KYLAND

Industrializing the Ethernet
Simplifying Industrial Communication

SICOM6424SM
24+4G Port Layer 3 Modular Managed Industrial Ethernet Switch

Version: 101210

SICOM6424SM

24+4G Port Layer 3 Modular Managed Industrial Ethernet Switch

CE, FCC, RoHS
Chinese State Grid Certification

Overview

SICOM6424SM is a layer 3 managed modular industrial Ethernet switch with up to 24 100Base-FX or 10/100Base-T(X) ports, and 4 Gigabit SFP slots or 4 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 with modular design.

Features

• Up to 4 Gigabit SFP slots or 10/100/1000Base-T(X) ports, 24 100Base TP/fiber ports
. Supports DT-Ring protocols (recovery time<50ms) and STP/ RSTP/ MSTP/ VRRP
• Supports SNTP network time protocol
• Supports IGMP Snooping, port mirroring, QoS, VLAN and link aggregation
• Supports static routing protocol and dynamic routing protocols such as RIP v1/v2, OSPF v2 and BGP v4
• Supports multicast routing protocols such as PIM-SM, PIM-DM and DVMRP
• Powerful ACL, hardware supports data filtering from L2 to L7
• Supports DHCP, BOOTP and other address-attaining ways
• Broadcast storm auto-detection and control, supports the detection of IGMP V1/V2 message, effectively preventing broadcast overflow
• Supports full and half duplex flow control with the speed limitation of the step of 64K
• Supports QinQ to realize double VLAN security
• Improves network monitoring ability through RMON (Group 1, 2, 3 and 9)
• Supports multiple management methods including CLI, TELNET, WEB, SNMP V1/V2/V3 and OPC
• Complies with EMC industrial level 4 in IEC61850-3
• Unified management software for SICOM series: Kyvision3.0
• Various power supply options, dual redundant power supplies
• Relay alarm output for the failure of power
• Operating temperature：-40 to 85℃ (-40 to 185°F)
• Ribbed aluminum case for heat dissipation (patent), fanless design
• 19 inch 1U Rack-mounting
• 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
Gigabit Ethernet Ports: One slot for Gigabit ports. The slot supports 4 10/100/1000Base-T(X) RJ45 ports or 4 Gigabit SFP slots with 1000Base-SX/LX/LH/ZX, LC interface modules
Fast Ethernet Ports: 3 slots for 100M ports, each supports 8 100Base TP/fiber ports
CONSOLE Interface: RS232, RJ45
Alarm Contact: 3-Pin 3.81mm-spacing terminal block, 250VAC/220VDC Max; 2A Max; 60W Max
LED Indicators: RUN, ALARM, PWR1, PER2; LINK, DPX (G1-G4); LINK/ACT, 10M/100M (1-24)

Performance
Backplane switching capacity: 36G
Layer 3 switching and forwarding rate: 19.6Mpps
Routing address table: 30K
MAC address table: 16K

Network
Ring, chain, star and tangent ring network topology

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), 110VDC (82-185VDC), 110VAC/220VAC/220VDC (85-264VAC/120-370VDC), dual redundant power supplies (optional)
Power terminal: 3-Pin 9.5mm-spacing terminal block
Power consumption: <40W

Physical Characteristics
Casing: Ribbed aluminum case (fanless)
Protection Class: IP40
Installation: Rack-mounting (19 Inch 1U)
Dimensions (WxHxD): 482.6x44x420mm (19x1.73x16.53 in.)
Weight: 5kg (11.02 Pound)

Environmental Limits
Operating Temperature: -40 to 85℃ (-40 to 185°F)
Storage Temperature: -40 to 85℃ (-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): 20V 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)

