

SICOM6424SM

Layer 3 24+4G Port Managed Rack Mountable IEC61850 Backbone Switch



- Internal modular design with flexible port combinations
- 4 Gigabit fiber/RJ45 optional ports, 24 Fast Ethernet fiber/RJ45 optional ports
- RIP, OSPF, BGP layer 3 routing protocols
- DT-Ring protocols, MSTP and VRRP
- Kyvision network management software, network topology auto-generation
- Exceeds IEC61850-3 & IEEE1613
- IP40 protection class



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 & 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, SNTP, 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, power 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, SNTP, 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: 9.5Mpps
Switching Delay: <5µs

Interface

Gigabit Ethernet Ports: 4 1000Base SFP slots or 4 10/100/1000Base-TX RJ45 ports

Fast Ethernet Ports: max 24 100Base-FX, SM/MM ports, FC/SC/ST connector or 24 10/100Base-TX RJ45 ports

Console Port: RS232 (RJ45 connector)

Alarm Contact: 3-pin 3.81mm-spacing plug-in terminal block, 250VAC/220VDC Max, 2A Max, 60W Max

LED

LEDs on Front Panel:

Running LED: Run

Alarm LED: Alarm

Power LED: PWR1, PWR2

Interface LED: Link/ACT (Fast Ethernet port), Speed (Fast Ethernet port), DPX (Gigabit Ethernet port), Link (Gigabit Ethernet port)

Transmission Distance

Twisted Pair:

100m (Standard CAT5, CAT5e network cable)

Multi Mode Fiber:

1310nm, 5km (100M)

850nm, 550m (1000M)

Single Mode Fiber:

1310nm, 40km/60km (100M)

1550nm, 60km/80km (100M)

1310nm, 10km/40km (1000M)

1550nm, 60km/80km (1000M)

Power Requirements

Power Input:

24DC (18-36VDC), 48DC (36-72VDC), 110DC (82-185VDC), 220AC/DC (85-265VAC/120-370VDC)

Power Terminal:

3-pin 9.5mm-spacing plug-in terminal block

Power Consumption: <35W

Overload Protection: Support

Reverse Connection Protection: Support

Redundancy Protection: Support

Physical Characteristics

Housing: Aluminum, fanless

Protection Class: IP40

Dimensions (WxHxD):

482.6x44x420 mm (19x1.73x16.54 in.)

Weight: 5kg (11.023 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)

MTBF

365,000 hrs

Warranty

5 years

Approvals

CE, FCC

Industrial Standard

EMI:

FCC CFR47 Part 15, EN55022/CISPR22, Class A

EMS:

IEC61000-4-2 (ESD): ±8kV (contact), ±15kV (air)

IEC61000-4-3 (RS): 10V/m (80MHz-2GHz)

IEC61000-4-4 (EFT): Power Port: ±4kV; Data Port: ±2kV

IEC61000-4-5 (Surge): Power Port: ±2kV/DM, ±4kV/CM; Data Port: ±2kV

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)

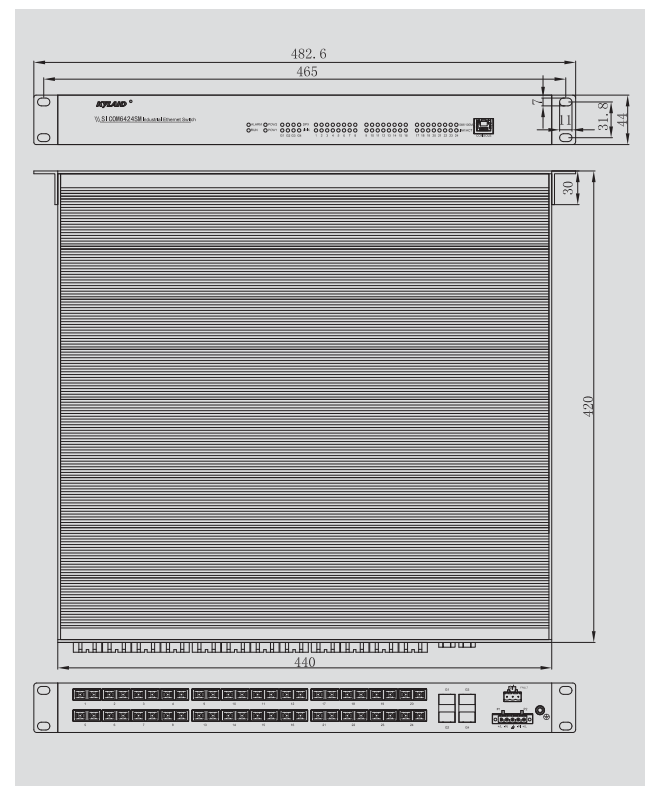
IEC60068-2-32 (Free Fall)

Industry: IEC61000-6-2

Power: IEC61850-3, IEEE1613

Railway: EN50155, EN50121-4

Traffic Control: NEMA TS-2

Mechanical Drawing

Ordering Information

SICOM6424SM- _____ - _____ - _____ - _____ - _____ - _____
 G 100M Distance Connector PS1 PS2

G: Gigabit Ports

4GX = 4 Gigabit SFP ports

4GE = 4 10/100/1000Base-TX RJ45 ports

None = No Gigabit port

100M:100M Ports

24M = 24 100Base-FX multi mode fiber ports

24S = 24 100Base-FX single mode fiber ports

20M-4T = 20 100Base-FX multi mode fiber ports, 4 10/100Base-TX RJ45 ports

20S-4T = 20 100Base-FX single mode fiber ports, 4 10/100Base-TX RJ45 ports

16M-8T = 16 100Base-FX multi mode fiber ports, 8 10/100Base-TX RJ45 ports

16S-8T = 16 100Base-FX single mode fiber ports, 8 10/100Base-TX RJ45 ports

12M-12T = 12 100Base-FX multi mode fiber ports, 12 10/100Base-TX RJ45 ports

12S-12T = 12 100Base-FX single mode fiber ports, 12 10/100Base-TX RJ45 ports

8M-16T = 8 100Base-FX multi mode fiber ports, 16 10/100Base-TX RJ45 ports

8S-16T = 8 100Base-FX single mode fiber ports, 16 10/100Base-TX RJ45 ports

4M-20T = 4 100Base-FX multi mode fiber ports, 20 10/100Base-TX RJ45 ports

4S-20T = 4 100Base-FX single mode fiber ports, 20 10/100Base-TX RJ45 ports

24T = 24 10/100Base-TX RJ45 ports

Distance: Fiber Distance

1310-5 = 1310nm, 5km

1310-40 = 1310nm, 40km

1310-60 = 1310nm, 60km

1550-80 = 1550nm, 80km

Connector: Fiber Connector

SC = SC connectors

ST = ST connectors

FC = FC connectors

PS1 and PS2: Power supply 1 and 2

24DC = 18-36VDC

48DC = 36-72VDC

110DC = 82-185VDC

220AC/DC = 85-265VAC/120-370VDC

XX = No power supply (PS2 only)

Example Order Codes

SICOM6424SM-24M-1310-5-SC-24DC-24DC

24 100Base-FX multi mode fiber ports with SC connectors 1310nm 5km, 20 10/100Base TX RJ45 ports, and dual redundant 24DC(18-36VDC) power supplies.