

SICOM6448SM

48+4G Port Layer 3 Managed Industrial Ethernet Switch



CE, FCC, RoHS, Chinese State Grid Certification

Overview

SICOM6448SM are layer 3 managed industrial Ethernet switches with 48 10/100Base-T(X) ports and 4 combo Gigabit SFP slots or 10/100/1000Base-T(X) ports. Offering hardware wire-speed layer 3 switching, they support static and dynamic routing to optimize the network. They provide high performance and reliable solutions for industrial projects and simply are your best choice.

Features

1. Supports 4 combo Gigabit SFP slots or 10/100/1000Base-T(X) ports and 48 10/100Base-T(X) RJ45 ports
2. Supports DT-Ring protocols (recovery time < 50ms) and STP/RSTP/MSTP/VRP
3. Supports IGMP Snooping, port mirroring, QoS, VLAN
4. Supports static routing protocol and dynamic routing protocols such as RIP v1/v2, OSPF v2 and BGP v4
5. Supports various multicasting routing protocols such as PIM-SM, PIM-DM, DVMRP
6. Powerful ACL, hardware supports data filtering from L2-L7
7. Supports DHCP, BOOTP and other address-attaining ways
8. Broadcast storm auto-detection and control, supports IGMP V1/V2 message detection, effectively preventing broadcast overflow
9. Supports full and half flow control with the speed limitation of the step of 64K
10. Supports QinQ to realize double VLAN security
11. Improves network monitoring ability through RMON (Group 1, 2, 3 and 9)
12. Supports multiple management methods including CLI, TELNET, WEB, SNMP V1/V2/V3 and OPC
13. Complies with EMC industrial level 4 in IEC61850-3
14. Unified management software for SICOM series: Kyvision3.0
15. Various power supply options, dual redundant power supplies
16. Operating temperature: -40 to 85°C (-40 to 185°F)
17. Ribbed aluminum case for heat dissipation (patent), fanless
18. 19 inch 1U Rack-mounting
19. IP40 protection class

Technical Specifications**Standard**

IEEE802.3
IEEE 802.3u
IEEE 802.3x

IEEE802.3z
IEEE802.3ab
IEEE802.3ae
IEEE802.3ad
IEEE802.1p/q
IEEE802.1d
IEEE802.1w
IEEE802.1x
Store and forward switching mode

Interface

SFP Slots: 3 options
1) 4 combo Gigabit SFP slots or 10/100/1000Base-T(X) RJ45 ports
2) 2 100Base SFP slots and 2 1000Base SFP slots
3) 4 100Base SFP slots
10/100M Copper Ports: 48 x 10/100Base-T(X) ports, RJ45
CONSOLE Interface: RS232, RJ45
LED Indicators: SYS, PWR1, PWR2, LINK, ACT (G1-G4, 1-48)

Performance

Backplane switching capacity: 36G
Layer 3 switching and forwarding rate: 23.1Mpps
Routing address table: 30K
MAC address table: 16K

Cable

Twisted Pair: 0-100m (Standard CAT5, CAT5e network cable)
Multi Mode Fiber: 1310nm, 0-5km (100Mbps); 1310nm 0-2km (1000Mbps)
Single Mode Fiber: 1310nm, 0-40km; 1550nm, 0-80km

Power Requirements

Power input: 24VDC (18-36VDC), 48VDC (36-72VDC), 110VAC/110VDC/220VAC/220VDC (85-264VAC/77-300VDC), dual redundant power supplies (optional)
Power terminal: 5-Pin 5.08mm-spacing phoenix terminal block
Power consumption: < 50W

Physical Characteristics

Casing: Ribbed aluminum case (fanless)
Protection class: IP40
Installation: 19 inch 1U rack mounting
Dimensions (WxHxD): 482.6x44x375mm (19x1.73x14.76 in.)
Weight: 4kg (8.818pound)

Environmental Limits

Operating Temperature: -40 to 85°C (-40 to 185°F)
Storage Temperature: -40 to 85°C (-40 to 185°F)
Ambient Relative Humidity: 0 to 95% (non-condensing)

