

SICOM3024P



24+4G Port Layer 2 Managed Rack Mountable Switches

- Supports max 4 gigabit fiber/copper ports and 24 fast Ethernet fiber/copper ports
- Internal modular design for easy expansion
- Supports DT-Ring ,DRP, RSTP for network redundancy(special version supports DRP)
- Supports IEC61850 MMS management(special version supports)
- Supports alarm and syslog upload
- Complies with IEC61850-3 and IEEE1613
- KEMA, CE, FCC, UL certification



» Overview

SICOM3024P is a layer 2 managed industrial Ethernet switch designed to operate reliably in electrically harsh and climatically demanding utility substation and industrial environments. SICOM3024P supports up to 4 gigabit fiber/copper ports and 24 fast Ethernet fiber/copper ports, meets the IEC61850 and IEEE1613 standards and approved by KEMA. SICOM3024P is a 19-inch 1U rack mountable device and its internal modular design offers the maximum flexibility for easy expansion. SICOM3024P 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 at the intelligent substation and many other industrial communication systems.

» 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 DHP and DRP and the recovery time<20 ms (special version supports)
Supports STP/RSTP

Multicast Protocol

Supports IGMP snooping
Supports GMRP
Supports static multicast

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 binding (special version supports)
Supports port isolate

Service Quality Management

Supports ACL
Support 802.1p(CoS),DSCP
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 IEC 61850 MMS management (special version supports)
Supports software update over FTP
Supports the IP/MAC address conflict alarm, power failure alarm, power alarm, temperature alarm, port alarm, and ring alarm
Supports RMON
Supports port mirroring
Supports Syslog
Supports LLDP
Supports Link-check

IP Address Management

Supports Bootp
Supports DHCP server/snooping/option 82 (special version supports snooping and option82)

Clock management

Supports SNTP server/client
Supports RTC

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 802.3ad (port aggregation)
- ▼ IEEE 802.3x(flow control)
- ▼ IEEE 802.1p(priority)
- ▼ IEEE 802.1Q(VLAN)
- ▼ IEEE 802.1w(RSTP)

Switch Properties

Priority queue	4
Number of VLANs	256
VLAN ID	1-4093
Number of multicast groups	256
MAC table	8K
Packet buffer	4Mbit
Packet forwarding rate	9.5Mpps
Switching Capacity	12.8Gbps
Switching delay	<10μs

Interface

Gigabit ports

- ▼ 100Base-X, SFP port
- ▼ 10/100/1000Base-T(X), RJ45 port

Fast Ethernet ports

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

Console port	RS232,RJ45
Alarm contact	3-pin 5.08mm-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

- ▼ 24VDC(18-36VDC),
- ▼ 48VDC(36-72VDC),
- ▼ 100-240VAC,50/60Hz;110-220VDC (85-264VAC/77-300VDC)

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

Power consumption	<35W
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×322.5mm (19×1.73×12.70 in.)
Weight	4Kg (8.82 pound)
Mounting	19 inch 1U rack mounting

Environmental Limits

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

Quality Assurance

MTBF	346,889 hrs
Warranty	5 years

Approvals

KEMA: Models with power supply of HV:100-240VAC,50/60Hz;110-220VDC

CE: Models with power supply of HV:100-240VAC,50/60Hz;110-220VDC

FCC: Models with power supply of HV:100-240VAC,50/60Hz;110-220VDC
UL508,Class I,Div2: All models

