



Gazelle S1020i-PWH-GL / Gazelle S1020i-PWR-GL

The Gazelle S1020i-PWH/PWR-GL is an industrial PoE switch designed to meet various industrial communication requirements. It can work stably for a long time in harsh environments.

The Gazelle S1020i-PWH-GL Complying with IEEE 802.3af/at/bt, it supports outputting up to 90 W power per port.

The Gazelle S1020i-PWR-GL Complying with IEEE 802.3af/at, it supports outputting up to 30 W power per port.

The Gazelle S1020i-PWH/PWR-GL features good adaptability in industrial environments (including mechanical stability, atmosphere environment adaptability, electromagnetic environment adaptability), and IP40 protection class. It supports dual power supply redundancy, digital input, and low-consumption fanless heat dissipation. It provides a 3-year warranty. Besides the electric power field, it can be widely applied to land transportation, sea transportation, coal, petroleum, metallurgy, and water treatment.

Gazelle S1020i-2GF-4GE-PWH-GL



Gazelle S1020i-4GF-8GE-PWH-GL



Gazelle S1020i-2GF-8GE-PWR-GL



Highlights

- Fanless design, IP40-compliant
- ITU G.8032 (recovery time < 50 ms @ 250 switches)
- 2 Digital Input (DI), 1 Relay Output (only PWH model)
- Support POE/POE+/POE++, Max 90W Output per port (only PWH model)
- DHCP-based auto-configuration, configuration LED provided
- SNMP v1/v2c/v3, Raisecom Network Management System (NMS), CLI, Web management, and Telnet
- Operating temperature: -40 to 75° C
- Support dual power supply input with the voltage range of 45 – 57 VDC.
- MTBF ≥ 35 years

Application>>

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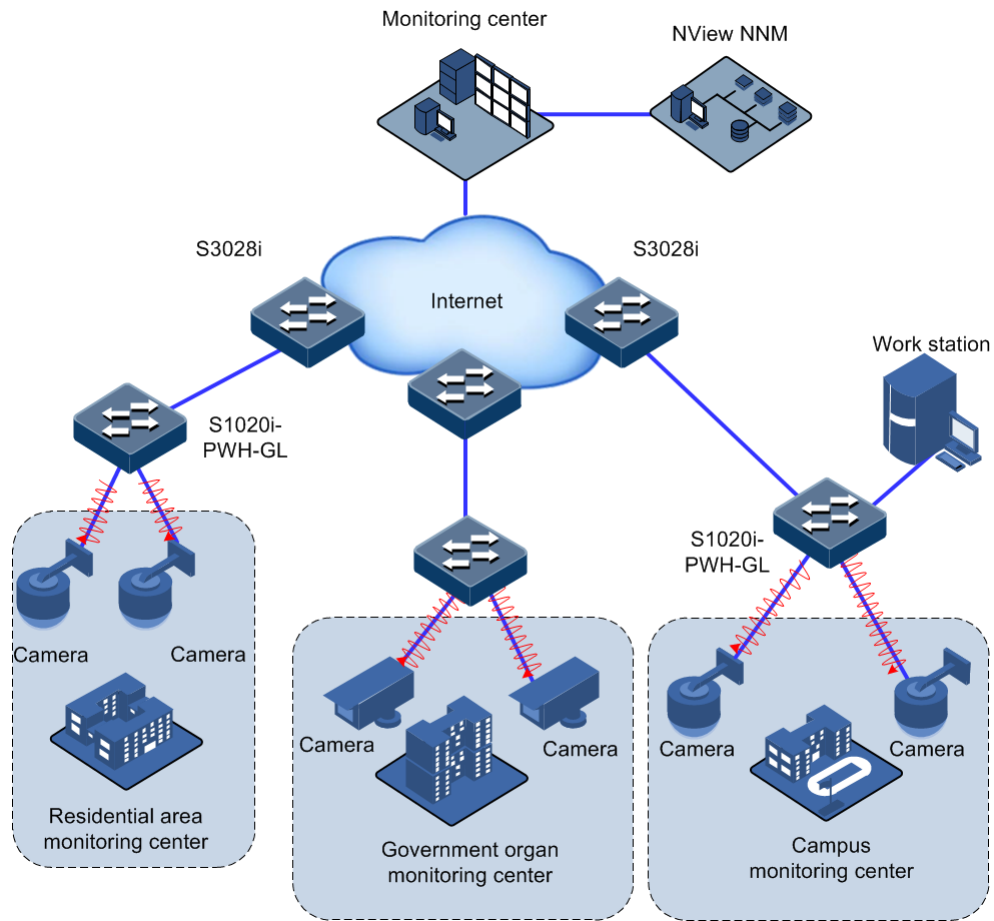


Figure 1 Video monitoring for Safe City project

Video monitoring for Safe City project

The Gazelle S1020i-PWH-GL, as the PoE switch, provides power and transmits data through PoE for PDs, such as cameras and wireless APs.

