KYLAND

SICOM3416GBA
12G+4*10G port layer 2 managed explosionproof DIN-Rail switches

Overview

SICOM3416GBA is a layer 2 managed industrial Ethernet switch designed to operate reliably in electrically harsh and climatically demanding industrial environments, which complies with the intrinsic safety certificate and explosion protection standards IEC 60079. SICOM3416G supports up to four 10 gigabit ports, twelve gigabit ports. SICOM3416G is a DIN rail device. SICOM3416G supports many Layer 2 software features such as port, VLAN, multicast, QoS, fast redundant ring. It supports Console, Telnet, Web management and network management software based on SNMP. At present, the product is widely used at the backbone networks in many industrial communication systems.

Key Features

Supports Max four 10 gigabit ports, complies with 2.5 gigabit ports, twelve gigabit ports

Supports DT-Ring, DRP/DHP, STP/RSTP/MSTP and VRRP for network redundancy

Supports Qos,VLAN, SNMP v1/v2/v3, RMON(1,2,3,9 Group)

Supports SFP Digital Diagnostics Monitoring

Supports PTPv2

CE, FCC

Product Specifications

>Software functions
-Switching function

Supports VLAN，PVLAN

Supports GVRP

Supports port aggregation

Supports flow control

Supports ingress port rate limit

Supports broadcast storm suppression

-Redundancy protocol

Supports DRP/DHP with recovery time<20 ms

Supports DT-Ring, DT-Ring+, and DT-VLAN and the recovery time<50 ms

Supports STP/RSTP/MSTP

-Multicast protocol

Supports GMRP

Supports IGMP snooping

-Security

Supports IEEE 802.1x

Supports HTTPS/SSL

Supports SSH

Supports RADIUS

Supports TACACS+

Supports user grading

Supports port isolate

Supports MAC address filter

Supports IP source guard

-Service quality management

Supports ACL

Supports traffic control and limit based on port or protocol

Supports 802.1p and TOS/DiffServ

Supports priortiy remark

Supports traffic shaping

Supports SP and WRR queuing

-Management and maintenance

Supports Console, Telnet, and Web management methods

Supports SNMPv1/v2c/v3 and can managed by Kyvision

Supports config file upload/download and software update over FTP/TFTP/HTTP

Supports the IP/MAC address conflict alarm, power failure alarm, CPU and memory alarm, port link down alarm, port traffic alarm, CRC and packet lose alarm, Sfp port rx power alarm, transceiver alarm and ring alarm

Supports RMON

Supports local and remote port mirroring

Supports Syslog

Supports LLDP

Supports DDM

-IP address management

Supports DHCP Server/Relay/Snooping/Client/Option 61/Option 82

-Clock management

Supports SNTP Client

Supports NTP Client

Supports PTPv2, synchronization precision ±100 ns

Supports time zone and DST

>Technical specifications
-Standards

IEEE 802.3i(10Base-T)

IEEE 802.3u(100Base-TX and 100Base-FX)

IEEE 802.3ab(1000Base-T)

IEEE 802.3z(1000Base-SX/LX)

IEEE 802.3ae(10GBase-X)

IEEE 802.3ad (port aggregation)

IEEE 802.3x (flow control)

IEEE 802.1p (priority)

IEEE 802.1Q(VLAN)

IEEE 802.1w(RSTP)

IEEE 802.1s(MSTP)

IEEE 802.1x

IEEE 1588

-Switch properties

Priority queue: 8

Number of VLANs: 4K

VLAN ID: 1–4093

Number of multicast groups: 1K

MAC table: 32K

Packet buffer: 32Mbit

Packet forwarding rate: 155 Mpps

-Interface

10 Gigabit ports: 10GBase-X, SFP+ port

Gigabit ports: 1000Base-X, SFP port; 10/100/1000Base-T(X), RJ45 port

Console port: RS232,RJ45

Alarm: 3-pin 5.08mm-spacing plug-in terminal block, 250 VAC/220 VDC Max, 2A Max, 10A@1s, 60W Max

-LED

Alarm LED: Alarm

Running LED: Run

Power LED: PWR1, PWR2

Ring Role LED: Ring

Port LED: Link/ACT

-Power Requirements

Power input: 12VDC(9-18VDC)

Power Terminal: 5-pin 5.08 mm-spacing plug-in terminal block

Power consumption: < 35 W

Overload protection: Support

Reverse connection protection: Support

Redundancy protection: Support

-Physical Characteristics

Housing: Metal

Cooling: Natural cooling, fanless

Protection Class: IP40

Dimensions(W×H×D): 120mm×154mm×154mm

Weight: < 3 Kg

Mounting: DIN-Rail

-Environmental limits

Operating temperature: -40°C to +75°C

Storage temperature: -40°C to +85°C

Ambient Relative Humidity: 5% to 95% (non-condensing)

-Quality assurance

MTBF: >300000h

Warranty: 5 years

-Approvals

CE, FCC

EMC: EN 55032, EN 55035, EN 61000-6-4, EN 61000-6-2

Rail Traffic: EN 50121

IEC61850-3, IEEE1613

-Industry standard

EMI

FCC CFR47 Part 15,EN55032/CISPR22,Class A

EMS

IEC61000-4-2(ESD) ±6kV(contact),±8kV(air)

IEC61000-4-3(RS) 80MHz-1000MHz: 10V/m and 20V/m, 1.4GHz-2.1GHz: 10V/m, 2.1GHz-2.5GHz: 5V/m

IEC61000-4-4(EFT) Power Port:±2kV;Data Port:±2kV

IEC61000-4-5(Surge) Power Line to line 1KV; Line to earth 2KV

IEC61000-4-6(CS) 10V(150kHz-80MHz)

Machinery
IEC60068-2-6 (vibration), IEC60068-2-27 (shock), IEC60068-2-32 (free fall)
IEC60079 Explosive atmospheres:
IEC60079-0:2017 Explosive atmospheres. Part 0: General requirements for equipment.
IEC60079-1:2014 Explosive atmospheres. Part 1: Equipment, with explosion-proof enclosure, protection type "d".
IEC60079-7:2015 Explosive atmospheres. Part 7: Equipment with increased safety, protection type "e".
IEC60079-11:2011 Explosive atmospheres. Part 11: Intrinsically safe equipment, protection type "i".

