

SICOM3024PT

Layer 2 24+4G Port Managed Rack Mountable Modular IEC61850 & IEEE1588 Switch



- Flexible modular design for easy expansion, and supports max 4 Gigabit ports and 24 fast Ethernet ports
- Supports DT-Ring protocols and RSTP
- Supports IEEE1588v2
- Supports Syslog upload and download
- Exceeds IEC61850-3 and IEEE1613



Overview

SICOM3024PT is a precise clock synchronization solution of IEC61850 compliant managed industrial Ethernet switch specifically designed to operate stably in electrically harsh and climatically demanding utility substation and industrial environments. It offers up to 24 100Base TP/Fiber ports, 4 Gigabit SFP slots or 10/100/1000Base-T(X) ports. The redundant function of optical fiber network, independent entire network management channel, dual redundant power supplies function, and entire network real-time management system provide multiplex guarantee for reliable operation of the system.

Features & Benefits

- Redundancy Technology: supports DT-Ring protocols (recovery time < 50ms) and RSTP
- Multicast Protocol: supports IGMP Snooping, GMRP and static multicast
- Network Partition: supports VLAN, PVLAN
- 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/v3, RMON, LLDP, RTC
- Synchronization Protocol: supports SNTP, IEEE1588v2
- Network Security: supports SSH, SSL, ACL
- Device Management: supports FTP upgrade, also supports Syslog upload and download
- Device Maintenance: supports port mirroring
- Alarm Output: supports IP/MAC conflicts, power, temperature, port and ring alarms
- Special Function: supports Link Check and Loop Status Check

Technical Specifications

Standard

IEEE 802.3i, IEEE 802.3u, IEEE 802.3ab, IEEE 802.3z, IEEE 802.3x, IEEE 802.1p, IEEE 802.1Q, IEEE 802.1w, IEEE1588v2

Protocols

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

SICOM3024PT-18: 5 1U slots for 4-port or 2-port Fast Ethernet interface modules (100Base-FX, 10/100Base-TX)
SICOM3024PT-28: 1 1U slot for 4-port Gigabit interface module (1000Base SFP, 10/100/1000Base-TX) and 6 1U slots for 4-port Fast Ethernet interface modules (100Base-FX, 10/100Base-TX)
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 port), Link (Gigabit port)
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: 24VDC (18-36VDC), 48VDC (36-72VDC), 220VAC/DC (85-264VAC/120-370VDC)
Power Terminal: 5-pin 5.08mm-spacing plug-in terminal block
Power Consumption: <30W (SICOM3024PT-18)
<40W (SICOM3024PT-28)
Overload Protection: Support
Reverse Connection Protection: Support
Redundancy Protection: Support

Physical Characteristics

Housing: Aluminum, fanless
Protection Class: IP40
Dimensions (W×H×D):
482.6×44×328mm (19×1.73× 12.91in.) (SICOM3024PT-18)
482.6×88×328mm (19×3.46× 12.91in.) (SICOM3024PT-28)
Weight: 3.5kg (7.716 pound) (SICOM3024PT-18)
5kg (11.023 pound) (SICOM3024PT-28)
Mounting: 19 inch 1U Rack mounting (SICOM3024PT-18)
19 inch 2U Rack mounting (SICOM3024PT-28)

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

333,900 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)

