

SICOM6448SM

Layer 3 48+4G Port Managed Rack Mountable IEC61850 Backbone Switch



- 4 Gigabit combo ports and 48 10/100Base-TX ports
- Supports RIP, OSPF, BGP layer 3 routing protocols
- Supports DT-Ring protocols, MSTP and VRRP
- Allows front and rear panel mounting installation
- Patented heat dissipation technology
- Exceeds IEC61850 and IEEE1613
- CE, FCC certificates



Overview

SICOM6448SM Series 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 & Benefits

- Redundancy Technology: supports DT-Ring protocols (recovery time<50ms), MSTP and VRRP
- Multicast Protocol: supports IGMP, IGMP Snooping, PIM-SM, PIM-DM, DVMRP
- Routing Protocol: supports RIPv1/v2, OSPFv2, BGPv4 and static routing protocol
- Network Partition: supports VLAN, GVRP
- Service Quality: supports QoS
- Bandwidth Management: supports port trunking, port speed limit, broadcast storm control
- Network Management and Monitoring: supports CLI, Telnet, WEB management methods, Kyvision centralized management, SNMPv1/v2, RMON, LLDP, SNMP, DHCP
- Network Security: supports DT-Psec, ACL
- Device Management: supports FTP/TFTP upgrade, also supports Syslog upload and download
- Device Maintenance: supports port mirroring
- Alarm Output: supports port and ring alarms

Technical Specifications

Standard

IEEE 802.3i, IEEE 802.3u, IEEE 802.3ab, IEEE802.3ac, IEEE 802.3ad, IEEE 802.3z, IEEE 802.3x, IEEE 802.1p, IEEE 802.1Q, IEEE 802.1s

Protocols

DT-Ring, DT-Ring+, DT-VLAN, MSTP, VRRP;
IGMP, IGMP Snooping, PIM-SM, PIM-DM, DVMRP; RIPv1/v2, OSPFv2, BGPv4;
VLAN, GVRP;
Telnet, HTTP, SNMPv1/v2, RMON, LLDP, BootP, SNMP, DHCP
server/relay/client;
DT-Psec, ACL;
FTP, TFTP, Syslog;
ARP, QoS, LACP

Switch Properties

Priority Queues: 8
Number of VLANs: 4K
VLAN ID: 1-4094
Number of Multicast Groups: 256
Routing Table: 30K
MAC Table: 16K
Packet Buffer: 512Mbit
Packet Forwarding Rate: 13.1Mpps
Switching Delay: <5μs

Interface

Gigabit Ethernet Ports: 4 combo 1000Base SFP slots or 10/100/1000Base-TX ports
Fast Ethernet Ports: 48 10/100Base-TX RJ45 ports
Console Port: RS232 (RJ45 connector)

LED

LEDs on Front Panel:
System LED: SYS
Power LED: PWR1, PWR2
Interface LED: Link, ACT

Transmission Distance

Twisted Pair:
100m (Standard CAT5, CAT5e network cable)
Multi Mode Fiber:
850nm, 550m (1000M)
Single Mode Fiber:
1310nm, 10km/40km (1000M)
1550nm, 60km/80km (1000M)

Power Requirements

Power Input:
24DC (18-36VDC), 48DC (36-72VDC), 110DC (77-150VDC), 220AC/DC (85-265VAC/120-375VDC)
Power Terminal:
5-pin 5.08mm-spacing plug-in terminal block
Power Consumption: <39.5W

