

# SICOM3024SM

## Layer 2 24+4G Port Managed Rack Mountable Modular IEC61850 PoE Switch



- Flexible 2U modular design for easy expansion
- Supports DT-Ring protocols and RSTP
- Max 24 802.3af POE ports
- Compliant with IEC61850-3 and IEEE1613
- Allows front and rear panel mounting
- Supports power failure alarm



### Overview

SICOM3024SM is a Gigabit modular managed industrial Ethernet switch which supports up to 24 high-power POE feeding ports. It supports DT-Ring and DT-Ring+ with recovery time less than 50ms. Its powerful network management system supports CLI, Telnet, WEB, SNMP, OPC and network topology auto-generation. The reliable short lagging function, the function of zero packet loss in long-time full load running and in Goose message real-time transmission make SICOM3024SM quite suitable for digital substations and other fields.

### Features & Benefits

1. Redundancy Technology: supports DT-Ring protocols (recovery time<50ms) and RSTP
2. Multicast Protocol: supports IGMP Snooping, GMRP and static multicast
3. Network Partition: supports VLAN, PVLAN
4. Service Quality: supports QoS
5. Bandwidth Management: supports port trunking, port speed limit, broadcast storm control
6. Network Management and Monitoring: supports CLI, Telnet, WEB management methods, Kyvision centralized management, SNMPv1/v2/v3, RMON, SNTP, LLDP
7. Network Security: supports SSH, SSL, ACL
8. Device Management: supports FTP upgrade
9. Device Maintenance: supports port mirroring
10. Alarm Output: supports IP/MAC conflicts, port and ring alarms
11. Special Function: supports Link Check and Loop Status Check

### Technical Specifications

#### Standard

IEEE 802.3i, IEEE 802.3u, IEEE 802.3ab, IEEE 802.3af, IEEE 802.3z, IEEE 802.3x, IEEE 802.1p, IEEE 802.1Q, IEEE 802.1w

#### Protocols

DT-Ring, DT-Ring+, DT-VLAN, RSTP;  
 IGMP Snooping, GMRP;  
 VLAN, PVLAN;  
 Telnet, HTTP, SNMPv1/v2/v3, RMON, LLDP, SNTP;  
 SSH, SSL, ACL;  
 ARP, FTP, QoS

#### Switch Properties

Priority Queues: 4  
 Number of VLANs: 256  
 VLAN ID: 1-4094  
 Number of Multicast Groups: 256  
 MAC Table: 8K  
 Packet Buffer: 4Mbit  
 Packet Forwarding Rate: 9.5Mpps  
 Switching Delay: <5μs

#### Interface

4 0.5U slots for 6-port Fast Ethernet interface modules (100Base-FX, 10/100Base-TX)  
 Gigabit Ethernet Ports: 4 1000Base SFP slots  
 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)

**LED**

- 1) LEDs on Front Panel:  
 Running LED: Run  
 Interface LED: Link/ACT (Fast Ethernet port), Speed (Fast Ethernet port), DPX (Gigabit port), Link (Gigabit port)
- 2) LEDs on Rear Panel:  
 Interface LED: Link/ACT  
 Port Speed LED: Speed

**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), 220AC/DC (85-265VAC/120-375VDC)
- Power Terminal: 3-phase AC electric outlet
- Power Consumption: <25W

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

**Physical Characteristics**

- Housing: Aluminum, fanless  
 Protection Class: IP40  
 Dimensions (WxHxD):  
 482.6x88x245mm (19x3.46x9.65 in.)  
 Weight: <5kg (11.023 pound)  
 Mounting: 19 inch 2U 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**

