# SICOM3024

## 24+4G Port Layer 2 Managed Rack Mountable Switches

- Supports max 4 gigabit SFP ports, 16 fast Ethernet RJ45 ports and 8 fast Ethernet fiber/copper ports
- Supports DT-Ring , RSTP for network redundancy
- Supports the IP/MAC address conflict alarm, power failure alarm, power alarm, port alarm, and ring alarm
- Complies with IEC 61850-3 and IEEE1613
- CE, FCC certification

CE FC

## Overview

SICOM3024 is a layer 2 managed industrial Ethernet switch designed to operate reliably in electrically harsh and climatically demanding utility substation and industrial environments. SICOM3024 supports up to 4 gigabit SFP ports, 16 fast Ethernet RJ45 ports and 8 fast Ethernet fiber/copper ports, meets the IEC 61850 and IEEE1613 standards. SICOM3024 is a 19-inch 1U rack mountable device and allows front and rear panel mounting. It supports many Layer 2 software features such as port, VLAN, multicast, QoS, fast redundant ring. It supports Console, Telnet, Web management and network management software based on SNMP. At present, the product is widely used in the power industry, railway industry, intelligent transportation industry and automatic control field.

## Software Functions

### Switching Function

Supports VLAN and PVLAN.
Supports port aggregation.
Supports flow control.
Support port rate limit
Supports broadcast storm suppression.

### Redundancy Protocol

Supports DT-Ring, DT-Ring+, and DT-VLAN and the recovery time<50 ms.
Supports STP/RSTP

### Multicast Protocol

Supports IGMP snooping.
Supports GMRP.

### Security

Supports IEEE 802.1x. (special version supports)
Supports HTTPS/SSL. (special version supports)
Supports SSH. (special version supports)
Supports RADIUS. (special version supports)
Supports TACACS+.(special version supports)
Supports user grading. (special version supports)
Supports MAC address limit. (special version supports)
Supports port isolate. (special version supports)

### Service Quality Management

Supports ACL
Supports SP and WRR queuing.

### Management & Maintenance

Supports Console, Telnet, and Web management methods.
Supports SNMPv1/v2c/v3 and can managed by Kyvision. (special version supports v3)
Supports software update and configuration import/ export over FTP.
Supports the IP/MAC address conflict alarm, power failure alarm, power alarm, port alarm, and ring alarm
Supports RMON.
Supports port mirroring.
Supports Syslog. (special version supports)
Supports LLDP.
Supports Link-check.
Supports loop detection. (special version supports)
Supports CRC protection. (special version supports)

### IP Address Management

Supports DHCP server/snooping/option 82. (Web interface doesn't support, and special version supports snooping and option82)

## Clock Management

Supports SNTP server/client.

# Product Specifications

## Technical Specifications

Standard
- ▼ IEEE 802.3i(10Base-T)
- ▼ IEEE 802.3u(100Base-TX and 100Base-FX)
- ▼ IEEE 802.3ab(1000Base-T)
- ▼ IEEE 802.3z(1000Base-SX/LX)
- ▼ IEEE 802.3x(flow control)
- ▼ IEEE 802.1p(priority)
- ▼ IEEE 802.1Q(VLAN)
- ▼ IEEE 802.1w(RSTP)

## Switching Properties

| | |
|---|---|
| Priority queue | 4 |
| Number of VLANs | 256 |
| VLAN ID | 1–4093 |
| Number of multicast groups | 256 |
| MAC table | 8K |
| Packet buffer | 2Mbit |
| Packet forwarding rate | 9.5Mpps |
| Switching delay | <10µs |

## Interface

Gigabit ports     1000Base-X, SFP port

Fast Ethernet ports
- ▼ 100Base-FX, single/multi mode, SC/ST/FC connector
- ▼ 10/100Base-T(X), RJ45 port

Console port     RS232,RJ45

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

## LED

LED on front panel
- ▼ Running LED: Run
- ▼ Alarm LED: Alarm
- ▼ Power LED: PWR1, PWR2
- ▼ Port LED: Link/ACT
- ▼ Port speed LED: Speed

