KYLAND

Ethernet for Intelligent Transportation Systems
Simplifying Traffic/ITS Communication

SICOM3170
Gigabit Managed Traffic/ITS Ethernet Switch
(2) Gb SFP; (1) 10/100/1000 RJ45; (7) 10/100 RJ45

Rear View

green ethernet

7.2 Watts

CE, FCC, & RoHS Compliant

US Patent Pending

Overview

The SICOM3170 Traffic/ITS Ethernet switch packs a powerful set of features into an industry-standard 4-channel vehicle detector form factor. This "Green Ethernet" switch uses an astonishingly low eight watts or less, allowing it to be hot-plugged into any CalTrans input file (or NEMA TS 1/TS 2 detector rack) for rapid and reliable field deployment.

Quick installation in the input file/detector rack eliminates the unreliability of external power supplies, the problem of finding filtered AC power within the cabinet, and the difficulty of a clean physical installation in today's crowded traffic cabinets.

As the premier unit in the Traffic/ITS line of products, the fully managed SICOM3170 is perfect for the deployment of video surveillance, controller communications, DMS signs, and other Traffic/ITS applications.

Features

• 2 Gigabit SFP fiber Uplink ports, 1 RJ45 10/100/1000Mbps port, and 7 RJ45 10/100Mbps ports.

• Ultra low power consumption, the SICOM3170 uses less than 8 Watts of power under fully loaded conditions.

• Supports IGMP Snooping, Port Mirroring, QoS, VLAN.

• Supports TACACS+, Radius, SSH/SSL and improves Network Security functions.

• Supports Rapid Spanning Tree (RSTP/STP IEEE802.1w/d) and DT-Ring/DT-Ring+ (Self healing rings with a recovery time of <50ms).

• Supports Automatic Network Topology Discovery and Generation with Kyvision3.0 centralized management.

• Supports CLI, TELNET, WEB, SNMP v1/v2/v3 and OPC management control.

• SICOM series uniform Kyvision3.0 management software.

• Secure MAC and port binding function, supports static FDB.

• Port rate bandwidth limiting.

• Enhanced Broadcast Storm Control.

Features (cont'd.)

• EMC industrial level 4, able to work in harsh environments.

• Easy installation (slide it into the detector rack/input file chassis and it immediately powers up).

• Compatible with the interface requirements in the CalTrans TEES (170/332) specification.

• Aluminum case with fanless design (convection cooled).

• IP40 protection class.

Technical Specifications

Standards

IEEE802.1q	IEEE802.1w	IEEE802.3x
IEEE802.1p	IEEE802.3	IEEE802.3z
IEEE802.1d	IEEE802.3u	IEEE802.3ab

Store and forward switching mode

Topologies
- Supports Ring, Link, Daisy-Chain (drop and repeat), star, and Tangent Ring network topologies.

Interface
(2) Gigabit SFP ports, 1000Base-SX/LX/LH/ZX modules with LC connector can be selectable.
(1) 10/100/1000Mbps RJ45 port.
(7) 10/100Mbps RJ45 ports.
(1) RS232, RJ45 Console port.

Status Indicators
- Please see reverse for details on the SICOM 3170 Status Indicators.

Performance
- MAC Address Table Size: 8K
- Backplane switching capacity: 9.6G

Power Requirements
- Power input: 9-36VDC (12VDC, 24VDC)
- Power consumption: Less than 8W power consumption in a standard NEMA or CalTrans detector rack/input file.
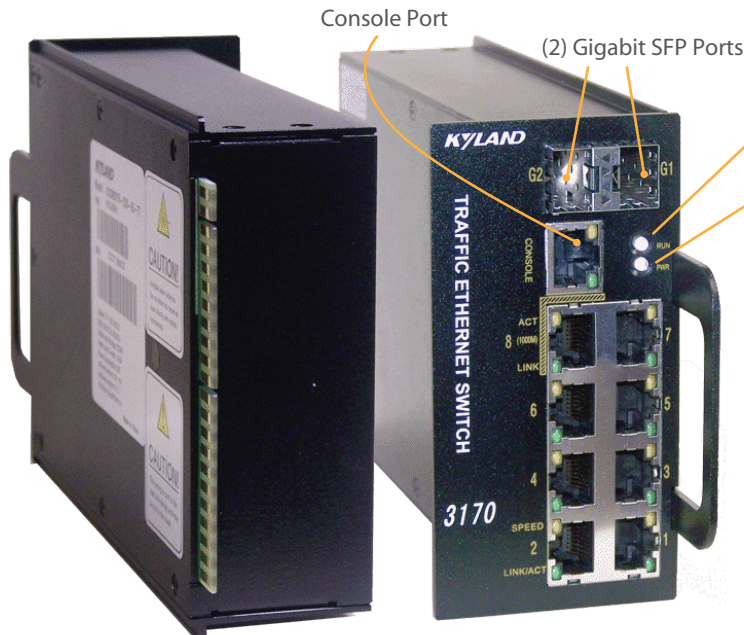
Cable
- Twisted pair: 0-100m (Standard CAT5, CAT5e, CAT6, and CAT6a network cable).
- Multi-mode fiber: 1310nm, 0-2km (1000M).
- Single-mode fiber: 1310nm, 0-40km;1550nm, 0-80km.

