SICOM3005A

6 Port Managed Din-Rail Serial Device Server Integrated Ethernet Switch

- Support IEC62439-6/DRP, DT-Ring and MSTP
- Integrates industrial Ethernet switch with serial device server which supports 4 RS232/RS485/RS422 ports in RJ50 connectors
- Serial ports support TCP Server/Client, UTP working mode
- Serial ports support hardware flow control (RTS/CTS)
- Supports whitelist function for cyber security
- Supports serial port data mirroring which is based on TCP/UDP connection
- 1500VAC isolation protection for serial signals
- EMC performance reaches industrial level 4
- IP40 protection class

Overview

SICOM3005A series is a serial device server integrated industrial Ethernet switch supporting 4 RS232/485/422 serial ports, 6 100Mbits fast Ethernet ports including optional 2 fiber optic or 10/100Base-TX RJ45 ports and 4 10/100Base-TX RJ45 ports. SICOM3005A series supports extended power supply range including 12DC(9-18VDC), 24DCW(18-72VDC), and 220AC/DCW(85-264VAC/77-300VDC) which enable SICOM3005A for all kinds of industrial applications including power utilities. The serial device server of SICOM3005A series supports flow control, multiport serial to UDP, mirroring of serial traffic and 1500VAC isolation protection for serial signals. The 4 serial ports of SICOM3005A are in RJ50 connectors and the serial device server shares the same firmware version with Kyland GPT serial device server modules. The SICOM3005A series combines an industrial device server with a full-function managed Ethernet switch allowing you to easily install, manage, and maintain the product, saving space in your cabinet, and reducing overall power consumption and costs. SICOM3005A is specially designed for industrial applications being able to handle a wide range of temperatures and ensure high reliability in extreme industrial environments. Based on Kyvision3.0 NMS, CLI, WEB interface, it offers centralized management. The state-of-the-art OPC software enables the switch's management embedded in various industrial systems.

Features & Benefits

- Redundancy Technology: Supports DRP (recovery time<20ms), DT-Ring and MSTP
- 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, RMON, LLDP, SNTP, DHCP
• Network Security: supports SSH, SSL, ACL, port and MAC address binding
• Device Management: supports FTP upgrade
• Device Maintenance: support port mirroring
• Alarm Output: supports IP/MAC conflicts, power, ports and ring alarm
• Special Function: support Link Check and Loop status check

Technical Specifications

Standard
IEEE 802.3i, IEEE 802.3u, IEEE 802.3x, IEEE 802.1p, IEEE 802.1Q, IEEE 802.1s

Protocol
IEC62439-6/DRP, DT-Ring, DT-Ring+, DT-VLAN, MSTP;
IGMP Snooping, GMRP, DHP;
VLAN, PVLAN;
Telnet, HTTP, HTTPS, SNMPv1/v2, RMON, LLDP, SNTP, DHCP server;
SSH, SSL, ACL;
FTP;
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: 2Mbit
Packet Forwarding Rate: 0.9Mpps
Switching Delay: <5µs

Interface

Fast Ethernet Fiber Ports: max 2 100Base-FX SM/MM ports, FC/SC/ST connector
Fast Ethernet RJ45 Ports: max 6 10/100Base-TX RJ45 ports
Serial Ports: max 4 RS232/RS485 ports, RJ50 connectors
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: Run1
Serial Server Running LED: Run2
Power LED: PWR1, PWR2
Transmitting and Receiving LEDs of Serial Ports: T1-T4, R1-R4
Interface LED: Link/ACT, Speed (RJ45 port), Link/ACT (100M fiber ports)

Reset Button

Reboot and load default configuration

Transmission Distance

Serial Cable: RS232: 15m; RS485: 1200m
Twisted Pair: 100m (Standard CAT5, CAT5e network cable)
Multi Mode Fiber: 1310nm, 5km (100M)
Single Mode Fiber: 1310nm, 40km/60km (100M)
                               1550nm, 60km/80km (100M)