LED on rear panel
- ▼ Port LED: Link/ACT
- ▼ Port speed LED: Speed

## Power Requirements

Power input
- ▼ 12DC(9-18VDC)
- ▼ 24DC(18-36VDC)
- ▼ 48DC(36-72VDC),
- ▼ 220AC/DCW(85-264VAC/77-300VDC)

Power terminal
- ▼ 5-pin 5.08 mm-spacing plug-in terminal block

| | |
|---|---|
| Power consumption | <21.6W |
| Overload protection | Support |
| Reverse connection protection | Support |
| Redundancy protection | Support |

## Physical Characteristics

| | |
|---|---|
| Housing | Metal |
| Cooling | Natural cooling, fanless |
| Protection Class | IP40 |
| Dimensions(WxHxD) | 482.6mm×44mm×245mm (19×1.73×9.64 in.) |
| Weight | 3Kg (6.61 pound) |
| Mounting | 19 inch 1U rack mounting |

## Environmental Limits

| | |
|---|---|
| Operating temperature | -40℃ to + 85℃  (-40°F to 185°F) |
| Storage temperature | -40℃ to + 85℃  (-40°F to 185°F) |
| Ambient Relative Humidity | 5% - 95% (non-condensing) |

## Quality Assurance

| | |
|---|---|
| MTBF | 318,296 hrs |
| Warranty | 5 years |

## Approvals

CE, FCC,
Please check Kyland website for the latest updates.