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Industry Standard

EMI

- ▼ FCC CFR47 Part 15,EN55022/CISPR22,Class A

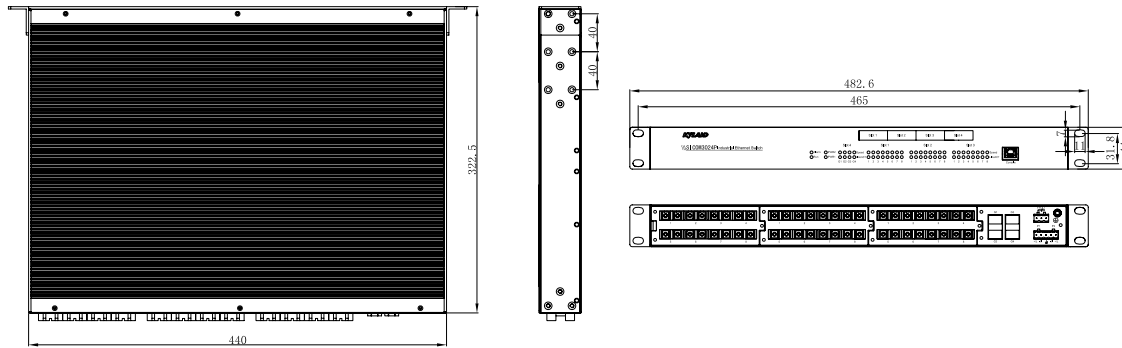
EMS

- ▼ 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

Product Model (with gigabit ports) SICOM3024P-Ports1Ports2-Connector-PS1-PS2

Ports1	Gigabit ports
4GX	4x1000Base-X,10/100/1000Base-T(X) SFP port
4GE	4x10/100/1000Base-T(X) RJ45 port
2GX	2x1000Base-X,10/100/1000Base-T(X) SFP port
Ports2	Fast Ethernet ports
24S	24x100Base-FX,single-mode fiber port
24M	24x100Base-FX,multi-mode fiber port
20S4T	20x100Base-FX,single-mode fiber port; 4x10/100Base-T(X) RJ45 port
20M4T	20x100Base-FX,multi-mode fiber port; 4x10/100Base-T(X) RJ45 port
16S8T	16x100Base-FX,single-mode fiber port; 8x10/100Base-T(X) RJ45 port
16M8T	16x100Base-FX,multi-mode fiber port; 8x10/100Base-T(X) RJ45 port
16S	16x100Base-FX,single-mode fiber port
16M	16x100Base-FX,multi-mode fiber port
12S12T	12x100Base-FX,single-mode fiber port; 12x10/100Base-T(X) RJ45 port
12M12T	12x100Base-FX,multi-mode fiber port; 12x10/100Base-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
8S	8x100Base-FX,single-mode fiber port
8M	8x100Base-FX,multi-mode fiber 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
24SFP	24x100Base-FX,SFP port
16SFP8T	16x100Base-FX,SFP port; 8x10/100Base-T(X) RJ45 port
16SFP	16x100Base-FX,SFP port
8SFP16T	8x100Base-FX,SFP port; 16x10/100Base-T(X) RJ45 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
NA:	No 100M fiber port or connector is SFP
PS1	
HV	100-240VAC,50/60Hz;110-220VDC(85-264VAC/77-300VDC)
L1	48VDC(36-72VDC)
L3	24VDC(18-36VDC)
PS2	
HV	100-240VAC,50/60Hz;110-220VDC(85-264VAC/77-300VDC)
L1	48VDC(36-72VDC)
L3	24VDC(18-36VDC)
None	No secondary power supply

