guard*
- Dual configuration files
- Dual images*

Traffic Control
- 802.1Q Static VLANs: 256*
- Port-based VLAN
- Voice VLAN*
- MAC-based VLAN
- Vendor ID based VLAN*
- VLAN Trunking*
- LACP algorithm of source/ destination IP

Security
- Layer 2 MAC filtering

- Static MAC forwarding
- SSH v2
- SSL
- Port isolation*
- **New for V4.70** Port security
- **New for V4.70** MAC freeze
- CPU protection
- SHA2 HTTPS Certification
- Login authentication by RADIUS
- RADIUS accounting
- Authorization on RADIUS
- Multiple RADIUS servers
- DHCP Snooping

Quality of Service (QoS)
- 802.1p queuing methods: SPQ, WRR, WFQ
- Storm control: broadcast, multicast, unknown unicast (DLF)*
- Port-based rate limiting (ingress/ egress)*
- 802.3x flow control
- 802.1p Class of Service (SPQ, WFQ, SPQ/WFQ combination capable)
- DiffServ (DSCP)

Layer 2 Multicast
- L2 Multicast*
- Static L2 Multicast Forwarding
- IGMP snooping (v1, v2, v3)*

Manageability
- SNMP v1, v2c, v3
- SNMP trap group
- RMON (1, 2, 3, 9)
- ICMP echo/echo reply
- Syslog*
- Display port utilization*
- IEEE 802.1AB LLDP
- IEEE 802.1AB LLDP-MED
- Custom default

- Support NebulaFlex Pro for Cloud Management

PoE Management
- Power-up mode selection*
- Scheduled PoE*
- Neighbor PD detection*
- **New for V4.70** ONVIF camera detection
- Auto PD recovery*
- Continuous PoE
- PoE consumption/classification modes*
- Port PoE Priority*
- Customizable maximum power per port
- PoE Wide range detection
- LLDP-Power via MDI

IPv6 Management
- IPv6 over Ethernet (RFC 2464)
- IPv6 addressing architecture (RFC 4291)
- Dual stack (RFC4213)
- ICMPv6 (RFC4884)
- Path MTU (RFC 1981)
- Minimum Path MTU size of 1280 (RFC 5905)
- Encapsulation for maximum PMTU size of 1500
- Neighbor Discovery (RFC4861)

Device Management
- Standalone management by Web interface
  - Standard mode
  - **New for V4.70** Surveillance mode
- Cloud management by Nebula Control Center*
- Setup Wizard
- Full managed CLI through Telnet/ SSHv2

- Management through Web, SNMP
- Remote firmware upgrade by FTP/Web
- Configuration saving and retrieving
- Configure clone
- DHCP client*
- DHCP relay per VLAN
- Daylight saving*
- NTP (IPv4/IPv6)
- Port mirroring*
- Restore to last custom default

MIB

- Zyxel private common MIB
- RFC 1066 TCP/IP-based MIB
- RFC 1213, 1157 SNMPv2c/v3 MIB
- RFC 1493 bridge MIB
- RFC 1643 Ethernet MIB
- RFC 1757 RMON group 1, 2, 3, 9
- RFC 2011, 2012, 2013 SNMPv2 MIB
- RFC 2233 SMIv2 MIB
- RFC 2358 Ethernet-like MIB
- RFC 2674 bridge MIB extension
- RFC 2819, 2925 Remote Management MIB
- RFC 3621 Power Ethernet MIB
- RFC 4293 Management Information Base (MIB) for IP
- RFC 4292 IP forwarding table MIB
- RFC 4022 management information base for transmission control protocol
- RFC 4113 management information base for user datagram protocol

Zyxel One Network

ZON Utility*
- Discovery of Zyxel switches, APs and gateways
- Centralized and batch configurations:
  - IP configuration
  - IP renew
  - Device factory reset
  - Device reboot
  - Device locating
  - Web GUI access
  - Password configuration
  - One-click quick association with Zyxel AP Configurator (ZAC)
- Automatic detection of the latest firmware
- Displays device serial number and hardware version
- Cloud mode on/off option for Hybrid series devices

Smart Connect
- Discover neighboring devices
- One-click remote management access to the neighboring Zyxel devices
- Reset neighboring devices remotely to factory defaults
- Power cycle neighboring powered devices (PoE switches only)

Certifications
- EMC:
  - CE, FCC, C-Tick, Class A
  - BSMI CNS13438
- Safety:
  - LVD EN62368-1
  - BSMI CNS14336-1
- RoHS compliant

Installation Features
- Ethernet port lightning surge protection
- Power supply lightning surge protection
- ESD (electrostatic discharge) protection
- Extended range of up to 250 meters*   & **
  - Fixed link speed at 10 Mbps
  - Limited to 802.3af PDs and cameras

Warranty
- Limited life-time warranty***

* Cloud and standalone modes supported features.

** Extended range excels long range installation but the actual performance may be effected by cabling quality or IP camera's electrical design. We recommend users to test for IOP before physical deployment. Contact Zyxel for IP camera's interoperability report.

*** Warranty terms, service availability, and service response times may vary from country or region to country or region.

Accessories

Transceivers (Optional)

Model	Speed	Connector	Wavelength	Max. Distance	DDMI
SFP-1000T	Gigabit	RJ-45	-	0.1 km (109 yd)	-
SFP-SX-D	Gigabit	LC	850 nm	0.55 km (601 yd)	Yes
SFP-SX-E	Gigabit	LC	850 nm	0.55 km (601 yd)	Yes
SFP-LX-10-D	Gigabit	LC	1310 nm	10 km (10936 yd)	Yes
SFP-LX-10-E	Gigabit	LC	1310 nm	10 km (10936 yd)	Yes
SFP-LHX1310-40-D	Gigabit	LC	1310 nm	40 km (43744 yd)	Yes
SFP-ZX-80-D	Gigabit	LC	1550 nm	80 km (87488 yd)	Yes
SFP-BX1310-10-D	Gigabit	LC	1310 nm (Tx) 1490 nm (Rx)	10 km (10936 yd)	Yes
SFP-BX1310-E	Gigabit	LC	1310 nm (Tx) 1550 nm (Rx)	20 km (21872 yd)	Yes
SFP-BX1490-10-D	Gigabit	LC	1490 nm (Tx) 1310 nm (Rx)	10 km (10936 yd)	Yes
SFP-BX1550-E	Gigabit	LC/SC	1550 nm (Tx) 1310 nm (Rx)	20 km (21872 yd)	Yes