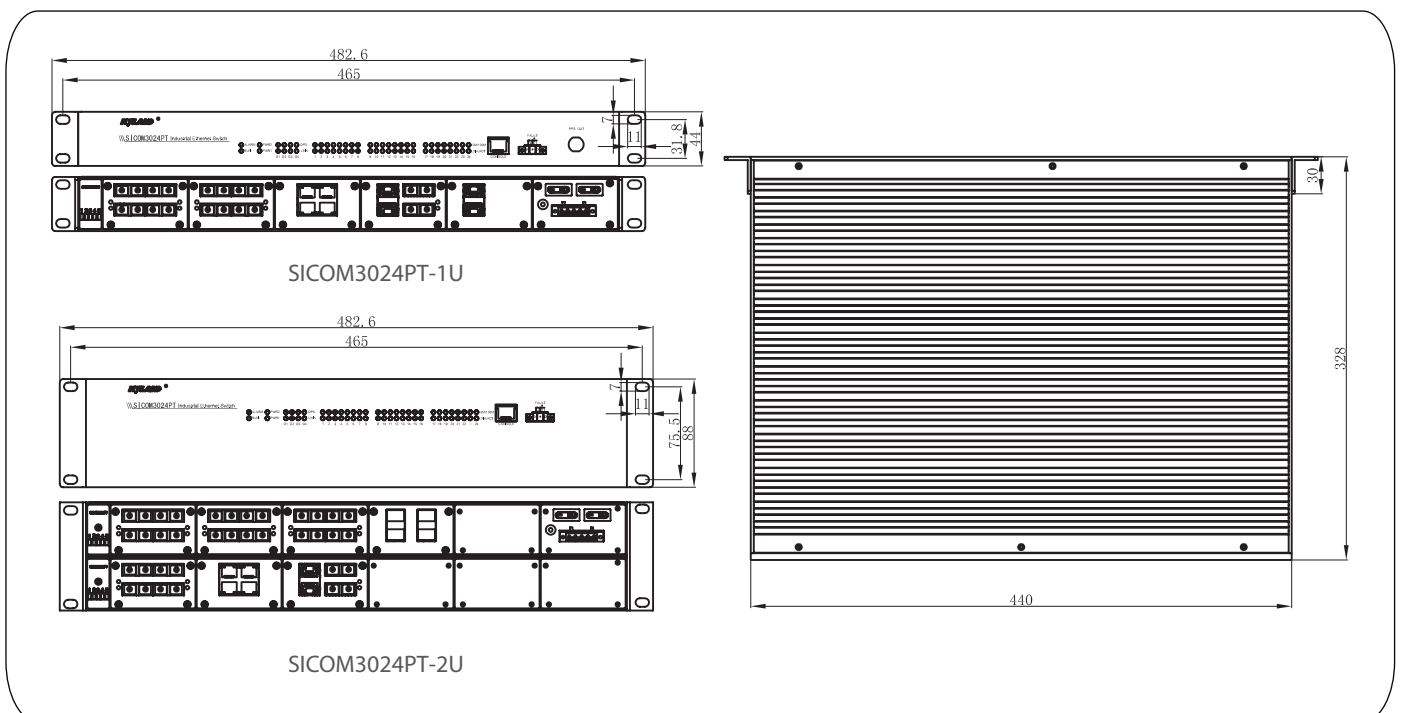
Machinery:

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

Model	Slot		Power Supply		
	1U Slot for Fast Ethernet Interface Module	1U Slot for Gigabit Ethernet Interface Module	18-36VDC	36-72VDC	85-264VAC/ 120-370VDC
SICOM3024PT-18-Chassis (1U)	5	--			
SICOM3024PT-28-Chassis (2U)	6	1			

Please Select

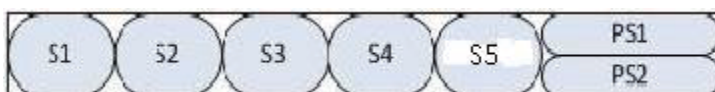
Interface Module	Gigabit Ethernet Port		Fast Ethernet Port			Fiber Connector			Slot
	1000Base SFP	10/100/1000Base-TX	100BaseFX Single Mode	100Base-FX Multi Mode	10/100Base-TX	SC	ST	FC	
SM3.1-4GE	--	4	--	--	--	--	--	--	1U
SM3.1-4GX	4	--	--	--	--	--	--	--	1U
SM3.1-4T	--	--	--	--	4	--	--	--	1U
SM3.1-2S-2T	--	--	2	--	2	Please Select			1U
SM3.1-2M-2T	--	--	--	2	2				1U
SM3.1-4S	--	--	4	--	--				1U
SM3.1-4M	--	--	--	4	--				1U
SM3.1-2T*	--	--	--	--	2	--	--	--	1U

*: SM3.1-2T interface module is only for SICOM3024PT-18 Chassis (1U).