361,290 hrs

**Warranty**

5 years

**Approvals**

CE, FCC

**Industrial Standard**

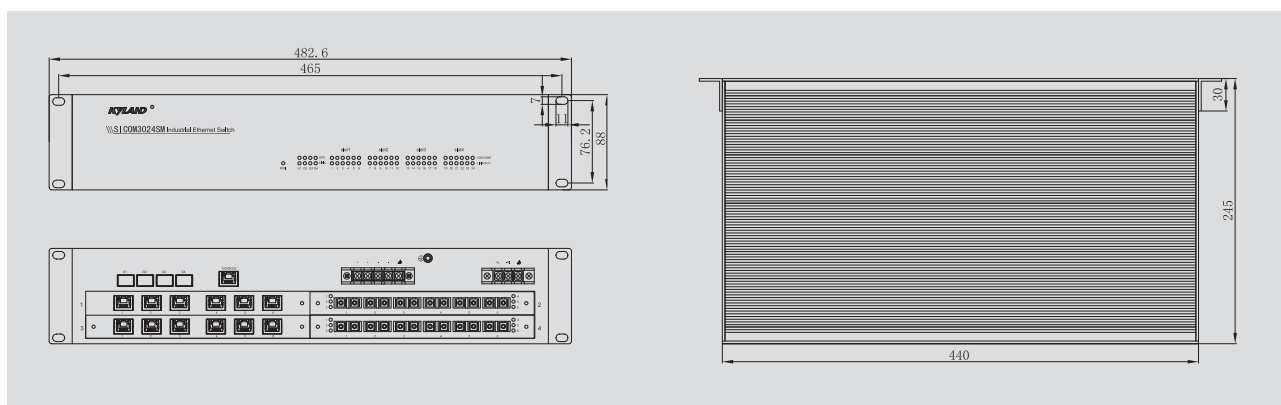
EMI:  
 FCC CFR47 Part 15, EN55022/CISPR22, Class A

- 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

Gigabit Ports	POE Power Supply	Power Supply
Slot1	Slot2	
Slot3	Slot4	

SICOM3024SM -      -      -      -      -       
                   C    S1    S2    S3    S4

### C: Chassis (Gigabit ports and power supply)

**4GX-24DC** = SICOM3024SM Chassis with 4 Gigabit SFP ports, 18-36VDC power supply, no PoE power supply

**4GX-48DC** = SICOM3024SM Chassis with 4 Gigabit SFP ports, 36-72VDC power supply, no PoE power supply

**4GX-220AC/DC** = SICOM3024SM Chassis with 4 Gigabit SFP ports, 120-375VDC/85-265VAC power supply, no PoE power supply

**24DC** = SICOM3024SM Chassis, 18-36VDC power supply, no PoE power supply

**48DC** = SICOM3024SM Chassis, 36-72VDC power supply, no PoE power supply

**220AC/DC** = SICOM3024SM Chassis, 120-375VDC/85-265VAC power supply, no PoE power supply

**POE-4GX-24DC** = SICOM3024SM Chassis with 4 Gigabit SFP ports, 18-36VDC power supply, 22-36VDC PoE power supply

**POE-4GX-48DC** = SICOM3024SM Chassis with 4 Gigabit SFP ports, 36-72VDC power supply, 36-57VDC PoE power supply

**POE-24DC** = SICOM3024SM Chassis, 18-36VDC power supply, 22-36VDC PoE power supply

**POE-48DC** = SICOM3024SM Chassis, 36-72VDC power supply, 36-57VDC PoE power supply

### S1-S4: 100M Slots

XX = None

**6SSC** = SM3.2-6S-SC-1310-40-V2.0, Interface module with 6 100Base-FX single mode fiber ports, 1310nm, 40km, SC connector

**6SST** = SM3.2-6S-ST-1310-40-V2.0, Interface module with 6 100Base-FX single mode fiber ports, 1310nm, 40km, ST connector

**6SFC** = SM3.2-6S-FC-1310-40-V2.0, Interface module with 6 100Base-FX single mode fiber ports, 1310nm, 40km, FC connector

**6SSC60** = SM3.2-6S-SC-1310-60-V2.0, Interface module with 6 100Base-FX single mode fiber ports, 1310nm, 60km, SC connector

**6SSC80** = SM3.2-6S-SC-1550-80-V2.0, Interface module with 6 100Base-FX single mode fiber ports, 1550nm, 80km, SC connector

**6MSC** = SM3.2-6M-SC-1310-5-V2.0, Interface module with 6 100Base-FX multi mode fiber ports, 1310nm, 5km, SC connector

**6MST** = SM3.2-6M-ST-1310-5-V2.0, Interface module with 6 100Base-FX multi mode fiber ports, 1310nm, 5km, ST connector

**6MFC** = SM3.2-6M-FC-1310-5-V2.0, Interface module with 6 100Base-FX multi mode fiber ports, 1310nm, 5km, FC connector

**4SSC2T** = SM3.2-4S-SC-1310-40-2T-V2.0, Interface module with 4 100Base-FX single mode fiber ports, 1310nm, 40km, SC connector, 2 10/100Base-TX RJ45 ports