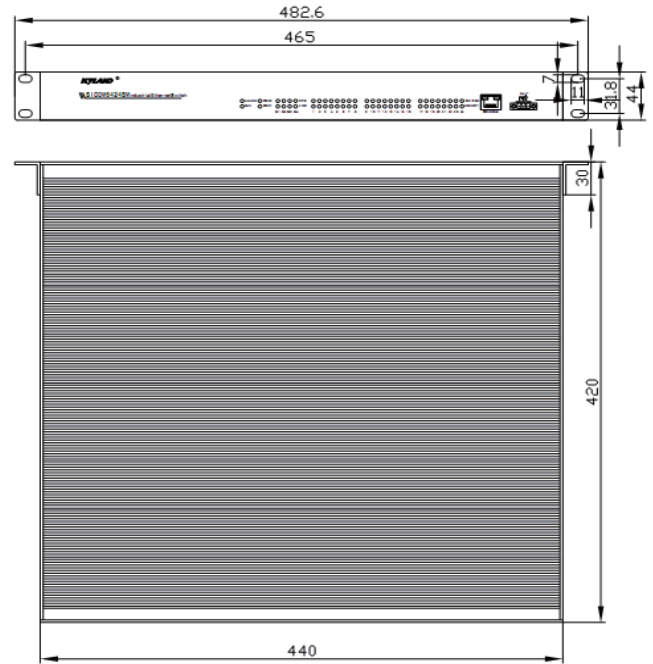CE, FCC, ROHS, Chinese State Grid Certification

MTBF
35 years

Warranty
5 years

Mechanical Drawing

Ordering Information

Model	Description
SICOM6424SM-4GX-4S-20T	Layer 3 modular managed Ethernet switch with 4 Gigabit SFP slots, 4 100Base-FX ports, single mode, FC/SC/ST connector, 20 10/100Base-T(X) ports, RJ45 connector, rack mounting, 24VDC, 48VDC, 110VDC, 110VAC/220VAC/220VDC, single power supply, -40 to 85℃ operating temperature
SICOM6424SM-4GE-4S-20T	Layer 3 modular managed Ethernet switch with 4 10/100/1000Base-T(X) ports, RJ45 connector, 4 100Base-FX ports, single mode, FC/SC/ST connector, 20 10/100Base-T(X) ports, RJ45 connector, rack mounting, 24VDC, 48VDC, 110VDC, 110VAC/220VAC/220VDC, single power supply, -40 to 85℃ operating temperature
SICOM6424SM-4GX-4M-20T	Layer 3 modular managed Ethernet switch with 4 Gigabit SFP slots, 4 100Base-FX ports, multi mode, FC/SC/ST connector, 20 10/100Base-T(X) ports, RJ45 connector, rack mounting, 24VDC, 48VDC, 110VDC, 110VAC/220VAC/220VDC, single power supply, -40 to 85℃ operating temperature
SICOM6424SM-4GE-4M-20T	Layer 3 modular managed Ethernet switch with 4 10/100/1000Base-T(X) ports, RJ45 connector, 4 100Base-FX ports, multi mode, FC/SC/ST connector, 20 10/100Base-T(X) ports, RJ45 connector, rack mounting, 24VDC, 48VDC, 110VDC, 110VAC/220VAC/220VDC, single power supply, -40 to 85℃ operating temperature
SICOM6424SM-4GX-8S-16T	Layer 3 modular managed Ethernet switch with 4 Gigabit SFP slots, 8 100Base-FX ports, single mode, FC/SC/ST connector, 16 10/100Base-T(X) ports, RJ45 connector, rack mounting, 24VDC, 48VDC, 110VDC, 110VAC/220VAC/220VDC, single power supply, -40 to 85℃ operating temperature
SICOM6424SM-4GE-8S-16T	Layer 3 modular managed Ethernet switch with 4 10/100/1000Base-T(X) ports, RJ45 connector, 8 100Base-FX ports, single mode, FC/SC/ST connector, 16 10/100Base-T(X) ports, RJ45 connector, rack mounting, 24VDC, 48VDC, 110VDC, 110VAC/220VAC/220VDC, single power supply, -40 to 85℃ operating temperature
SICOM6424SM-4GX-8M-16T	Layer 3 modular managed Ethernet switch with 4 Gigabit SFP slots, 8 100Base-FX ports, multi mode, FC/SC/ST connector, 16 10/100Base-T(X) ports, RJ45 connector, rack mounting, 24VDC, 48VDC, 110VDC, 110VAC/220VAC/220VDC, single power supply, -40 to 85℃ operating temperature
SICOM6424SM-4GE-8M-16T	Layer 3 modular managed Ethernet switch with 4 10/100/1000Base-T(X) ports, RJ45 connector, 8 100Base-FX ports, multi mode, FC/SC/ST connector, 16 10/100Base-T(X) ports, RJ45 connector, rack mounting, 24VDC, 48VDC, 110VDC, 110VAC/220VAC/220VDC, single power supply, -40 to 85℃ operating temperature
SICOM6424SM-4GX-12S-12T	Layer 3 modular managed Ethernet switch with 4 Gigabit SFP slots, 12 100Base-FX ports, single mode, FC/SC/ST connector, 12 10/100Base-T(X) ports, RJ45 connector, rack mounting, 24VDC, 48VDC, 110VDC, 110VAC/220VAC/220VDC, single power supply, -40 to 85℃ operating temperature

