

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, OSFP, 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 DT-Ring, DRP/DHP, STP/RSTP/MSTP and VRRP for network redundancy Supports Layer 3 Static routing and routing protocols such as RIP v1/v2 and OSPF Supports SFP Digital Diagnostics Monitoring Supports NAT Supports PTPv2 CE, FCC



>>> Product Specifications

Software functionsSwitching 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 Supports VRRP

-Multicast protocol

Supports GMRP Supports IGMP snooping

-Routing protocol

Supports static routing

Supports RIPv1/v2

Supports OSFPv2

Supports IGMP

Supports PIM SM and PIM DM

-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 Supports NAT

-Clock management

Supports SNTP Client Supports NTP Client Supports PTPv2, synchronization precision ±100 ns Supports time zone and DST

>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

-Interface

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

Packet forwarding rate: 155 Mpps

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: 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, 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

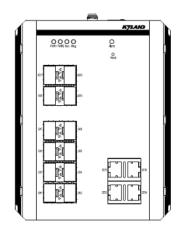
IEC61000-4-5(Surge) Power Line to line 1KV; Line to earth 2KV

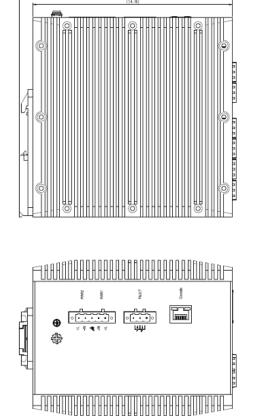
IEC61000-4-6(CS) 10V(150kHz-80MHz)

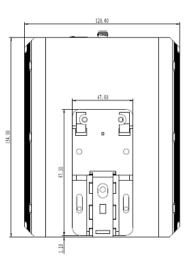
Machinery

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

Mechanical Drawing







Ordering Information



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Product Model	Description
	4×10GBase-X SFP+ ports, 4×1000Base-X SFP ports, 8×10/100/1000Base- T(X) ports, 48VDC (36-72VDC), redundant power inputs
	4×10GBase-X SFP+ ports, 4×1000Base-X SFP ports, 8×10/100/1000Base- T(X) ports, 24VDC (18-36VDC), redundant power inputs
	4×10GBase-X SFP+ ports, 4×1000Base-X SFP ports, 8×10/100/1000Base- T(X) ports, 220VAC/DC (85-264VAC/77-300VDC), single power input
	4×10GBase-X SFP+ ports, 8×1000Base-X SFP ports, 4×10/100/1000Base- T(X) ports, 48VDC (36-72VDC), redundant power inputs
	4×10GBase-X SFP+ ports, 8×1000Base-X SFP ports, 4×10/100/1000Base- T(X) ports, 24VDC (18-36VDC), redundant power inputs
	4×10GBase-X SFP+ ports, 8×1000Base-X SFP ports, 4×10/100/1000Base- T(X) ports, 220VAC/DC (85-264VAC/77-300VDC), single power input

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

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