Physical Characteristics
- Casing: IP40-rated aluminum housing with fanless design.
- Weight: 1.764 pound (800g).
- Dimensions: 2.28"W"x4.49H"x8.07D" in. (58x114x205mm).
- Form Factor: Rail installation in CalTrans TEES (170/332) cabinet or NEMA TS 1/ TS 2 cabinet.

Environmental Limits
- Operating Temperature: -40 to 185°F (-40 to 85°C).
- Storage Temperature: -40 to 185°F (-40 to 85°C).
- Ambient Relative Humidity: 0 to 95% (non-condensing).

www.kyland-usa.com
sales@kyland-usa.com
Phone: 816-256-2477

Version: 04102010

KYLAND

Ethernet for Intelligent Transportation Systems
Simplifying Traffic/ITS Communication

SICOM3170
Gigabit Managed Traffic/ITS Ethernet Switch
(2) Gb SFP; (1) 10/100/1000 RJ45; (7) 10/100 RJ45

Console Port

(2) Gigabit SFP Ports

RUN: A blinking LED indicates the system is running well. No LED illumination indicates a system failure or that the system is not booted.

PWR: If LED is illuminated, the power is ON. If LED is not illuminated, the device has been turned off, a device failure, or a power failure to the cabinet has occured.

SFP Port Status:
Illuminated LED: Port is linked.
Blinking LED: Port linked with active data transmission.
No LED light denotes no active network connection.

10/100/1000Mbps Port LED:
Green LED: Port is linked.
No Green LED: No active network connection.
Yellow LED: Port linked with active data transmission.
No Yellow LED: Port with no active data transmission.

10/100Mbps Port LED:
Yellow LED indicates 100M Data rate.
No Yellow LED indicates a 10M Data rate.
Green LED indicates port is linked.
Blinking Green LED indicates active data transmission.
No Green LED means no active network connection.

MTBF *(Mean Time Between Failure)*
35 years

Warranty
5 Years

Approvals & Certifications

NEMA TS 1 and TS 2 Certified Device
IEC61000-4-2(ESD): ±8KV contact discharge, ±15KV air discharge
IEC61000-4-3(RS): 10V/M (80-1000MHz)
IEC61000-4-4(EFT): ±4KV power line, ±2KV data line
IEC61000-4-5(Surge): power line ±4KV CM/ ±2KV DM, data line ±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
FCC CFR47 Part 15/EN55022: Class A&B
IEC61000-6-2(Industrial Standards), IEC61850-3(Substations), IEEE1613(Electric Power Substations), EN50121-4(Railway Applications)

Ordering Information

Model	Description	Power
SICOM3170-2GX-GE-7T	(2) Gigabit SFP Ports (1) 10/100/1000Mbps Port (7) 10/100Mbps Ports	Powered by plugging into a standard detector rack/input file (12VDC, 24VDC)

Optional Gigabit SFP Modules *(uses non-proprietary SFP Optic Modules)*

Model	Description
MM-GSFP-LX/LC-550	SFP module, 1 x 1000M Multi Mode, LC Connector, 1310nm, 550m
SM-GSFP-LX/LC-10	SFP module, 1 x 1000M Single Mode, LC Connector, 1310nm, 10km
SM-GSFP-LH/LC-40	SFP module, 1 x 1000M Single Mode, LC Connector, 1310nm, 40km
SM-GSFP-ZX/LC-60	SFP module, 1 x 1000M Single Mode, LC Connector, 1550nm, 60km
SM-GSFP-ZX/LC-80	SFP module, 1 x 1000M Single Mode, LC Connector, 1550nm, 80km

KYLAND *Authorized Distributor*

www.kyland-usa.com
sales@kyland-usa.com
Phone: 816-256-2477