Model	Description
SICOM6424SM-4GE-12S-12T	Layer 3 modular managed Ethernet switch with 4 10/100/1000Base-T(X) ports, RJ45 connector, 12 100Base-FX ports, single mode, FC/SC/ST connector, 12 10/100Base-T(X) ports, RJ45 connector, rack mounting, 24VDC, 48VDC, 110VDC, 110VAC/220VAC/220VDC, single power supply, -40 to 85°C operating temperature
SICOM6424SM-4GX-12M-12T	Layer 3 modular managed Ethernet switch with 4 Gigabit SFP slots, 12 100Base-FX ports, multi mode, FC/SC/ST connector, 12 10/100Base-T(X) ports, RJ45 connector, rack mounting, 24VDC, 48VDC, 110VDC, 110VAC/220VAC/220VDC, single power supply, -40 to 85°C operating temperature
SICOM6424SM-4GE-12M-12T	Layer 3 modular managed Ethernet switch with 4 10/100/1000Base-T(X) ports, RJ45 connector, 12 100Base-FX ports, multi mode, FC/SC/ST connector, 12 10/100Base-T(X) ports, RJ45 connector, rack mounting, 24VDC, 48VDC, 110VDC, 110VAC/220VAC/220VDC, single power supply, -40 to 85°C operating temperature
SICOM6424SM-4GX-16S-8T	Layer 3 modular managed Ethernet switch with 4 Gigabit SFP slots, 16 100Base-FX ports, single mode, FC/SC/ST connector, 8 10/100Base-T(X) ports, RJ45 connector, rack mounting, 24VDC, 48VDC, 110VDC, 110VAC/220VAC/220VDC, single power supply, -40 to 85°C operating temperature
SICOM6424SM-4GE-16S-8T	Layer 3 modular managed Ethernet switch with 4 10/100/1000Base-T(X) ports, RJ45 connector, 16 100Base-FX ports, single mode, FC/SC/ST connector, 8 10/100Base-T(X) ports, RJ45 connector, rack mounting, 24VDC, 48VDC, 110VDC, 110VAC/220VAC/220VDC, single power supply, -40 to 85°C operating temperature
SICOM6424SM-4GX-16M-8T	Layer 3 modular managed Ethernet switch with 4 Gigabit SFP slots, 16 100Base-FX ports, multi mode, FC/SC/ST connector, 8 10/100Base-T(X) ports, RJ45 connector, rack mounting, 24VDC, 48VDC, 110VDC, 110VAC/220VAC/220VDC, single power supply, -40 to 85°C operating temperature
SICOM6424SM-4GE-16M-8T	Layer 3 modular managed Ethernet switch with 4 10/100/1000Base-T(X) ports, RJ45 connector, 16 100Base-FX ports, multi mode, FC/SC/ST connector, 8 10/100Base-T(X) ports, RJ45 connector, rack mounting, 24VDC, 48VDC, 110VDC, 110VAC/220VAC/220VDC, single power supply, -40 to 85°C operating temperature
SICOM6424SM-4GX-20S-4T	Layer 3 modular managed Ethernet switch with 4 Gigabit SFP slots, 20 100Base-FX ports, single mode, FC/SC/ST connector, 4 10/100Base-T(X) ports, RJ45 connector, rack mounting, 24VDC, 48VDC, 110VDC, 110VAC/220VAC/220VDC, single power supply, -40 to 85°C operating temperature