Approvals

IEC61000-4-2 (ESD): ±8KV contact discharge, ±15KV air discharge
IEC61000-4-3 (RS): 10V/M (80-1000MHz)
IEC61000-4-4 (EFT): power line ±4KV, data line ±2KV
IEC61000-4-5 (Surge): power line ±4KV CM/±2KV DM, data line ±2KV
IEC61000-4-6 (CS): 3V (10KHZ-150KHZ), 10V (150KHZ-80MHZ)
IEC61000-4-8 (Power frequency magnetic field): 100A/m cont. 1000A/m, 1s to 3s
IEC61000-4-12/18 (Damped oscillatory wave): 2.5KV CM, 1KV DM
IEC61000-4-10 (Damped oscillatory): 30A/m
IEC61000-4-16 (Common mode conduct): 30V cont. 300V, 1s
FCC CFR47 Part 15/EN55022: Class A&B

IEC61000-6-2 (Industrial Standards), IEC61850-3 (Substations), IEEE1613 (Electric Power Substations), EN50121-4 (Railway Applications)

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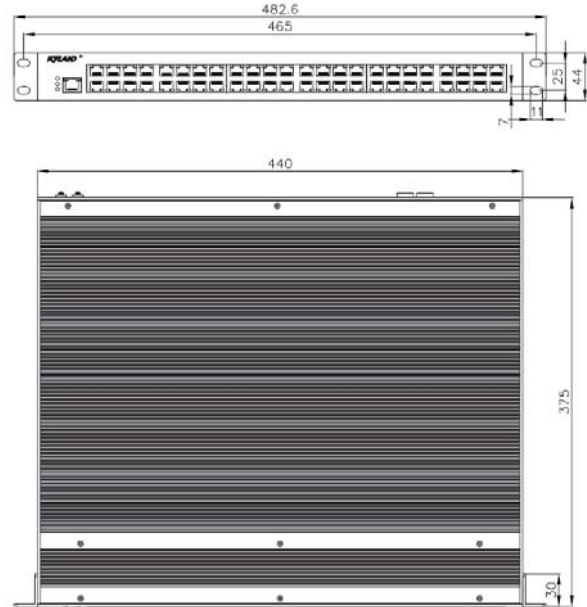
MTBF

35 years

Warranty

5 years

Mechanical Drawing



Ordering Information

Model	Description
SICOM6448SM-48T	IEC61850-3 Layer 3 modular managed rack mounted Ethernet switch with 48 × 10/100Base-T(X) ports, RJ45 connector, single power supply, -40 to 85°C operating temperature
SICOM6448SM-4GX/GE-48T	IEC61850-3 Layer 3 modular managed rack mounted Ethernet switch with 4 combo 10/100/1000Base-T(X) RJ45 ports or 100/1000Base SFP slots, 48 × 10/100Base-T(X) ports, RJ45 connector, single power supply, -40 to 85°C operating temperature
SICOM6448SM-4FX-48T	IEC61850-3 Layer 3 modular managed rack mounted Ethernet switch with 4 × 100Base SFP slots, 48 × 10/100Base-T(X) ports, RJ45 connector, single power supply, -40 to 85°C operating temperature
SICOM6448SM-2GX-2FX-48T	IEC61850-3 Layer 3 modular managed rack mounted Ethernet switch with 2 × Gigabit SFP slots, 2 × 100Base SFP slots, 48 × 10/100Base-T(X) ports, RJ45 connector, single power supply, -40 to 85°C operating temperature

Power Supply: 24VDC, 48VDC, 110VAC/110VDC/220VAC/220VDC, dual redundant power supplies (optional)

SFP Modules

- SM-FSFP-FX/LC-2: SFP module with 1 x 100M multimode port, LC, 1310nm, 2km
- SM-FSFP-FX/LC-40: SFP module with 1 x 100M single mode port, LC, 1310nm, 40km
- SM-GSFP-TX/RJ45: SFP module with 1 x 10/100/1000M port, RJ45, 100m
- SM-GSFP-SX/LC-550: SFP module with 1 x 1000M multimode port, LC, 850nm, 550m
- SM-GSFP-LX/LC-550: SFP module with 1 x 1000M multimode port, LC, 1310nm, 550m
- SM-GSFP-LX/LC-10: SFP module with 1 x 1000M single mode port, LC, 1310nm, 10km
- SM-GSFP-LX/LC-15: SFP module with 1 x 1000M single mode port, LC, 1310nm, 15km
- SM-GSFP-LH/LC-40: SFP module with 1 x 1000M single mode port, LC, 1310nm, 40km
- SM-GSFP-ZX/LC-40: SFP module with 1 x 1000M single mode port, LC, 1550nm, 40km
- SM-GSFP-ZX/LC-60: SFP module with 1 x 1000M single mode port, LC, 1550nm, 60km
- SM-GSFP-ZX/LC-80: SFP module with 1 x 1000M single mode port, LC, 1550nm, 80km

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