Features>>

- | | |
|---------------------|---|
| Product description | <p>Gazelle S1020i-2GF-4GE-PWH-GL-DC48</p> <ul style="list-style-type: none"> ● Two 1000Base-X SFP Ports (support 100Base-FX SFP) ● Four 10/100/1000 Mbit/s Ethernet electrical ports ● Support POE/POE+/POE++ (IEEE802.3 af/at/bt) , Max 90W Output per port ● Provide up to 180 W PoE power totally. ● 2 Digital Inputs, and 1 Relay Output ● Dual DC power input (45-57 VDC) ● 4Mbit packet buffer |
|---------------------|---|

Gazelle S1020i-4GF-8GE-PWH-GL-DC48



- Four 1000Base-X SFP Ports (support 100Base-FX SFP)
- Eight 10/100/1000 Mbit/s Ethernet electrical ports
- Support POE/POE+/POE++ (IEEE802.3 af/at/bt) , Max 90W Output per port
- Provide up to 360 W PoE power totally.
- 2 Digital Inputs, and 1 Relay Output
- Dual DC power input (45–57 VDC)
- 4Mbit packet buffer

Gazelle S1020i-2GF-8GE-PWR-GL-DC48

- Two 1000Base-X SFP Ports (support 100Base-FX SFP)
- Eight 10/100/1000 Mbit/s Ethernet electrical ports
- Support POE/POE+ (IEEE802.3 af/at) , Max 30W Output per port
- Provide up to 240 W PoE power totally.
- Dual DC power input (45–57 VDC)
- 4Mbit packet buffer

Switching capacity

Gazelle S1020i-2GF-4GE-PWH: 12Gbps
 Gazelle S1020i-4GF-8GE-PWH: 24Gbps
 Gazelle S1020i-2GF-8GE-PWR: 20Gbps

Packet forwarding rate

Gazelle S1020i-2GF-4GE-PWH: 8.93Mpps
 Gazelle S1020i-4GF-8GE-PWH: 17.86Mpps
 Gazelle S1020i-2GF-8GE-PWR: 14.89Mpps

Interface

- GF: 1000Base-F port (support 100Base-Fx SFP)
- GE: 10/100/1000 Mbit/s Ethernet RJ45 port

Ring network protection

- ERPS (G.8032)
- STP/RSTP/MSTP/MRSTP
- BPDU guard and root guard
- Loop detection protection

Reliability

- Manual aggregation and static LACP
- Interface backup
- ERPS (G.8032)
- Loop detection protection

IPV6

- IPv6 Ping, IPv6 Tracert, IPv6 Telnet, and IPv6 FTP/TFTP/SFTP
- IPv6 SNMP and Raisecom IPv6 NView NNM system (network management)
- IPV6 RADIUS, IPV6 TACACS+, IPV6 NTP, and SNTP
- IPV6 ACL

Multicast

- IGMP v1/v2/v3 Snooping and immediate leave
- Immediate leave based on interface or user
- Static multicast group
- MLD Snooping v1/v2

QoS/ACL

- Rate limiting in the ingress and/or egress direction of interfaces
- Each port supports 8 queues.

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	<ul style="list-style-type: none">● SP, WRR, DRR, SP+WRR, and SP+DRR scheduling modes● Packet redirection● Remarking 802.1p and DSCP priority of packets● Traffic policing based on interface and dual-rate three-color CAR● L2-L4 packet filtering based on SMAC, DMAC, SIP, DIP, TCP/UDP source/destination port number, protocol, or VLAN
Security	<ul style="list-style-type: none">● Hierarchical user management and password protection● 802.1x authentication based on interface or MAC address● CPU protection and anti-ARP protection● Binding with combinations of IP address, MAC address, interface, and VLAN● Blackhole MAC address● MAC address limit● AAA accounting, including RADIUS and TACACS+ accounting● Interface isolation● Port security MAC● SSH V2.0● SFTP● https/ssl● DHCP Snooping for preventing spoofing DHCP servers● Dynamic ARP inspection, man-in-the-middle attack, ARP DOS● BPDU guard and Root guard
Management and maintenance	<ul style="list-style-type: none">● Console interface and out-of-band interface management● SNMPv1/v2c/v3, CLI, Web, Telnet, and SSH2.0 management modes● Raisecom NView NNM system● RMON● LLDP/LLDP-MED● System log and hierarchical alarms● Ping and Tracert● Dying gasp alarm● NTP and SNTP● Virtual cable test● Interface loopback● DHCP-based auto-configuration● Loop detection on interfaces● Optical module DDM● Link-state tracking● DLDP● Dual systems
POE	<ul style="list-style-type: none">● IEEE 802.3af, IEEE 802.3at, and IEEE802.3bt power supply, with up to 90 W power supplied per interface● Forcible power supply for non-standard PDs

