

SICOM649648G/96FE Port Modular Layer 3
Managed Core Industrial Ethernet Switch

CE, FCC, RoHS

Overview

SICOM6496 is a modular layer 3 managed industrial Ethernet switch with 48 10/100/1000Base-T(X) ports or 48 Gigabit SFP slots, or up to 96 10/100/1000Base-T(X) ports, specially designed for core backbone network. It supports layer 3 data full wire-speed forwarding and full duplex or half duplex flow control. And SICOM6496 also supports DT-Ring protocols and the recovery time is less than 50ms.

Features

1. Modularized switch, supports 48 Gigabit SFP slots or 48 10/100/1000Base-T(X) RJ45 ports
2. Supports DT-Ring protocols (recovery time < 50ms), STP/RSTP/MSTP, VRRP
3. Supports IGMP Snooping, port mirroring, QoS, VLAN
4. Supports static routing protocol and dynamic routing protocols such as RIP v1/v2, OSPF v2, BEIGRP, BGP v4
5. Supports various multicast routing protocols such as PIM-SM, PIM-DM, DVMRP
6. Hardware and Layer 3 data message forwarding with full wire-speed
7. Powerful ACL, hardware supports data filtering from L2-L7
8. Supports DHCP, BOOTP and other address-attaining ways
9. Broadcast storm auto-detection and control, supports IGMP V1/V2 message detection, effectively preventing broadcasting overflow
10. Supports full and half duplex flow control with the speed limitation of the step of 64K
11. Supports QinQ to realize double VLAN security
12. Highly reliable network with DAP (defense system against DOS attacks) function
13. Improves network monitoring ability through RMON (Group 1, 2, 3 and 9)
14. Multiple management methods such as CLI, TELNET, WEB, SNMP V1/V2/V3, OPC
15. Unified management software for SICOM series: Kyvision3.0
16. Complies with EMC industrial level 4 regulated in IEC61850-3
17. Operating temperature: -40 to 65°C (-40 to 149°F)
18. Ribbed aluminum case for heat dissipation (patent), dual fans
19. 8U rack mounting
20. IP30 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

Gigabit Ethernet Ports:
Supports 2 Gigabit pluggable master control boards, each control board supports:
1) 20 x 10/100/1000Base-T(X) RJ45 ports and 4 combo Gigabit SFP slots or 10/100/1000Base-T(X) ports
2) 20 x Gigabit SFP slots and 4 combo Gigabit SFP slots or 10/100/1000Base-T(X) ports
3) 12 x 10/100/1000Base-T(X) RJ45 ports and 12 x Gigabit SFP slots
(SFP slots support 1000Base-SX/LX/LH/ZX, LC interface modules)
Fast Ethernet Ports: Master control board supports max 48 x 10/100/Base-T(X) ports, RJ45
CONSOLE Interface: RS232, RJ45
LED Indicators: RUN, PWR1, PWR2; LINK/ACT (GE1-GE24); LINK, ACT (GX1-GX24)

Performance

Backplane switching capacity: 256G
Layer 3 switching and forwarding rate: 130Mpps
Routing address table size: 512K
MAC address table size: 512K

Cable

Twisted Pair: 0-100m
Multi Mode Fiber: 1310nm, 0-2km
Single Mode Fiber: 1310nm, 0-40km; 1550nm, 0-80km

Power Requirements

Power input: 48VDC (36~75VDC), 110VAC/220VAC/220VDC (85~264VAC/200~400VDC), dual redundant power supplies (optional)
Power terminal: 3-Pin 7.62mm-spacing plug-in terminal block
Power consumption: <200W

Physical Characteristics

Casing: Ribbed aluminum case, dual fans
Protection class: IP30
Installation: Rack mounting
Dimensions (WxHxD): 482x356x456mm (including handles) (18.98x14.02x17.95 in.)
Weight: 20kg (44.092 pound)

Environmental Limits

Operating Temperature: -40 to 65°C (-40 to 149°F)
Storage Temperature: -40 to 85°C (-40 to 185°F)
Ambient Relative Humidity: 0 to 95% (non-condensing)