SICOM6424SM-4GE-20S-4T	Layer 3 modular managed Ethernet switch with 4 10/100/1000Base-T(X) ports, RJ45 connector, 20 100Base-FX ports, single mode, FC/SC/ST connector, 4 10/100Base-T(X) ports, RJ45 connector, rack mounting, 24VDC, 48VDC, 110VDC, 110VAC/220VAC/220VDC, single power supply, -40 to 85°C operating temperature
SICOM6424SM-4GX-20M-4T	Layer 3 modular managed Ethernet switch with 4 Gigabit SFP slots, 20 100Base-FX ports, multi mode, FC/SC/ST connector, 4 10/100Base-T(X) ports, RJ45 connector, rack mounting, 24VDC, 48VDC, 110VDC, 110VAC/220VAC/220VDC, single power supply, -40 to 85°C operating temperature
SICOM6424SM-4GE-20M-4T	Layer 3 modular managed Ethernet switch with 4 10/100/1000Base-T(X) ports, RJ45 connector, 20 100Base-FX ports, multi mode, FC/SC/ST connector, 4 10/100Base-T(X) ports, RJ45 connector, rack mounting, 24VDC, 48VDC, 110VDC, 110VAC/220VAC/220VDC, single power supply, -40 to 85°C operating temperature
SICOM6424SM-4GX-24S	Layer 3 modular managed Ethernet switch with 4 Gigabit SFP slots, 24 100Base-FX ports, single mode, FC/SC/ST connector, rack mounting, 24VDC, 48VDC, 110VDC, 110VAC/220VAC/220VDC,single power supply, -40 to 85°C operating temperature
SICOM6424SM-4GE-24S	Layer 3 modular managed Ethernet switch with 4 10/100/1000Base-T(X) ports, RJ45 connector, 24 100Base-FX ports, single mode, FC/SC/ST connector, rack mounting, 24VDC, 48VDC, 110VDC, 110VAC/220VAC/220VDC, single power supply, -40 to 85°C operating temperature
SICOM6424SM-4GX-24M	Layer 3 modular managed Ethernet switch with 4 Gigabit SFP slots, 24 100Base-FX ports, multi mode, FC/SC/ST connector, rack mounting, 24VDC, 48VDC, 110VDC, 110VAC/220VAC/220VDC, single power supply, -40 to 85°C operating temperature
SICOM6424SM-4GE-24M	Layer 3 modular managed Ethernet switch with 4 10/100/1000Base-T(X) ports, RJ45 connector, 16 100Base-FX ports, multi mode, FC/SC/ST connector, rack mounting, 24VDC, 48VDC, 110VDC, 110VAC/220VAC/220VDC, single power supply, -40 to 85°C operating temperature
SICOM6424SM-4GX-24T	Layer 3 modular managed Ethernet switch with 4 Gigabit SFP slots, 24 10/100Base-T(X) ports, RJ45 connector, rack mounting, 24VDC, 48VDC, 110VDC, 110VAC/220VAC/220VDC, single power supply, -40 to 85°C operating temperature

