# 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 IEC 61850 MMS management(special version
- Supports alarm and syslog upload
- Complies with IEC 61850-3 and IEEE1613
- KEMA, CE, FCC, UL certification(pending)





### 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 IEC 61850 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 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

# **Industrial Ethernet Solutions**

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 4 256 Number of VLANs VLAN ID 1-4093 Number of multicast groups 256 MAC table 8K Packet huffer 4Mhit Packet forwarding rate 9.5Mpps Switching delay <10µs

#### **Interface**

#### Gigabit ports

- ▼ 1000Base-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

3-pin 5.08mm-spacing plug-in Alarm contact

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

- 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 <35W Overload protection Support Reverse connection protection Support Redundancy protection Support

### **Physical Characteristics**

Metal

Cooling Natural cooling, fanless

Protection Class IP40

Dimensions(WxHxD) 482.6mm×44mm×322.5mm

> (19×1.73×12.70 in.) 4Kg (8.82 pound)

Mountina 19 inch 1U rack mounting

#### **Environmental Limits**

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

#### **Quality Assurance**

MTBF 346,889 hrs Warranty 5 years

#### **Approvals**

Weight

KEMA, CE, FCC, UL508 (pending), Class I, Div2 (pending) Please check Kyland website for the latest updates.

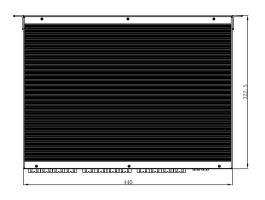
#### **Industry Standard**

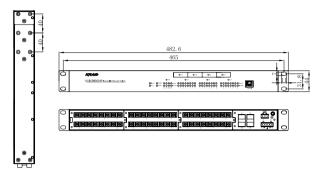
FCC CFR47 Part 15,EN55022/CISPR22,Class A FMS

- ▼ 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/
- ▼ 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

	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	
None	No Gigabit 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	
85	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	
	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

# Industrial Ethernet Solutions

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 or connector is SFP	
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	



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