**4SST2T** = SM3.2-4S-ST-1310-40-2T-V2.0, Interface module with 4 100Base-FX single mode fiber ports, 1310nm, 40km, ST connector, 2 10/100Base-TX RJ45 ports

**4SFC2T** = SM3.2-4S-FC-1310-40-2T-V2.0, Interface module with 4 100Base-FX single mode fiber ports, 1310nm, 40km, FC connector, 2 10/100Base-TX RJ45 ports

**4SSC602T** = SM3.2-4S-SC-1310-60-2T-V2.0, Interface module with 4 100Base-FX single mode fiber ports, 1310nm, 60km, SC connector, 2 10/100Base-TX RJ45 ports

**4SSC802T** = SM3.2-4S-SC-1550-80-2T-V2.0, Interface module with 4 100Base-FX single mode fiber ports, 1550nm, 80km, SC connector, 2 10/100Base-TX RJ45 ports

**4MSC2T** = SM3.2-4M-SC-1310-5-2T-V2.0, Interface module with 4 100Base-FX multi mode fiber ports, 1310nm, 5km, SC connector, 2 10/100Base-TX RJ45 ports

**4MST2T** = SM3.2-4M-ST-1310-5-2T-V2.0, Interface module with 4 100Base-FX multi mode fiber ports, 1310nm, 5km, ST connector, 2 10/100Base-TX RJ45 ports

**4MFC2T** = SM3.2-4M-FC-1310-5-2T-V2.0, Interface module with 4 100Base-FX multi mode fiber ports, 1310nm, 5km, FC connector, 2 10/100Base-TX RJ45 ports

**2SSC4T** = SM3.2-2S-SC-1310-40-4T-V2.0, Interface module with 2 100Base-FX single mode fiber ports, 1310nm, 40km, SC connector, 4 10/100Base-TX RJ45 ports

**2SST4T** = SM3.2-2S-ST-1310-40-4T-V2.0, Interface module with 2 100Base-FX single mode fiber ports, 1310nm, 40km, ST connector, 4 10/100Base-TX RJ45 ports

**2SFC4T** = SM3.2-2S-FC-1310-40-4T-V2.0, Interface module with 2 100Base-FX single mode fiber ports, 1310nm, 40km, FC connector, 4 10/100Base-TX RJ45 ports

**2SSC604T** = SM3.2-2S-SC-1310-60-4T-V2.0, Interface module with 2 100Base-FX single mode fiber ports, 1310nm, 60km, SC connector, 4 10/100Base-TX RJ45 ports

**2SSC804T** = SM3.2-2S-SC-1550-80-4T-V2.0, Interface module with 2 100Base-FX single mode fiber ports, 1550nm, 80km, SC connector, 4 10/100Base-TX RJ45 ports

**2MSC4T** = SM3.2-2M-SC-1310-5-4T-V2.0, Interface module with 2 100Base-FX multi mode fiber ports, 1310nm, 5km, SC connector, 4 10/100Base-TX RJ45 ports

**2MST4T** = SM3.2-2M-ST-1310-5-4T-V2.0, Interface module with 2 100Base-FX multi mode fiber ports, 1310nm, 5km, ST connector, 4 10/100Base-TX RJ45 ports

**2MFC4T** = SM3.2-2M-FC-1310-5-4T-V2.0, Interface module with 2 100Base-FX multi mode fiber ports, 1310nm, 5km, FC connector, 4 10/100Base-TX RJ45 ports

**6T** = SM3.2-6T-V2.0, Interface module with 6 10/100Base-TX RJ45 ports

#### **Example Order Codes**

SICOM3024SM-4GX-24DC-6T-6T-6MSC-4MSC2T

SICOM3024SM-4GX-24DC Chassis, 2 x SM3.2-6T, 1 SM3.2-6M-SC-1310-5-V2.0, 1 SM3.2-4M-SC-1310-5-2T-V2.0