KYLAND

Industrializing the Ethernet
Simplifying Industrial Communication

SICOM3171
4 Port Managed Traffic Ethernet Serial Device Server

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Traffic Etherent
Serial Device
Server

CE, FCC, RoHS

green ethernet.

Overview

SICOM3171 is an ultra low power consumption (less than 3.5Watts), Managed Traffic Ethernet Serial Device Server. This single slot serial server is designed to slide into an open Detector Chassis Slot of any signal cabinet. This Traffic Serial Server is widely deployed in SCADA and OSS networks around world. This proven ultra low power consumption serial server(Green Product-RoHS) features one 10/100Base-TX Ethernet port, and four serial ports being selectable for RS232, RS422 and RS485 serial connectivity. The SICOM3171 Managed Traffic Ethernet Serial Server is the second of a series of EZ Traffic Networks products form Kyland and a continuation of our "**Green Ethernet**" product line.

The SICOM3171 Traffic Ethernet Serial Server has COM, TTY or GUI port control and management function, offers monitoring and diagnostic utility. It enables data security via SSHv2 and SSL/TLS, and variety of IP addressing methods DHCP, RARP, ARP-PING for remote installation. It's the ideal for network enabling and remotely managing variable message signs, loop detectors, ramp meters or any RS-232/422/485 serial device. This serial sever can be easily installed into any traffic cabinet with an open single slot in a detector input chassis. Clean, filtered 12VDC or 24VDC power is provided directly from the back-plane of the detector chassis and eliminates adding to the mess of additional power supplies and power cables within the traffic cabinet.

Features

1. Supports 1 10/100Base-TX Ethernet port, 4 10-pin RJ45 serial ports being selectable for RS232, RS42 and RS485 serial connectivity.
2. Embedded platform, developed under Linux system, supports redevelopment
3. Serial port protecting circuit, meets the requirements of anti-interference with industrial level 4
4. Supports CLI, TELNET, WEB, SNMP v1/v2/v3 and OPC management control
5. Supports COM, TTY or GUI port control and management
6. Variety of IP addressing methods DHCP, RARP, ARP-PING for remote installation
7. Supports IGMP Snooping, port trunking, port mirroring, QoS, VLAN and ACL
8. Supports TACACS+, Radius, SSH/SSL with improved network security functions
9. Supports port speed limitation and special broadcast storm control
10. Safe MAC and port binding function, static FDB supported

11. Improves network monitoring ability through RMON (Group 1, 2, 3 and 9)
12. Supports Automatic Network Topology Discovery and Generation with Kyvision3.0 centralized management
13. EMC industrial level 4 compliance, designed to work in electromagnetic environment
14. Ultra low power consumption less than 3.5 Watts of power under fully loaded conditions
15. Easy installation (slide it into the chassis and it immediately powers up)
16. Plug and play, no power supply or electrical connections to worry about, 12VDC or 24VDC power supply is offered by the cabinet backplane
17. RESET button in the front panel for easy rebooting
18. Compatible with the interface requirements in the Caltrans TEES (170/332) specification
19. Operating temperature: -40 to 85°C (-40 to 185°F)
20. Aluminum case with fanless design (Convection Cooled)
21. IP40 protection class

Technical Specifications

Standard
IEEE802.3
IEEE802.3u
IEEE802.3x
IEEE802.1q
IEEE802.1p
IEEE802.1d
IEEE802.1w
Store and forward switching mode
UDP/TCP, Supports multiple unicasts,DHCP/RARP/ARP-Ping for IP Address assignment, Extended Telnet RFC 2217,Telnet, Reverse Telnet, Modbus to Modbus/TCP protocol conversion support

Interface
Ethernet port: 1 10/100Base-TX RJ45 port
Serial ports: 4 10-pin RJ45 RS232/422/485 serial ports; 50bps-1000Kbps throughput, default baud rate is 9600bps
RS-232: TXD, RXD, RTS, CTS, DTR, DSR, DCD
RS-422: Tx+, Tx-, Rx+, Rx-, GND
RS-485 (4wire): Tx+, Tx-, Rx+, Rx-, GND
RS-485 (2wire): Data+, Data-, GND

Power Requirements
Power input: Universal power supply 9-36VDC (12VDC, 24VDC)
Power consumption: <3.5 Watts

Physical Characteristics
Casing: IP40 protection
Aluminum housing fanless design (Convection Cooled)
Dimensions(WxHxD): 30x114x205mm (1.18x4.49x8.07in.) (Including the handle)
Weight: 350g (12.35oz)
Installation: Rail installation in Caltrans TEES (170/332) cabinet or any Signal cabinet equipped with a Detector Chassis

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: 0 to 95% (non-condensing)