Approvals

- IEC61000-4-2 (ESD): $\pm 8\text{KV}$ contact discharge, $\pm 15\text{KV}$ air discharge
- IEC61000-4-3 (RS): 10V/M (80-1000MHz)
- IEC61000-4-4 (EFT): power line $\pm 4\text{KV}$, data line $\pm 2\text{KV}$
- IEC61000-4-5 (Surge): power line $\pm 4\text{KV CM}/\pm 2\text{KV DM}$, data line $\pm 2\text{KV}$
- IEC61000-4-6 (CS): 3V (10KHZ-150KHZ), 10V (150KHz-80MHz)
- IEC61000-4-8 (Power frequency magnetic field): 100A/m cont. 1000A/m , 1s 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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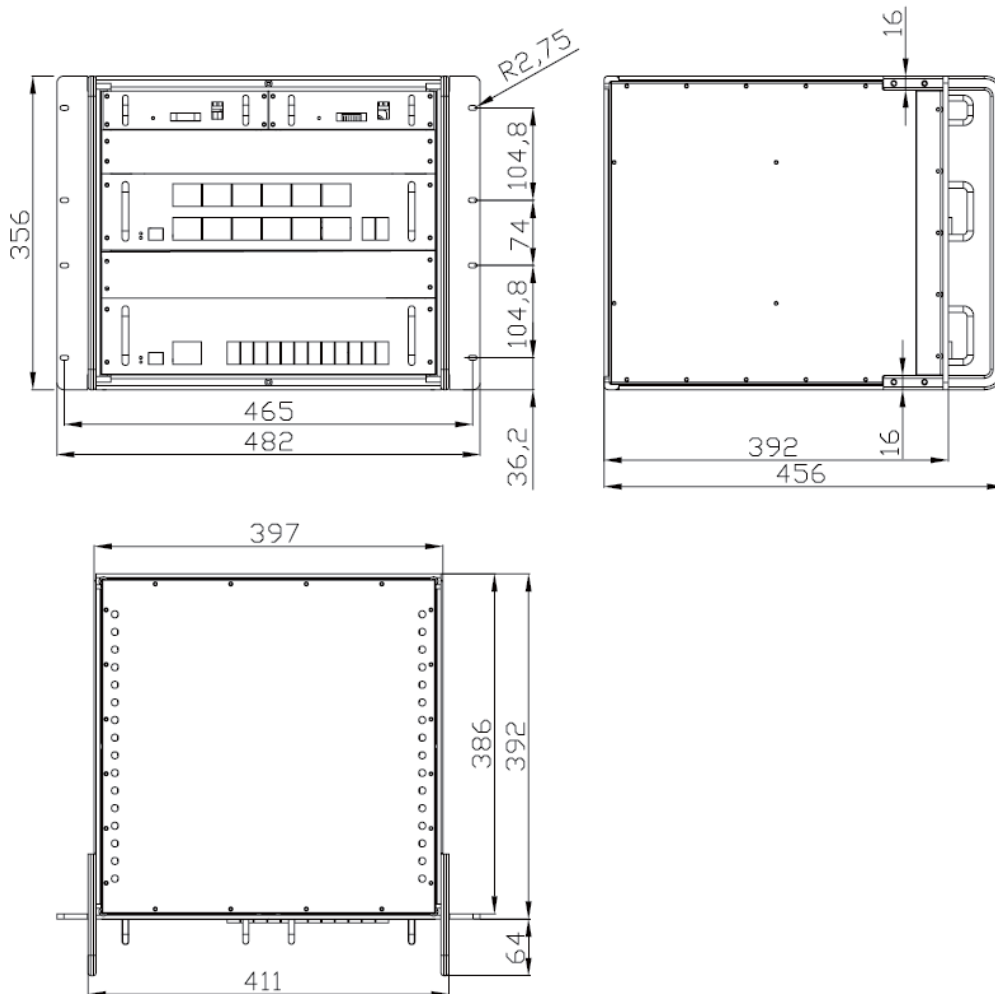
MTBF

35 years

Warranty

5 years

Mechanical Drawing



Ordering Information

SICOM6496	Descriptions
SM6496-CHASSIS	Up to 48 Gigabit Ethernet ports, Chassis of SICOM6496, offering system backboard, supports 4 expansion slots: 2 for master switching boards, 2 for power supply modules, -40 to 65°C operating temperature
SM6.3-POWER-220VAC	Power supply module of 110VAC/220VAC/220VDC (85-264VAC/200-400VDC)
SM6.3-POWER-48VDC	Power supply module of 48VDC (36-75VDC)
SM6.3-20GE-4GE/GX	Interface module with 20 x 10/100/1000Base-T(X) RJ45 ports, 4 Gigabit RJ45/SFP combo ports (10/100/1000Base-TX, 1000Base-X)
SM6.3-20GX-4GE/GX	Interface module with 20 Gigabit SFP slots, 4 Gigabit RJ45/SFP combo ports (10/100/1000Base-TX, 1000Base-X)
SM6.3-12GX-12GE	Interface module with 12 Gigabit SFP slots and 12 x 10/100/1000Base-T(X) RJ45 ports
SM6.3-4GX-48T	Interface module with 4 Gigabit SFP slots and 48 x 10/100Base-T(X) RJ45 ports
SFP Modules	
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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