

SICOM3048

Layer 2 48+4G Port Managed Rack Mountable Modular IEC61850 Switch



- Flexible 2U modular design for easy expansion
- Supports DT-Ring protocols and RSTP
- 24 Fast Ethernet fiber/RJ45 optional ports, and supports up to 4 Gigabit ports and 48 fast Ethernet ports
- Allows front and rear panel mounting
- Supports power failure alarm
- Compliant with IEC61850-3 and IEEE1613



Overview

SICOM3048 is a modular network-managed industrial Ethernet switch specially designed by KYLAND for industrial applications. Its high-performance switch engine, solid and closed case, high-efficiency single-rib-shape case for heat dissipation without using fans, over-current, over-voltage and EMC protection at power input side, and excellent EMC protection of RJ45 port allow SICOM3048 to work in harsh and dangerous industrial environments. The redundant function of optical fiber network, independent entire network management channel, redundant power input function, and powerful entire network real-time management system provide multiplex guarantee for reliable operation of the system.

Features & Benefits

1. Redundancy Technology: supports DT-Ring protocols (recovery time<50ms), 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, power, 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 802.3z, 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: 13.1Mpps
Switching Delay: <5μs

Interface

4 slots for 0.5U 6-port Fast Ethernet interface modules (100Base-FX, 10/100Base-TX)
Gigabit Ethernet Ports: 4 1000Base SFP slots in SICOM3048 chassis
Fast Ethernet Ports: 24 100Base-TX RJ45 ports in SICOM3048 chassis and max 24 100Base-FX, SM/MM ports, FC/SC/ST connector or 24 10/100Base-TX RJ45 ports by interface modules
Console Port: RS232 (RJ45 connector)

Alarm Contact: 3-pin 3.81mm-spacing plug-in terminal block, 250VAC/350VDC Max, 120mA Max

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), 110DC (82-185VDC), 220AC/DC (85-264VAC/120-370VDC)
Power Terminal:
3-pin 3.81mm-spacing plug-in terminal block (24VDC, 48VDC),
3-pin 9.5mm-spacing terminal block (110VDC, 220VAC/DC),
3-phase AC electric outlet
Power Consumption: <36.2W

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

Physical Characteristics

Housing: Aluminum, fanless
Protection Class: IP40
Dimensions (WxHxD):
482.6x88x245 mm (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

371,000 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)

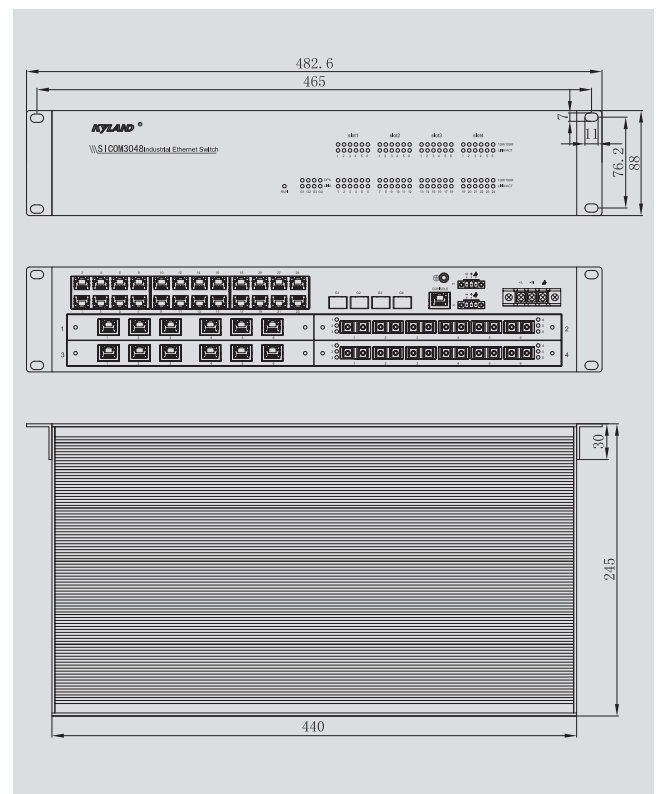
Industry: IEC61000-6-2

Power: IEC61850-3, IEEE1613

Railway: EN50155, EN50121-4

Traffic Control: NEMA TS-2

Mechanical Drawing



Ordering Information

Fixed 24T		Gigabit Ports	Power Supply
Slot 1	Slot 3	Slot 2	Slot 4

SICOM3048 - - - - -
 C S1 S2 S3 S4

C: Chassis (Gigabit ports and power supply)

4GX-24T-24DC = SICOM3048-4GX-24T-MB-24DC-3x9.5-V1.1, SICOM3048 Chassis with 4 Gigabit SFP ports, fixed 24 10/100Base-TX RJ45 ports, 24VDC (18-36VDC) power supply

4GX-24T-48DC = SICOM3048-4GX-24T-MB-48DC-3x9.5-V1.1, SICOM3048 Chassis with 4 Gigabit SFP ports, fixed 24 10/100Base-TX RJ45 ports, 48VDC (36-72VDC) power supply

4GX-24T-110VDC = SICOM3048-4GX-24T-MB-110DC-3x9.5-V1.1, SICOM3048 Chassis with 4 Gigabit SFP ports, fixed 24 10/100Base-TX RJ45 ports, 110VDC (82-185VDC) power supply

4GX-24T-220AC/DC = SICOM3048-4GX-24T-MB-220AC/DC-3x9.5-V1.1, SICOM3048 Chassis with 4 Gigabit SFP ports, fixed 24 10/100Base-TX RJ45 ports, 220VAC/DC (85-264VAC/120-300VDC) 50/60Hz power supply

24T-24DC = SICOM3048-24T-MB-24DC-3x9.5-V1.1, SICOM3048 Chassis with fixed 24 10/100Base-TX RJ45 ports, 24VDC (18-36VDC) power supply

24T-48DC = SICOM3048-24T-MB-48DC-3x9.5-V1.1, SICOM3048 Chassis with fixed 24 10/100Base-TX RJ45 ports, 48VDC (36-72VDC) power supply

24T-110DC = SICOM3048-24T-MB-110DC-3x9.5-V1.1, SICOM3048 Chassis with fixed 24 10/100Base-TX RJ45 ports, 110VDC (82-185VDC) power supply

24T-220AC/DC = SICOM3048-24T-MB-220AC/DC-3x9.5-V1.1, SICOM3048 Chassis with fixed 24 10/100Base-TX RJ45 ports, 220VAC/DC (85-264VAC/120-300VDC) 50/60Hz power supply

Note: SICOM3048 only supports single 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

SICOM3048-4GX-24T-6T-6T-6MSC-4MSC2T-220AC/DC-XX

SICOM3048-4GX-24T 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, single power supply 85-264VAC/120-300VDC