

SICOM6416G

12G+4*10G port layer 3 managed DIN-Rail switches



» Overview

SICOM6416G is a layer 3 managed industrial Ethernet switch designed to operate reliably in electrically harsh and climatically demanding industrial environments. SICOM6416G supports up to four 10 gigabit ports, twelve gigabit ports. SICOM6416G is a DIN rail device. SICOM6416G supports many Layer 2 software features such as port, VLAN, multicast, QoS, fast redundant ring and Layer 3 functions such as RIP, OSPF, PIM-SM, PIM-DM. 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 DRP/DHP, STP/RSTP/MSTP, ERPS(G.8032) and VRRP for network redundancy
- Supports Layer 3 Static routing and routing protocols such as RIP v1/v2 and OSPF
- Supports Qos, VLAN, SNMP v1/v2/v3, RMON(1,2,3,9 Group)
- Supports SFP Digital Diagnostics Monitoring

- Supports NAT
- Supports PTPv2
- Supports Automatic Configuration Backup and Restoration
- IP40 protection class
- CE (Pending), FCC (Pending)

Product Specifications

>Software functions

-Switching function

Supports VLAN , PVLAN

Supports port aggregation

Supports flow control

Supports broadcast storm suppression

Supports port rate limit

-Redundancy protocol

Supports VRRP

Supports ERPS(G.8032)

Supports DRP/DHP with recovery time<20 ms

Supports RSTP/MSTP and compatible with STP

-Multicast protocol

Supports GMRP

Supports IGMP snooping

Supports PIM SM and PIM DM

-Routing protocol

Supports RIPv1/v2

Supports OSPFv2

Supports static routing

Supports IGMP

-Security

Supports IEEE 802.1x

Supports HTTPS/SSL,SFTP Client

Supports SSH

Supports RADIUS

Supports TACACS+

Supports user classification

-Service quality management

Supports ACL

Supports 802.1p and TOS/DiffServ, SP and WRR queuing

-Management and maintenance

Supports Console, Telnet, and Web management methods

Supports SNMPv1/v2c/v3 and can managed by Kyvision

Supports file transfer and software update over FTP and TFTP

Supports RMON

Supports the IP/MAC address conflict alarm, power failure alarm, port alarm, and ring alarm

Supports port mirroring

Supports Syslog

Supports LLDP

Supports DDM

-IP address management

Supports DHCP Server/Client/Server option 82

Supports NAT

-Clock management

Supports SNTP Client

Supports NTP Client

Supports PTPv2, synchronization precision ± 100 ns

>Technical specifications

-Standard

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

Routing table: 4K

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

Port LED: Link/ACT

-Power Requirements

Power input: 220VAC/DC(85-264VAC/77-300VDC), 24VDC(18-36VDC), 48VDC(36-72VDC)

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 (Pending), FCC (Pending)

-Industry standard

EMI

FCC CFR47 Part 15,EN55022/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

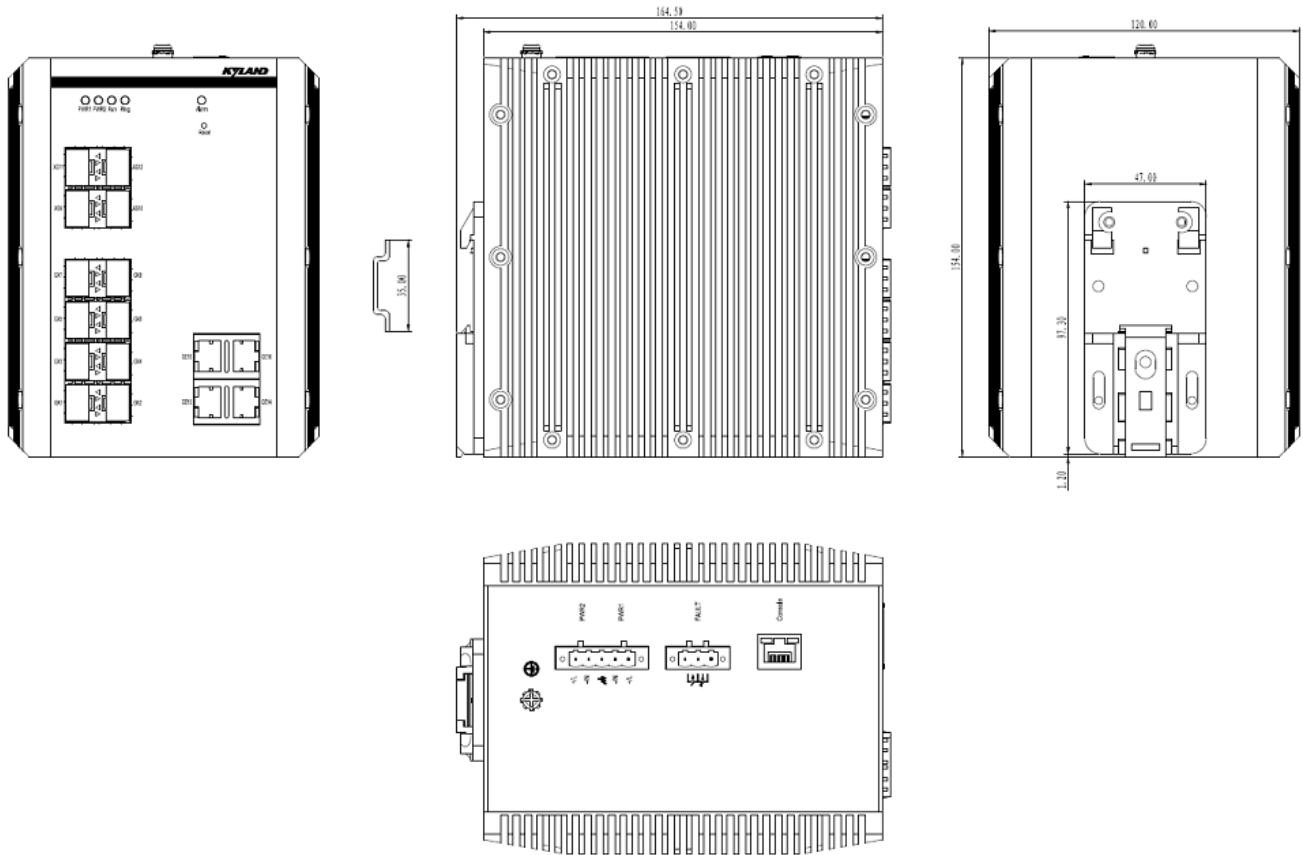
IEC61000-4-5(Surge) Power Line to line 1KV; Line to earth 2KV

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

Machinery

IEC60068-2-6 (vibration), IEC60068-2-27 (shock), IEC60068-2-32 (free fall)

» Mechanical Drawing



» Ordering Information

Ordering Information

Product Model	SICOM6416G-Ports-PS1-PS2
Code definition	Code selection
Ports	4X8GX4GE: 4×10GBase-X SFP+ ports, 8×1000Base-X SFP ports, 4×10/100/1000Base-T(X) ports 4X4GX8GE: 4×10GBase-X SFP+ ports, 4×1000Base-X SFP ports, 8×10/100/1000Base-T(X) ports
PS1-PS2	HV=220VAC/DC (85-264VAC/77-300VDC), single power input L1-L1=48VDC (36-72VDC), redundant power inputs L3-L3=24VDC (18-36VDC), 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
KyACB-USB-RJ45	Automatic Configuration Backup and Restore

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