Accessories

Model	Description
Gigabit SFP module	Refer to Kyland industrial Gigabit SFP list
DT-FCZ-RJ45-01	RJ45 dustproof shield

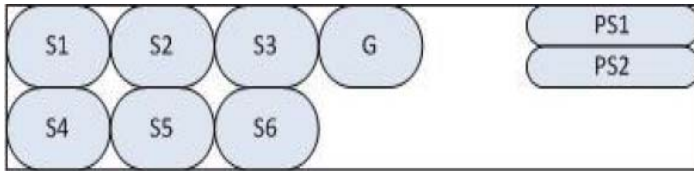
Order Codes



SICOM3024PT-18 rear view

SICOM3024PT -18- _____ - _____ - _____ - _____ - _____ - _____
S1 S2 S3 S4 PS1 PS2

1 U version, with SICOM3024PT-18-Chassis and 5 100M slots (S1-S5). S5 slot is only for SM3.1-2T interface module with 2 10/100Base-TX ports



SICOM3024PT-28 rear view

SICOM3024PT -28- _____
S1 S2 S3 S4 S5 S6 G PS1 PS2

2 U version, with SICOM3024PT-28-Chassis and 6 100M slots (S1-S6) and 1 Gigabit slot (G)

S1 to S6: 100M slots

2T=SM3.1-2T, interface module with 2 10/100Base-TX RJ45 ports (only for S5 slot in SICOM3024PT-18 Chassis)

4T=SM3.1-4T, interface module with 4 10/100Base-TX RJ45 ports

2SSC2T=SM3.1-2S-2T, interface module with 2 single mode fiber ports, 1310nm, 40km, SC connector, 2 10/100Base-TX RJ45 ports

2SST2T= SM3.1-2S-2T, interface module with 2 single mode fiber ports, 1310nm, 40km, ST connector, 2 10/100Base-TX RJ45 ports

2SFC2T= SM3.1-2S-2T, interface module with 2 single mode fiber ports, 1310nm, 40km, FC connector, 2 10/100Base-TX RJ45 ports

2MSC2T= SM3.1-2M-2T, interface module with 2 multi mode fiber ports, 1310nm, 5km, SC connector, 2 10/100Base-TX RJ45 ports

2MST2T= SM3.1-2M-2T, interface module with 2 multi mode fiber ports, 1310nm, 5km, ST connector, 2 10/100Base-TX RJ45 ports

2MFC2T= SM3.1-2M-2T, interface module with 2 multi mode fiber ports, 1310nm, 5km, FC connector, 2 10/100Base-TX RJ45 ports

4SSC= SM3.1-4S, interface module with 4 single mode fiber port, 1310nm, 40km, SC connector

4SST= SM3.1-4S, interface module with 4 single mode fiber port, 1310nm, 40km, ST connector

4SFC= SM3.1-4S, interface module with 4 single mode fiber port, 1310nm, 40km, FC connector

4MSC= SM3.1-4M, interface module with 4 multi mode fiber port, 1310nm, 5km, SC connector

4MST= SM3.1-4M, interface module with 4 multi mode fiber port, 1310nm, 5km, ST connector

4MFC= SM3.1-4M, interface module with 4 multi mode fiber port, 1310nm, 5km, FC connector

XX= None

(Note: Please contact sales if you need 60km, 80km single mode fiber ports or single bi-direction fiber ports.)

G: Gigabit slot

4GE=SM3.1-4GE, interface module with 4 10/100/1000Base-TX, RJ45 ports

4GX=SM3.1-4GX, interface module with 4 Gigabit SFP ports

XX= None

PS1 and PS2: Power Supply 1 and 2

24= 24VDC (18-36VDC)

48= 48VDC (36-72VDC)

220A=220VAC/220VDC (85-264VAC/120-370VDC)

XX=No power supply (PS2 only)

Example Order Codes

SICOM3024PT-28-4T-4T-4T-4T-4MSC-4MSC-4GX-220W-XX

2U version, SICOM3024PT-28-Chassis, 4 x SM3.1-4T, 2 x SM3.1-4M with SC connector, 1 SM3.1-4GX,

single power supply 85~264VAC/120~370VDC