Approvals

IEC61000-4-2(ESD): ±8KV contact discharge, ±15KV air discharge
IEC61000-4-3(RS): 10V/M (80-1000MHz)
IEC61000-4-4(EFT): ±4KV power lead, ±2KV data lead
IEC61000-4-5(Surge): power lead ±4KV CM/ ±2KV DM, data lead ±2KV
IEC61000-4-6(CS):3V(10KHZ-150KHZ),10V(150KHz-80MHz)
IEC61000-4-8(Power frequency magnetic field):100A/m cont. 1000A/m, 1s to 3s
IEC61000-4-12/18(Damped oscillatory wave):2.5KV CM, 1KV DM
IEC61000-4-10(Damped oscillatory):30A/m
IEC61000-4-16(Common mode conduct):30V cont. 300V, 1s
Safety: UL/CUL60950, IEC60950, CB
Emissions/Immunity: EN55022: Class A; EN55024; FCC CFR47 Part 15; AS/NZS 3548; VCCI V-3/99 .05
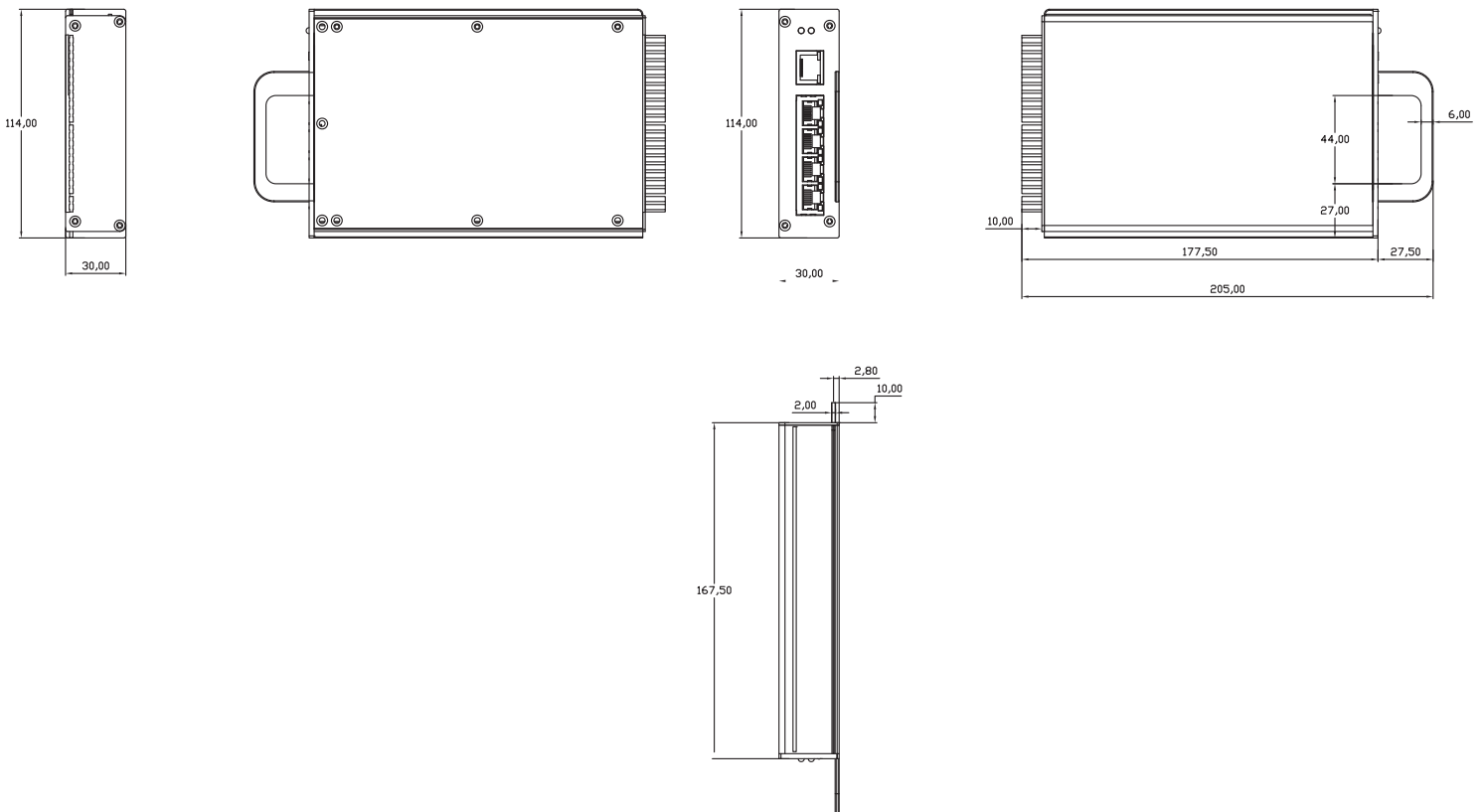NEMA TS2 Compliant
CE,FCC,RoHS

MTBF

35 years

Warranty

5 Years

Mechanical Drawing

Ordering Information

Model	Description	Power Supply
SICOM3171-T-4D	1x10/100Base-TX RJ45 Ethernet port; 4x 10-pin RJ45 RS232/422/485 Serial Ports	Universal power supply: 9-36VDC (12VDC, 24VDC)