##》》 Mechanical Drawing
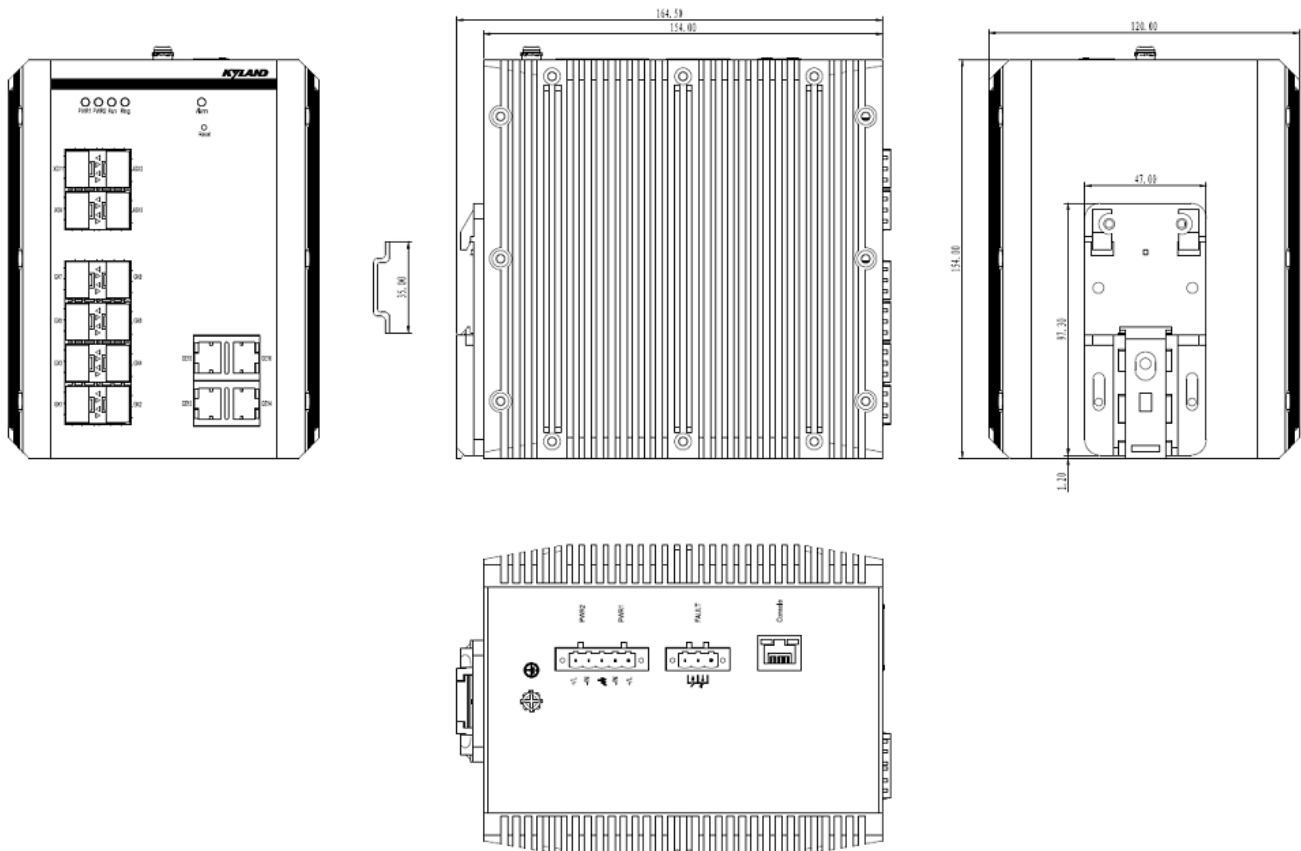
▶▶ Ordering Information

Ordering Information

Product Model	Description
SICOM3416GBA-4 X4 GX8GE-L6-L6	4×10GBase-X SFP+ ports, 4×1000Base-X SFP ports, 8×10/100/1000Base-T(X) ports, 12VDC (9-18VDC), redundant power inputs
SICOM3416GBA-4 X8 GX4GE-L6-L6	4×10GBase-X SFP+ ports, 8×1000Base-X SFP ports,4×10/100/1000Base-T(X) ports, 12VDC (9-18VDC), redundant power inputs

Accessories

Accessory Model	Description
Gigabit SFP module	See the selection table of industrial gigabit SFP module.
10 Gigabit SFP+ module	See the selection table of industrial 10 gigabit SFP+ module.
DT-FCZ-RJ45-01	Single-port RJ45 dust plug

The switch utilizes a special protective conformal coating on the printed circuit board for use in mining and other hazardous industries. The coating is used to protect the board and associated equipment from the environment. The coating has good heat and low temperature resistance. After curing, a transparent protective film is formed which has excellent insulating, intrinsically safe, moisture proof, airtight, shock proof, dust proof, corrosion resistant and other protective properties.

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