## Industry 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)

# Mechanical Drawing
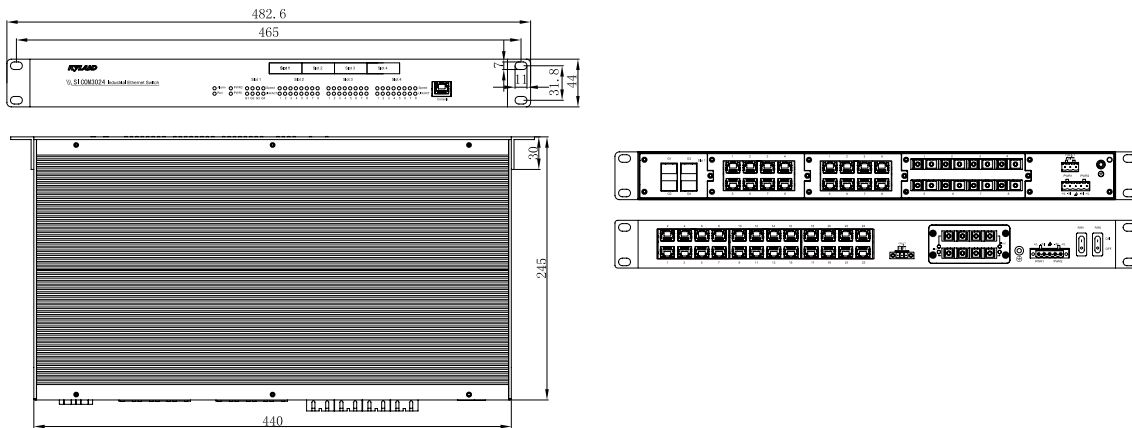


# Ordering Information

| SICOM3024-Ports-Connector-PS1-PS2 | |
|---|---|
| **Ports** | |
| 4GX8S16T | 4x1000Base-X SFP port;8x100Base-FX single-mode fiber port;16x10/100Base-T(X) RJ45 port |
| 4GX8M16T | 4x1000Base-X SFP port;8x100Base-FX multi-mode fiber port;16x10/100Base-T(X) RJ45 port |
| 4GX6S18T | 4x1000Base-X SFP port;6x100Base-FX single-mode fiber port;18x10/100Base-T(X) RJ45 port |
| 4GX6M18T | 4x1000Base-X SFP port;6x100Base-FX multi-mode fiber port;18x10/100Base-T(X) RJ45 port |
| 4GX4S20T | 4x1000Base-X SFP port;4x100Base-FX single-mode fiber port;20x10/100Base-T(X) RJ45 port |
| 4GX4M20T | 4x1000Base-X SFP port;4x100Base-FX multi-mode fiber port;20x10/100Base-T(X) RJ45 port |
| 4GX2S22T | 4x1000Base-X SFP port;2x100Base-FX single-mode fiber port;22x10/100Base-T(X) RJ45 port |
| 4GX2M22T | 4x1000Base-X  SFP port;2x100Base-FX multi-mode fiber port;22x10/100Base-T(X) RJ45 port |
| 4GX24T | 4x1000Base-X SFP port;24x10/100Base-T(X) RJ45 port |
| 4GX16T | 4x1000Base-X SFP port;16x10/100Base-T(X) RJ45 port |
| 8S16T | 8x100Base-FX single-mode fiber port;16x10/100Base-T(X) RJ45 port |
| 8M16T | 8x100Base-FX multi-mode fiber port;16x10/100Base-T(X) RJ45 port |
| 6S18T | 6x100Base-FX single-mode fiber port;18x10/100Base-T(X) RJ45 port |
| 6M18T | 6x100Base-FX multi-mode fiber port;18x10/100Base-T(X) RJ45 port |
| 4S20T | 4x100Base-FX single-mode fiber port;20x10/100Base-T(X) RJ45 port |
| 4M20T | 4x100Base-FX multi-mode fiber port;20x10/100Base-T(X) RJ45 port |
| 2S22T | 2x100Base-FX single-mode fiber port;22x10/100Base-T(X) RJ45 port |
| 2M22T | 2x100Base-FX multi-mode fiber port;22x10/100Base-T(X) RJ45 port |
| 24T | 24x10/100Base-T(X) RJ45 port |
| 4S24T | 4x100Base-FX single-mode fiber port;24x10/100Base-T(X) RJ45 port |
| 4M24T | 4x100Base-FX multi-mode fiber port;24x10/100Base-T(X) RJ45 port |
| 2S24T | 2x100Base-FX single-mode fiber port;24x10/100Base-T(X) RJ45 port |
| 2M24T | 2x100Base-FX multi-mode fiber port;24x10/100Base-T(X) RJ45 port |

SC connector, multi-mode, 1310nm, 5km

ST connector, multi-mode, 1310nm, 5km

FC connector, multi-mode, 1310nm, 5km

SC connector, single-mode, 1310nm, 40km

ST connector, single-mode, 1310nm, 40km

FC connector, single-mode, 1310nm, 40km

SC connector, single-mode, 1310nm, 60km

SC connector, single-mode, 1550nm, 80km

No 100M fiber port

| Connector | 100M fiber port specifications |
|-----------|-------------------------------|
| SC05 | SC connector, multi-mode, 1310nm, 5km |
| ST05 | ST connector, multi-mode, 1310nm, 5km |
| FC05 | FC connector, multi-mode, 1310nm, 5km |
| SC40 | SC connector, single-mode, 1310nm, 40km |
| ST40 | ST connector, single-mode, 1310nm, 40km |
| FC40 | FC connector, single-mode, 1310nm, 40km |
| SC60 | SC connector, single-mode, 1310nm, 60km |
| SC80 | SC connector, single-mode, 1550nm, 80km |
| None | No 100M fiber port |
| **PS1** | |
| HV | 220AC/DCW(85-264VAC/77-300VDC) |
| L1 | 48DC(36-72VDC) |
| L3 | 24DC(18-36VDC) |
| **PS2** | |
| HV | 220AC/DCW(85-264VAC/77-300VDC) |
| L1 | 48DC(36-72VDC) |
| L3 | 24DC(18-36VDC) |
| None | No secondary power supply |

# Accessories

| Accessory Model | Description |
|-----------------|-------------|
| Gigabit SFP module | See the selection table of industrial gigabit SFP module. |
| DT-FCZ-RJ45-01 | Single-port RJ45 dust plug |