

**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
- 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°C (-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°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): 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)

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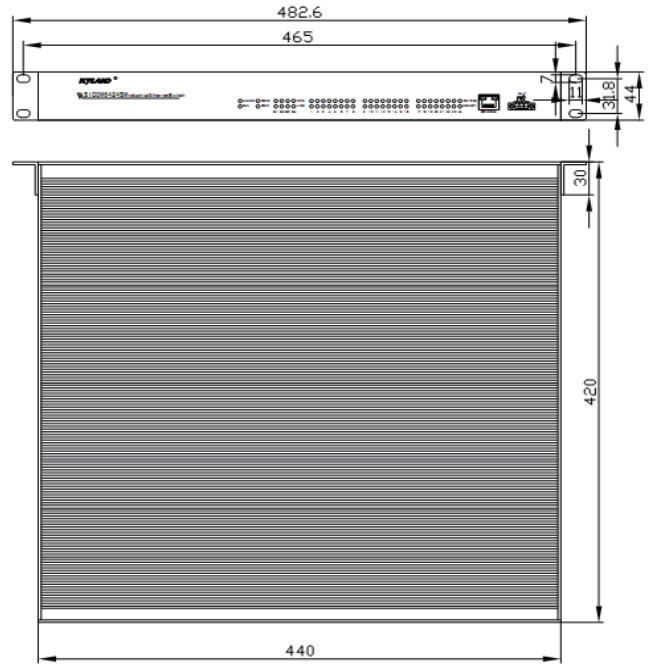
### MTBF

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°C 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°C 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°C 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°C 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°C 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°C operating temperature
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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°C 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

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