Power Requirements

Power Input: 12DC (9-18VDC), 24DCW (18-72VDC),
                   220AC/DCW(85-264VAC/77-300VDC)
Power Terminal: 5-pin 5.08mm-spacing plug-in terminal block
Power Consumption: <12W
Overload Protection: Support
Reverse Connection Protection: Support
Redundancy Protection: Support

Physical Characteristics

Housing: Metal, fanless
Protection Class: IP40
Dimensions (W×H×D): 66×135×106.5mm (2.60x5.31x4.19 in.)
Weight: 1kg (2.204 pound)
Mounting: DIN-Rail or Panel mounting

Environmental Limits

Operating Temperature: -40 to 75^{0}C (-40 to 167^{0}F)
Storage Temperature: -40 to 85℃ (-40 to 185°F)
Ambient Relative Humidity: 5 to 95% (non-condensing)

MTBF

307,699 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
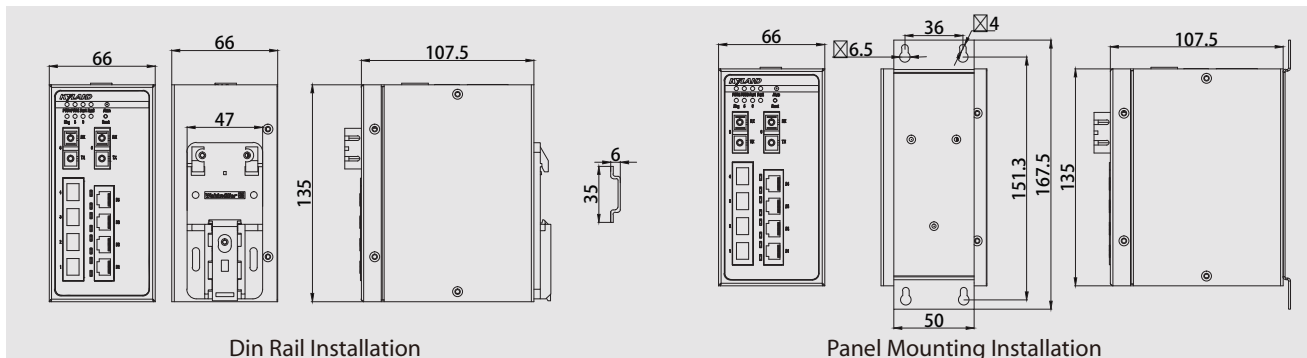IEC61000-4-5 (Surge): Power Port: ±2kV/DM, ±4kV/CM; Data Port: ±2kV
IEC61000-4-6 (CS): 3V (10kHz-150kHz); 10V (150kHz-80MHz)
IEC61000-4-16 (Common mode conduction): 30V (cont.), 300V (1s)
Machinery:
IEC60068-2-6 (Vibration), IEC60068-2-27 (Shock), IEC60068-2-32 (Free Fall)
Industry: IEC61000-6-2

⮞⮞ Mechanical Drawing

Din Rail Installation

Panel Mounting Installation

⮞⮞ Ordering Information

SICOM3005A - _____-_____ - _____ - _____
                       Ports   Distance   Connector   PS

Ports

2M-4T-4D = 2 100Base-FX multi mode ports, 4 10/100Base-TX RJ45 ports, 4 RS232/485 serial ports
2S-4T-4D = 2 100Base-FX single mode ports, 4 10/100Base-TX RJ45 ports, 4 RS232/485 serial ports
6T-4D = 6 10/100Base-TX RJ45 ports, 4 RS232/485 serial ports

Distance: Fiber Distance

1310-5 = 1310nm, 5km
1310-40 = 1310nm, 40km

1310-60 = 1310nm, 60km
1550-80 = 1550nm, 80km

Connector: Fiber Connector

SC = SC connectors
ST = ST connectors
FC = FC connectors

PS: Power Supply

12DC = 9-18VDC, dual redundant power inputs
24DCW = 18-72VDC, dual redundant power inputs
220AC/DCW = 85-264VAC/77-300VDC, single power input