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- PoE management, including enabling/disabling power supply for interfaces, configuring interface output power, configuring power supply priority, power overload protection, and overtemperature protection
- Timed PoE power supply, periodically restarting PDs, monitoring PD connection status and restarting PDs upon PD disconnection

MTBF > 35 years

Specifications>>

Dimensions	<ul style="list-style-type: none"> ● Gazelle S1020i-2GF-4GE-PWH-GL: 80 mm (Width) × 130 mm (Depth) × 150 mm (Height) ● Gazelle S1020i-4GF-8GE-PWH-GL: 98 mm (Width) × 155 mm (Depth) × 177 mm (Height) ● Gazelle S1020i-2GF-8GE-PWR-GL: 80 mm (Width) × 130 mm (Depth) × 150 mm (Height)
Weight	<ul style="list-style-type: none"> ● Gazelle S1020i-2GF-4GE-PWH-GL: 0.9 kg ● Gazelle S1020i-4GF-8GE-PWH-GL: 1.5 kg ● Gazelle S1020i-2GF-8GE-PWR-GL: 1.2 kg
Power supply	<p>Input voltage:</p> <ul style="list-style-type: none"> ● 45–57 VDC (IEEE 802.1af) ● 50–57 VDC (IEEE 802.1at) ● 52–57 VDC (IEEE 802.1bt)
Operating environment	<ul style="list-style-type: none"> ● Operating temperature: -40 to 75 °C ● Storage temperature: -40 to 85 °C ● Humidity: 5%–90% (non-condensing)
Maximum power consumption	<ul style="list-style-type: none"> ● Gazelle S1020i-2GF-4GE-PWH-GL ● System power consumption: ≤ 200 W ● PoE output power: ≤ 180 W ● Gazelle S1020i-4GF-8GE-PWH-GL ● System power consumption: ≤ 380 W ● PoE output power: ≤ 360 W ● Gazelle S1020i-2GF-8GE-PWR-GL ● System power consumption: ≤ 260 W ● PoE output power: ≤ 240 W

Standards and protocols>>

IEC61000-4-3 (RS-): 10V/m (80–1000 MHz)
IEC61000-4-4 (EFT): ±2 kV for power cables and ±4 kV (5

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Standards and protocols	<p>IEEE 802.3</p> <p>IEEE 802.3af/at/bt</p> <p>IEEE 802.3u for 100BaseT(X) and 100Base FX</p> <p>IEEE 802.3z for 1000BaseSX/LX/LHX/ZX</p> <p>IEEE 802.3x for Flow Control</p> <p>IEEE 802.1D for Spanning Tree Protocol</p> <p>IEEE 802.1S for Per Vlan Spanning Tree Protocol</p> <p>IEEE 802.1W for Rapid STP</p> <p>IEEE 802.1Q for VLAN Tagging</p> <p>IEEE 802.1p for Quality of Service</p> <p>IEC61000-4-2 (ESD): ±6 kV for contact discharge and ±8 kV for air discharge</p>	<p>kHz, 100 kHz) for data cables</p> <p>IEC61000-4-5 (Surge): CM±2 kV/DM±1 kV for power cables and CM±4 kV for data cables</p> <p>IEC61000-4-6 (RF conduction): 10 V (150 kHz to 80 MHz)</p> <p>IEC61000-4-8 (power frequency magnetic field): 100 A/m for lasting; 1000 A/m , 1s–3s</p> <p>IEC61000-4-9 (pulsed magnet field): 300 A/m</p> <p>IEC61000-4-10 (damped oscillation magnetic field): 30 A/m@1MHz</p> <p>IEC61000-4-12/18 (shock wave): CM 2.5 kV; DM 1kV</p> <p>FCC Part 15/CISPR22 (EN55022): Class A</p> <p>IEC61000-6-2 (common industrial standards)</p> <p>IEC60068-2-6 (anti-vibration)</p> <p>IEC60068-2-27 (anti-shock)</p> <p>IEC60068-2-32 (free fall)</p>
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Ordering information>>

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<p>Gazelle</p> <p>S1020i-4GF-8GE-PWH-GL-DC48</p>	<ul style="list-style-type: none"> ● Four 1000Base-X SFP Ports (support 100Base-FX SFP) ● Eight 10/100/1000 Mbps Ethernet electrical ports ● Support POE/POE+/POE++ (IEEE802.3 af/at/bt) , Max 90W Output per port ● Provide up to 360 W PoE power totally. ● 2 Digital Inputs, and 1 Relay Output ● Dual DC power input (44–57 VDC)
<p>Gazelle</p> <p>S1020i-2GF-8GE-PWR-GL-DC48</p>	<ul style="list-style-type: none"> ● Two 1000Base-X SFP Ports (support 100Base-FX SFP) ● Eight 10/100/1000 Mbps Ethernet electrical ports ● Support POE/POE+ (IEEE802.3 af/at) , Max 30W Output per port ● Provide up to 240 W PoE power totally. ● Dual DC power input (44–57 VDC)

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