



# $Gazelle\ S1210i\ |\ L2\ Manageable\ EN50155\ Industrial\ Switch$

#### **Product Overview**

The Gazelle S1210i is a Layer 2 Din-Rail manageable EN50155 industrial switch designed to satisfy the requirements of data transmission especially in area of railway transportation. It supports up to 2 GE uplinks and 8/16 FE downlinks with M12 connector. It also adopts fanless design, protection up to IP67, and redundant power supply. Network redundancy and reliability are guaranteed with LACP, G.8032 ERPS (<30ms switch-over time), and AC220V, DC110V, 24VDC, 48VDC power supplies.

#### **Highlights**

- Compliant with EN50155 (railway applications)
- Compliant with IEC 61850-3 and IEEE 1613 (power substations)
- Support standardized G.8032 Ethernet ring protection switching with a recovery time less than 30ms
- LACP for optimizing bandwidth utilization
- VLAN and flexible QinQ
- Wide operating temperature range
- IP67 protection level
- · Rugged Din-Rail design
- MTBF>35 years

## **Specifications**

Interface:

2\*100Base-FX/ 1000Base-X optical M12 Ports

8/16\*10/100Base-T electrical M12 Ports Console: 1\*DB9 convert to M12 port

USB: 1\*USB convert to M12 port

Relay alarm output: 1\*1 S.P.D.T. Dimensions: 261mm(L)× 189mm(W) x55mm(H)

Weight: 1.8Kg

Installation: 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 24V (10-36V)

-DC 48V (20-72V)

-DC 110V (66-154V)

-AC 220V(85-264V)

Power consumption: <13W

## **Access Capacity**

MTU: 9K byte

Switching buffer size: 12Mbit

## **Ethernet**

- Up to 8k MAC
- Support 4,094 VLANs, basic QinQ
- IEEE 802.3x and back pressure flow controls

N:1 port-based mirror and vlan-based mirror

#### **IP Services**

- DHCP client/snooping/option82
- IGMP snooping v1/v2/v3, multicast filtering, unknown multicast discard, static multicast group, 1024 multicast group, GMRP, GARP

**Traffic Management** 

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- Service classification per port/VLAN/CoS (DSCP)
- Support SP, 1SP+3WRR, 2SP+2WRR, WRR and up to 4 queues per port
- Rate limit per port/VLAN/CoS (DSCP)

#### 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 16 groups with maximum 8 ports in each group, and load balancing mode based on MAC
- STP/RSTP/MSTP, G.8032 ERPS (recovery time less than 30ms), 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 802.3, IEEE 802.3u, IEEE 802.3ab, IEEE802.3z,
   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)
- EN50155
- 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 S1210i-2GF-8FE –M/S1/S2/S3/SS13/SS15-DCW24/D	L2 EN50155 industrial switch with 2*100Base-FX/
	1000Base-X optical M12 Ports(optional dual-fiber
	bidirectional single mode S1,S2,S3;multi mode M and single
	fiber bidirectional SS13,SS15 SFPs),8*10/100Base-T
	electrical M12 Ports, and dual 24VDC(10-36V) power
	supplies
Gazelle S1210i-2GF-8FE –M/S1/S2/S3/SS13/SS15-DCW48/D	L2 EN50155 industrial switch with 2*100Base-FX/
	1000Base-X optical M12 Ports(optional dual-fiber
	bidirectional single mode S1,S2,S3;multi mode M and single
	fiber bidirectional SS13,SS15 SFPs),8*10/100Base-T
	electrical M12 Ports, and dual 48VDC(20-72V) power

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	supplies
Gazelle S1210i-2GF-8FE –M/S1/S2/S3/SS13/SS15-DC110/D	L2 EN50155 industrial switch with 2*100Base-FX/
Gazelle 212101-2GF-8FE -M/21/24/23/2213/2212-DC110/D	1000Base-X optical M12 Ports(optional dual-fiber
	bidirectional single mode S1,S2,S3;multi mode M and single
	fiber bidirectional SS13,SS15 SFPs),8*10/100Base-T
	electrical M12 Ports, and dual 110 VDC(66-154V) power
	supplies
Cazalla \$1310i 3CE 9EE _M/\$1/\$3/\$3/\$\$12/\$\$1E AC/D	L2 EN50155 industrial switch with 2*100Base-FX/
Gazelle S1210i-2GF-8FE –M/S1/S2/S3/SS13/SS15-AC/D	1000Base-X optical M12 Ports(optional dual-fiber
	bidirectional single mode \$1,\$2,\$3;multi mode M and single
	fiber bidirectional SS13,SS15 SFPs),8*10/100Base-T
	electrical M12 Ports, and dual 220V AC(85-264V) power supplies
Gazelle S1210i-2GF-16FE –M/S1/S2/S3/SS13/SS15-DCW24/D	L2 EN50155 industrial switch with 2*100Base-FX/
Guzene 31210-201-101 L 101/34/34/33/3313/3313-DCW24/D	1000Base-X optical M12 Ports(optional dual-fiber
	bidirectional single mode S1,S2,S3;multi mode M and single
	fiber bidirectional SS13,SS15 SFPs),16*10/100Base-T
	electrical M12 Ports, and dual 24VDC(10-36V) power
	supplies
Gazelle S1210i-2GF-16FE –M/S1/S2/S3/SS13/SS15-DCW48/D	L2 EN50155 industrial switch with 2*100Base-FX/
Gazene 312101-201-101E 101/34/34/33/3313/3313-DCW449/D	1000Base-X optical M12 Ports(optional dual-fiber
	bidirectional single mode S1,S2,S3;multi mode M and single
	fiber bidirectional SS13,SS15 SFPs),16*10/100Base-T
	electrical M12 Ports, and dual 48VDC(20-72V) power
	supplies
Gazelle S1210i-2GF-16FE –M/S1/S2/S3/SS13/SS15-DC110/D	L2 EN50155 industrial switch with 2*100Base-FX/
Gazene 31210/ 20/ 10/2 11//04/04/09/0019/0019	1000Base-X optical M12 Ports(optional dual-fiber
	bidirectional single mode S1,S2,S3;multi mode M and single
	fiber bidirectional SS13,SS15 SFPs),16*10/100Base-T
	electrical M12 Ports, and 110 VDC(66-154V) dual power
	supplies
Gazelle S1210i-2GF-8FE –M/S1/S2/S3/SS13/SS15-AC/D	L2 EN50155 industrial switch with 2*100Base-FX/
	1000Base-X optical M12 Ports(optional dual-fiber
	bidirectional single mode S1,S2,S3;multi mode M and single
	fiber bidirectional SS13,SS15 SFPs),8*10/100Base-T
	electrical M12 Ports, and dual 220V AC(85-264V) power
	supplies