The RocketLinx ES8508-XT is an industrial-grade managed 8-port Fast Ethernet switch featuring advanced Layer 2 management, security, and system reliability for deployment in extreme and mission critical networking applications.

The ES8508-XT design incorporates the latest managed switch technologies to ensure reliable, high-bandwidth data communications including a 32Gbps switch fabric for real-time non-blocking data transmission, redundant network topology supporting ring, RSTP and MSTP, and a high performance ARM9 processor with an embedded hardware watchdog timer. These features combined with a rugged IP-31 grade housing and extended operating temperature guarantee performance and stability for traffic, rail, and other demanding applications.

**KEY FEATURES AND BENEFITS:**

- Eight 10/100BASE-TX ports
- EN50121-4 EMC and IEC 61373 vibration standards for railway applications
- Advanced Layer 2 features including: VLAN, Private VLAN, QinQ, GVRP, QoS, IGMP Snooping V1/V2/V3, rate control port trunking, LACP, and online multiport mirroring
- 32Gbps non-blocking, 8K MAC address table
- RSTP, MSTP and redundant ring support with sub 5ms ring recovery
- Management via Web, PortVision DX, SNMP, Telnet, and Serial Console
- Modbus TCP/IP support for participation on industrial Ethernet networks
- Hardware watchdog timer for system reset and recovery
- Configurable multi-event alarm output
- IP31 rated rugged aluminum housing with DIN rail mounting
- Dual 10-60VDC redundant power inputs
- Wide operating temperature (-40° to 75°C)
- IPv6 support
- RoHS2 compliance under CE
- NEMA TS2 certified
Specifications are subject to change without notice.

© 2013 by Comtrol Corporation. All Rights Reserved. Printed in the U.S.A. All trademarks used herein are the property of their respective trademark holders.

5-year limited warranty.

Warranty Information

10/100BASE-TX, auto MDI/MDIX, auto-negotiation (speed/duplex mode)

Cable Types
Cat 3, Cat 4, Cat 5, Cat 5e (UTP or STP)

Link Distance
100 meters

Port Alarm Relay
Yes

Standards
IEEE 802.1A9: Link Layer Discovery Protocol (LLDP)
IEEE 802.1B-2004: Rapid Spanning Tree Protocol (RSTP)
IEEE 802.1Q: VLAN Tagging and GVRP
IEEE 802.1Qa: Multiple Spanning Tree Protocol (MSTP)
IEEE 802.1Qo: Port Based Network Access Control
IEEE 802.1Qad: Link Aggregation Control Protocol (LACP)
IEEE 802.3x: Flow Control and Back-Pressure
IEEE 1588: Precision Time Protocol (PTP)

Internet Protocol
IPv4 and IPv6

TCP/IP
Application software (SCADA / HMI System)

write to the Modbus registers provided by the Modbus device is a host computer running appropriate through as slave/server device, while a typical master/client

Modbus TCP/IP
IEEE 802.1Q tag VLAN with 256 (Max) VLAN entries

privilege VLAN
information to prioritize industrial network traffic which follows 802.1p COS tag and IPv4 ToS/ diffserv queuing (WRR 8:4:2:1) and strict priority scheme,
Supports 4 physical queues, weighted round robin (WRR 8:4:2:1) and strict priority scheme,
Ingress filtering for broadcast, multicast, unknown DA or all packets, Egress filtering for all packet types

Switch Technology
32Gbps switch fabric, store/forward switch technology, 8K MAC address

System Throughput
26 mega packets/second, 64 byte packet size. 14,880pps (100Mbps); 148,800pps (1000Mbps)

Transfer Packet Size
64 bytes to 1522 bytes (includes 1522 bytes VLAN tag)

Packet Buffer
1MBits shared memory

Traffic Prioritization (QoS)
Supports 4 physical queues, weighted round robin queuing (WRR 8:4:2:1) and strict priority scheme, which follows 802.1p QoS tag and IPv4 ToS/ diffserv information to prioritize industrial network traffic.

VLAN
IEEE 802.1Q tag VLAN with 256 (Max) VLAN entries and 2x GVRP entries, 3 VLAN link modes: trunk, hybrid, and link access

Modbus TCP/IP
Supports Modbus TCP/IP communications with function code 4 for factory automation through the CLI, operates as slave/server device, while a typical master/client device is a host computer running appropriate through Ethernet, thus the Modbus TCP/IP master can read or write to the Modbus registers provided by the Modbus TCP/IP. Application software (SGADA / HMI System)

Performance
Back-Pressure
IEEE 802.3x: 10/100Mbps half-duplex only

Flow Control Pause Frame
IEEE 802.3x: 10/100Mbps full-duplex

IGMP Snooping
V1/V2/V3 for multicast filtering and IGMP query V1/ V2. Supports unknown multicasting, processes forwarding policies: drop, flooding and forward to router port, 256 IGMP multicast groups

IP Security
Assign authorized IP addresses to specific port, 10 max/port

Time Synchronization
Supports IEEE 1588 (precision time protocol), NTP protocol with daylight saving function, and localized time sync function

Port Configuration
Port link speed, link mode, port status, enable/disable

Port Mirroring
Online traffic monitoring on multiple selected ports

Port Security
Assign authorized MAC addresses to specific port, 10 max/port

Port Trunk
IEEE 802.3ad LACP with timer and static port trunk; Trunk member up to 4 ports and maximum 4 trunk groups

Port-Based Network Access Control
IEEE 802.1x, supports user authentication by the RADIUS account, password and key for the RADIUS servers (primary and secondary)

Private VLAN
Direct client ports in isolated/community VLAN to promiscuous port in primary VLAN

Rate Control
Ingress filtering for broadcast, multicast, unknown DA or all packets, Egress filtering for all packet types

Network Redundancy
Redundant Ring Technology

Perform Routing Relay On/Off Function
Multi-Event Relay Feature
Power, Port Link, DI/Ring Status Change, Ping Reset, or Perform Routing Relay On/Off Function

Environmental Specifications
Air Temperature
System On
-40° to 75°C

System Off
-40° to 85°

Electrical Specifications
Device
DC Input Voltage
(Positive or Negative)
10 – 60VDC

Current Consumption (24VDC)
625mA

Power Consumption (Max)
15W

Number of Power Connectors
2

Power Connector Type
4-Pin Screw Terminal Block

Power Input Redundancy
Dual Redundant Inputs

Reverse Polarity Protection
Yes

Digital Input
1 with photo optical isolation Logic Low (0) 0 to 10VDC Logic High (1) 11 to 30VDC

Digital Output (Relay Output)
1

DC Input Voltage
24VDC

Current Consumption (24VDC) 1A Maximum

Multi-Event Relay Feature
Power, Port Link, DI/Ring Status Change, Ping Reset, or Perform Routing Relay On/Off Function

Input Specifications

Network Interface
10/100BASE-TX

Port Configuration
4-pin screw terminal block

Dimensions
4.75” x 5.9” x 2.15”

Product Weight
2 lbs

Power Connector Type
RJ45 (Standard)

Network Interface
10/100BASE-TX, auto MDI/MDIX, auto-negotiation (speed/duplex mode)

Port Configuration
4-pin screw terminal block

Dimensions
121 x 150 x 55 mm

Product Weight
.91 kg