Gazelle S1020i

Gazelle S1020i | L2 Manageable Industrial Switch

Product Overview

The Gazelle S1020i is a Layer 2 Din-Rail manageable industrial switch designed to satisfy the requirements of data transmission in areas of smart grid (IEC 61850-3, IEEE 1613), transportation (EN50121-4), energy and industrial automation. The design enables maximum flexibility among electrical, SFP interfaces. It supports up to 4 GE uplinks, and 16 FE downlinks. Network redundancy and reliability are guaranteed with LACP, G.8032 ERPS (<50ms switch-over time), and 24/48 VDC or 110/220 VDC/VAC power supply.

Highlights

- Compliant with IEC 61850-3 and IEEE 1613 (power substations) as well as EN50121-4 (railway applications)
- Support standardized G.8032 Ethernet ring protection switching with a recovery time less than 50ms
- LACP for optimizing bandwidth utilization
- VLAN and flexible QinQ
- Wide operating temperature range
- IP40 protection level
- Rugged Din-Rail design
- MTBF: 306,600 hours

Specifications

Interface:

4 x 1000Base-FX SFP optical Ports

16 x 100Base-TX RJ-45 electrical Ports

SNMP/Console: 1 x RJ45

Relay alarm output: 1x1 S.P.D.T.

Dimensions: 177mm(L)× 55mm(W) x90mm(H)

Weight: 1Kg

Installation: Din-Rail, wall mountable, rack-mountable(tray installed)

Operating temperature: - 40 to 85°C

Storage temperature: -40 to 85°C

Humidity: 5% to 95%, non-condensing

Power supply (input Voltage):

- DC 24/48V (18-72V)

- AC/DC 110/220V (AC: 85-300V; DC: 77-400V)

Power consumption: <25W

Access Capacity

- MTU: 9K byte
- Switching buffer size: 12Mbit

Ethernet

- Up to 8k MAC
- Support 4,094 VLANs, flexible QinQ
- IEEE 802.3x and back pressure flow controls
- N:1 port-based mirror and flow-based mirror

IP Services

- DHCP client/snooping/option82
- IGMP snooping v1/v2/v3, multicast filtering, unknown multicast discard, static multicast group

Traffic Management

- Service classification per port/VLAN/CoS (DSCP)
- Support SP（Strict Priority）, WRR（Weighted Round Robin）, WDRR, 8SP, 1SP+7WDRR/RR, 2SP+6WDRR/RR, 3SP+5WDRR/RR, 4SP+4WDRR/RR, 8WDRR/RR scheduling modes and up to 4 queues

per port

- Flow statistics and flow-based mirroring
- Rate limit per port/VLAN/CoS (DSCP)
- Traffic shaping in egress direction

Security

- Secure MAC address
- RADIUS, TACACS+
- User management and password protection
- PPPoE Agent
- dot1x, port protection
- Storm control (broadcast, multicast, DLF)

Reliability

- Link aggregation group (LAG) – up to 14 groups with maximum 8 ports in each group, and load balancing mode based on source/destination IP and/or MAC
- STP/RSTP/MSTP, G.8032 ERPS (recovery time less than 50ms), and IEC62439-6 redundant ring protections
- Port-based Ethernet local loop detection: auto shutdown and recover individual port upon fault signals

Ethernet OAM

- IEEE 802.1ah EFM-OAM link management
- Dying gasp message in case of power failure

System Management

- Remote management via SNMP v1/v2c/v3, Telnet, CLI and SSH v1/v2
- Local management via console interface
- Raisecom Nview NMS/EMS
- KeepAlive, RMON, Syslog
- Relay output alarm, Dry contact alarm, and trap alarm management

Standard Compliance

- IEEE 802.1Q (VLAN), 802.1ad (QinQ), 802.1D (STP), 802.1w (RSTP), 802.1s (MSTP), 802.1p (QoS/CoS Priority), 802.1x (Security), 802.3ad (LAG), 802.1ah (EFM), 802.3x (Flow control), 1613(sub-station)
- ITU-T G.8032 (ERPS)
- IEC61000-4-2 (ESD), 61000-4-3 (RS), 61000-4-4 (EFT), 61000-4-5 (Surge), 61000-4-6(RF transmission), 61000-4-8 (Power frequency magnetic fields), 61000-4-9 (Pulsed magnet field), 61000-4-10 (Damped oscillation), 61000-4-12/18 (Shockwave), 61000-4-16 (Common-mode conduction), 61000-6-2 (General industrial standard), 60068-2-6 (Anti-vibration), 60068-2-27 (Shock resistance), 60068-2-32 (Free falling), 61850-3 (transformer substation)
- FCC Part 15/CISPR22 (EN55022): Class A
- In compliance with KEMA, CE and ROHS

Ordering Information

Model	Description
Gazelle S1020i-4GF16FE-AC	L2 Din-Rail manageable industrial switch with 4 x 1000Base-FX SFP optical Ports, 16 x 100Base-TX RJ-45 electrical Ports and 220V AC power supply