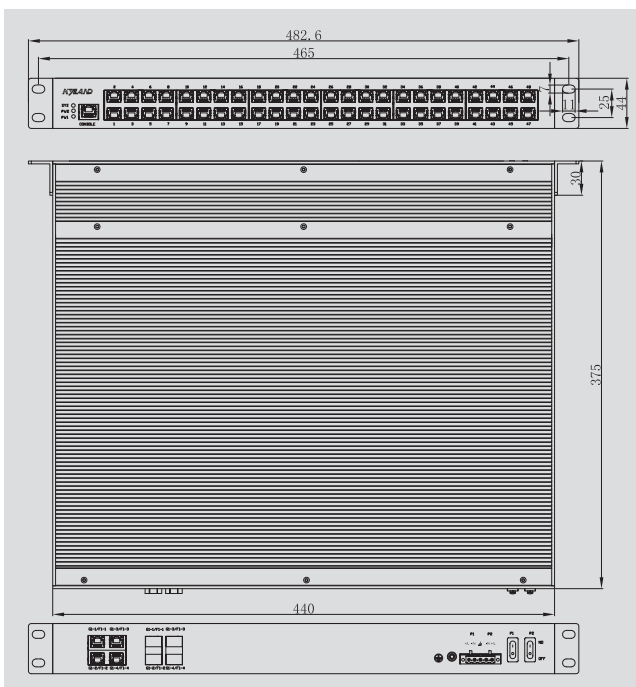
Overload Protection: Support
Reverse Connection Protection: Support
Redundancy Protection: Support

Physical Characteristics

Housing: Aluminum, fanless
Protection Class: IP40
Dimensions (WxHxD):
482.6x44x375 mm (19x1.73x14.76 in.)
Weight: 4kg (8.818 pound)
Mounting: 19 inch 1U Rack mounting

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: 5 to 95% (non-condensing)

Mechanical Drawing**MTBF**

264,000 hrs

Warranty

5 years

Approvals

CE, FCC

Industrial Standard

EMI: FCC CFR47 Part 15, EN55022/CISPR22, Class A

EMS:

IEC61000-4-2 (ESD): $\pm 8\text{kV}$ (contact), $\pm 15\text{kV}$ (air)
IEC61000-4-3 (RS): 10V/m (80MHz-2GHz)
IEC61000-4-4 (EFT): Power Port: $\pm 4\text{kV}$; Data Port: $\pm 2\text{kV}$
IEC61000-4-5 (Surge): Power Port: $\pm 2\text{kV/DM}$, $\pm 4\text{kV/CM}$; Data Port: $\pm 2\text{kV}$
IEC61000-4-6 (CS): 3V (10kHz-150kHz); 10V (150kHz-80MHz)
IEC61000-4-8 (Power frequency magnetic field): 100A/m (cont.), 1000A/m (1s-3s)
IEC61000-4-9 (Pulsed magnetic field): 1000A/m
IEC61000-4-10 (Damped oscillation): 100A/m
IEC61000-4-12 (Oscillatory wave): 2.5kV/CM, 1kV/DM
IEC61000-4-16 (Common mode conduction): 30V (cont.), 300V(1s)

Machinery:

IEC60068-2-6 (Vibration)
IEC60068-2-27 (Shock)
IEC60068-2-32 (Free Fall)

Industry: IEC61000-6-2

Power: IEC61850-3, IEEE1613
Railway: EN50155, EN50121-4
Traffic Control: NEMA TS-2

Ordering Information

SICOM6448SM- _____ - _____ - _____
Ports PS1 PS2

Ports: Interfaces

48T = 48 x 10/100Base-TX RJ45 ports
4GX/GE-48T = 4 Gigabit RJ-45/SFP combo ports(10/100/1000 Base-TX,1000Base-X) and 48 x 10/100/1000Base-TX RJ45 ports

PS1 and PS2: Power supply 1 and 2

24DC = 18-36VDC
48DC = 36-72VDC
110DC = 77-150VDC
220AC/DC = 85-265VAC/120-375VDC
XX = No power supply (PS2 only)

Example Order Codes

SICOM6448SM-4GX/GE-48T-24DC-24DC
4 10/100/1000Base TX RJ45 or 1000Base Gigabit SFP Combo ports, 48 10/100Base TX RJ45 ports, and dual redundant 18-36VDC power supplies