Model	Description
SICOM6424SM-4GE-24T	Layer 3 modular managed Ethernet switch with 4 10/100/1000Base-T(X) ports, RJ45 connector, 24 10/100Base-T(X) ports, RJ45 connector, rack mounting, 24VDC, 48VDC, 110VDC, 110VAC/220VAC/220VDC, single power supply, -40 to 85°C operating temperature
SICOM6424SM-4S-20T	Layer 3 modular managed Ethernet switch with 4 100Base-FX ports, single mode, FC/SC/ST connector, 20 10/100Base-T(X) ports, RJ45 connector, rack mounting, 24VDC, 48VDC, 110VDC, 110VAC/220VAC/220VDC, single power supply, -40 to 85°C operating temperature
SICOM6424SM-4M-20T	Layer 3 modular managed Ethernet switch with 4 100Base-FX ports, multi mode, FC/SC/ST connector, 20 10/100Base-T(X) ports, RJ45 connector, rack mounting, 24VDC, 48VDC, 110VDC, 110VAC/220VAC/220VDC, single power supply, -40 to 85°C operating temperature
SICOM6424SM-8S-16T	Layer 3 modular managed Ethernet switch with 8 100Base-FX ports, single mode, FC/SC/ST connector, 16 10/100Base-T(X) ports, RJ45 connector, rack mounting, 24VDC, 48VDC, 110VDC, 110VAC/220VAC/220VDC, single power supply, -40 to 85°C operating temperature
SICOM6424SM-8M-16T	Layer 3 modular managed Ethernet switch with 8 100Base-FX ports, multi mode, FC/SC/ST connector, 16 10/100Base-T(X) ports, RJ45 connector, rack mounting, 24VDC, 48VDC, 110VDC, 110VAC/220VAC/220VDC, single power supply, -40 to 85°C operating temperature
SICOM6424SM-12S-12T	Layer 3 modular managed Ethernet switch with 12 100Base-FX ports, single mode, FC/SC/ST connector, 12 10/100Base-T(X) ports, RJ45 connector, rack mounting, 24VDC, 48VDC, 110VDC, 110VAC/220VAC/220VDC, single power supply, -40 to 85°C operating temperature
SICOM6424SM-12M-12T	Layer 3 modular managed Ethernet switch with 12 100Base-FX ports, multi mode, FC/SC/ST connector, 12 10/100Base-T(X) ports, RJ45 connector, rack mounting, 24VDC, 48VDC, 110VDC, 110VAC/220VAC/220VDC, single power supply, -40 to 85°C operating temperature
SICOM6424SM-16S-8T	Layer 3 modular managed Ethernet switch with 16 100Base-FX ports, single mode, FC/SC/ST connector, 8 10/100Base-T(X) ports, RJ45 connector, rack mounting, 24VDC, 48VDC, 110VDC, 110VAC/220VAC/220VDC, single power supply, -40 to 85°C operating temperature
SICOM6424SM-16M-8T	Layer 3 modular managed Ethernet switch with 16 100Base-FX ports, multi mode, FC/SC/ST connector, 8 10/100Base-T(X) ports, RJ45 connector, rack mounting, 24VDC, 48VDC, 110VDC, 110VAC/220VAC/220VDC, single power supply, -40 to 85°C operating temperature
SICOM6424SM-20S-4T	Layer 3 modular managed Ethernet switch with 20 100Base-FX ports, single mode, FC/SC/ST connector, 4 10/100Base-T(X) ports, RJ45 connector, rack mounting, 24VDC, 48VDC, 110VDC, 110VAC/220VAC/220VDC, single power supply, -40 to 85°C operating temperature
SICOM6424SM-20M-4T	Layer 3 modular managed Ethernet switch with 20 100Base-FX ports, multi mode, FC/SC/ST connector, 4 10/100Base-T(X) ports, RJ45 connector, rack mounting, 24VDC, 48VDC, 110VDC, 110VAC/220VAC/220VDC, single power supply, -40 to 85°C operating temperature
SICOM6424SM-24S	Layer 3 modular managed Ethernet switch with 24 100Base-FX ports, single mode, FC/SC/ST connector, rack mounting, 24VDC, 48VDC, 110VDC, 110VAC/220VAC/220VDC, single power supply, -40 to 85°C operating temperature
SICOM6424SM-24M	Layer 3 modular managed Ethernet switch with 24 100Base-FX ports, multi mode, FC/SC/ST connector, rack mounting, 24VDC, 48VDC, 110VDC, 110VAC/220VAC/220VDC, single power supply, -40 to 85°C operating temperature
SICOM6424SM-24T	Layer 3 modular managed Ethernet switch with 24 10/100Base-T(X) ports, RJ45 connector, rack mounting, 24VDC, 48VDC, 110VDC, 110VAC/220VAC/220VDC, single power supply, -40 to 85°C operating temperature

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

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