Product Model (without gigabit ports)	SICOM3024P-Ports1-Connector-PS1-PS2
Code definition	Code selectio
Ports1	Fast Ethernet ports
24S	24x100Base-FX,single-mode fiber port
24M	24x100Base-FX,multi-mode fiber port
22S2T	22x100Base-FX,single-mode fiber port; 2x10/100Base-T(X) RJ45 port
22M2T	22x100Base-FX,multi-mode fiber port; 2x10/100Base-T(X) RJ45 port
20S4T	20x100Base-FX,single-mode fiber port; 4x10/100Base-T(X) RJ45 port
20M4T	20x100Base-FX,multi-mode fiber port; 4x10/100Base-T(X) RJ45 port
18S6T	18x100Base-FX,single-mode fiber port; 6x10/100Base-T(X) RJ45 port
18M6T	18x100Base-FX,multi-mode fiber port; 6x10/100Base-T(X) RJ45 port
16S8T	16x100Base-FX,single-mode fiber port; 8x10/100Base-T(X) RJ45 port
16M8T	16x100Base-FX,multi-mode fiber port; 8x10/100Base-T(X) RJ45 port
16S	16x100Base-FX,single-mode fiber port
16M	16x100Base-FX,multi-mode fiber port
14S10T	14x100Base-FX,single-mode fiber port; 10x10/100Base-T(X) RJ45 port
14M10T	14x100Base-FX,multi-mode fiber port; 10x10/100Base-T(X) RJ45 port
12S12T	12x100Base-FX,single-mode fiber port; 12x10/100Base-T(X) RJ45 port
12M12T	12x100Base-FX,multi-mode fiber port; 12x10/100Base-T(X) RJ45 port
12S4T	12x100Base-FX,single-mode fiber port; 4x10/100Base-T(X) RJ45 port
12M4T	12x100Base-FX,multi-mode fiber port; 4x10/100Base-T(X) RJ45 port
10S14T	10x100Base-FX,single-mode fiber port; 14x10/100Base-T(X) RJ45 port
10M14T	10x100Base-FX,multi-mode fiber port; 14x10/100Base-T(X) RJ45 port
8S20T	8x100Base-FX,single-mode fiber port; 20x10/100Base-T(X) RJ45 port
8M20T	8x100Base-FX,multi-mode fiber port; 20x10/100Base-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
8S8T	8x100Base-FX,single-mode fiber port; 8x10/100Base-T(X) RJ45 port
8M8T	8x100Base-FX,multi-mode fiber port; 8x10/100Base-T(X) RJ45 port

8S	8x100Base-FX,single-mode fiber port
8M	8x100Base-FX,multi-mode fiber port
6S22T	6x100Base-FX,single-mode fiber port; 22x10/100Base-T(X) RJ45 port
6M22T	6x100Base-FX,multi-mode fiber port; 22x10/100Base-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
6S14T	6x100Base-FX,single-mode fiber port; 14x10/100Base-T(X) RJ45 port
6M14T	6x100Base-FX,multi-mode fiber port; 14x10/100Base-T(X) RJ45 port
6S10T	6x100Base-FX,single-mode fiber port; 10x10/100Base-T(X) RJ45 port
6M10T	6x100Base-FX,multi-mode fiber port; 10x10/100Base-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
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
4S16T	4x100Base-FX,single-mode fiber port; 16x10/100Base-T(X) RJ45 port
4M16T	4x100Base-FX,multi-mode fiber port; 16x10/100Base-T(X) RJ45 port
4S12T	4x100Base-FX,single-mode fiber port; 12x10/100Base-T(X) RJ45 port
4M12T	4x100Base-FX,multi-mode fiber port; 12x10/100Base-T(X) RJ45 port
4S8T	4x100Base-FX,single-mode fiber port; 8x10/100Base-T(X) RJ45 port
4M8T	4x100Base-FX,multi-mode fiber port; 8x10/100Base-T(X) RJ45 port
2S26T	2x100Base-FX,single-mode fiber port; 26x10/100Base-T(X) RJ45 port
2M26T	2x100Base-FX,multi-mode fiber port; 26x10/100Base-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
2S14T	2x100Base-FX,single-mode fiber port; 14x10/100Base-T(X) RJ45 port
2M14T	2x100Base-FX,multi-mode fiber port; 14x10/100Base-T(X) RJ45 port
24T	24x10/100Base-T(X) RJ45 port
16T	16x10/100Base-T(X) RJ45 port
12T	12x10/100Base-T(X) RJ45 port
8T	8x10/100Base-T(X) RJ45 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
NA:	No 100M fiber port or connector is SFP
PS1	power input 1
HV	100-240VAC,50/60Hz;110-220VDC(85-264VAC/77-300VDC)
L1	48VDC(36-72VDC)
L3	24VDC(18-36VDC)
PS2	power input 2
HV	100-240VAC,50/60Hz;110-220VDC(85-264VAC/77-300VDC)
L1	48VDC(36-72VDC)
L3	24VDC(18-36VDC)
NA:	No secondary power supply

» Accessories

Accessory Model

Description

Gigabit SFP module

See the selection table of industrial gigabit SFP module.

100M SFP module

See the selection table of industrial 100M SFP module.

DT-FCZ-RJ45-01

Single-port RJ45 dust plug