

ROCKETLINX ES8510-XT

Industrial Ethernet Switch

HIGHLIGHTS

- Multiple redundant ring (recovery time <5ms)
- 7 10/100-TX ports and 3 Gigabit RJ-45/SFP combo ports (10/100/1000 Base-TX, 100Base-FX, 1000Base-X)
- 32Gbps non-blocking, 8K MAC address table
- VLAN, GVRP, QoS, IGMP snooping V1/V2/V3, rate control, port trunking, LACP, online multi-port mirroring
- Management viz console CLI , Web, SNMP V1/V2c/V3, RMON, HTTPS, SSH and NetVision
- Advanced security feature supports IP security, port security, DHCP server, IP and MAC binding, 802.1x network access control
- Event notification by e-mail, SNMP trap, syslog, digital input and relay output
- -40° to +85° C operating temperature for extreme environments
- Rigid aluminum IP31 housing, excellent heat dispersion, redundant power, DIN-rail/wall-mount installation



Part Number
32061-6



Extreme Temperature Ratings
-40° to +85°C

Product Description

The RocketLinx ES8510-XT is a managed Industrial Ethernet Switch, equipped with seven 10/100TX ports and three 10/100/1000 RJ-45/100-FX/Gigabit SX/LX combo ports. Two gigabit ports may be used to form a non-stop Redundant Ring while the third gigabit port enables connection to an upper switch, couple ring or public server. The Gigabit combo port design provides flexibility to choose copper or fiber media supporting 100Base-FX or 1000Base-X, Multi-mode or Single-mode for a wide variety of distance and installation requirements.

The RocketLinx ES8510-XT is housed in a rugged aluminum enclosure that features an excellent heat dispersing mechanical design and a wide operating temperature support. The embedded software supports full Layer 2 management features, multi-form ring redundancy, network control, monitoring, security and notification. The RocketLinx ES8510-XT also provides a built-in watchdog timer and digital input and relay output to avoid undetected problems. The RocketLinx ES8510-XT provides the perfect foundation for building your industrial Ethernet infrastructure.

Three Gigabit Ports for Flexible Network Planning

A unique feature to the RocketLinx ES8510-XT is the three Gigabit RJ-45/SFP combo ports, which can improve performance dramatically compared to products with only two Gigabit RJ-45/SFP combos. Each combo comes with a flexible connection -- 100Mbps or 1000Mbps, as well as fiber or copper connection options. All together, as many as 10 different combinations of port connections are possible. By selecting the appropriate fiber transceivers, the RocketLinxES8510-XT can meet your industrial application requirements with virtually any transmission distance.

100/1000Mbps SFP

The RocketLinx ES8510-XT SFP socket supports 100Base-FX single/multi-mode and 1000Base-SX/LX/LHX/XD multi/single mode transceivers. The available distance of the 100Base-FX is up to 30KM. 1000Base-SX multi-mode supports 550M, 1000Base-LX single-mode supports 10KM, 1000Base-LHX single-mode supports 30KM, 1000Base-XD single-mode supports up to 50KM. 1000Base-ZX single-mode supports up to 70KM.

SPECIFICATIONS

HARDWARE

- Bus Interface Specification 10/100/1000BASE-TX; 100BASE-FX; 1000BASE-SX/LX/LHX/XD/ZX Gigabit Fiber
- Enclosure IP-31 Grade Aluminum; Drop-Waterproof and Dustproof DIN-Rail
- Installation Method
- LED Indicators Power 1, Power 2, Ring Master (R.M.); 10/100Base-TX Link/Activity 10/100Base-TX Full Duplex/Collision; Gigabit Copper/SFP Link/Activity; Digital Input 1 & 2, Digital Output 1 & 2
- Dimensions 5.0" x 6.3" x 3.7"
- Product Weight 2.63 lb

TECHNOLOGY

- Standards
 - IEEE 802.3 10Base-T
 - IEEE 802.3u 100Base-TX and 100Base-FX
 - IEEE 802.3ab 1000Base-TX
 - IEEE 802.3z Gigabit Ethernet fiber
 - IEEE802.1D-2004 Rapid Spanning Tree Protocol (RSTP)
 - IEEE802.1Q VLAN Tagging and GVRP
 - IEEE802.1p Class of Service
 - IEEE802.3ad For Port Trunk with Link Aggregation Control Protocol (LACP)
 - IEEE802.1X Port Based Network Access Control
- Flow Control
 - IEEE802.3x Flow Control and Back-Pressure

PERFORMANCE

- Switch Technology 32Gbps Switch Fabric Store and Forward Switch Technology
- System Throughput 14,880pps for 10Mbps; 148,800pps for 100Mbps; 1,488,100 for Gigabit Ethernet
- Number of MAC Address 8K
- Packet Buffer Memory 1Mbits
- Transfer Packet Size 64 bytes to 1522 bytes (with VLAN Tag)
- Priority Queues per Port 4
- Port Trunk (Max) 5 Static Trunk
- VLAN (Max) 64
- DHCP Server Up to 255 IP Addresses

MANAGEMENT FEATURES

- Configuration Cisco-compatible CLI, NetVision Utility, HTTP, HTTPS, SSH, TFTP/Web update for firmware and configuration backup/restore, DHCP Client, warm reboot, reset to default, admin password, port speed/duplex control, status, statistic, MAC address table display, static MAC, aging time, SNMP v1, v2c, v3, traps and RMON1
- SNMP MIB MIB-II, Bridge MIB, VLAN MIB, SNMP MIB, RMON and Private MIB
- Port Trunk Up to 5 static trunk and IEEE802.3ad LACP
- VLAN IEEE802.1Q VLAN, GVRP. Up to 64 VLAN groups
- Quality of Service (QoS) Four priority queues per port, IEEE802.1p COS and Layer 3 TOS/DiffServ
- IGMP Snooping IGMP Snooping V1/V2/V3 for multicast filtering and IGMP Query V1/V2
- Rate Control Ingress filtering for broadcast, multicast, unknown DA or all packets, and egress filtering for all packets
- NTP Network Time Protocol to synchronize time from Internet or local PC
- Embedded Watchdog Embedded hardware watchdog timer to auto reset system when switch system failure
- Port Mirroring Online traffic monitoring on multiple selected ports
- Port Security Assign authorized MAC to specific port

- IP Security IP security to prevent unauthorized access
- 802.1x Port-based network access control
- DHCP Server Up to 255 IP address, support IP and MAC binding
- E-mail Warning Automatic warning by pre-defined events
- System Log Supports both local mode and server mode

NETWORK REDUNDANCY

- Rapid Spanning Tree Protocol IEEE802.1D-2004 rapid spanning tree protocol (RSTP) Compatible with Legacy STP and IEEE802.1w
- Redundant Ring Technology Failure recovery within 5ms.
- Rapid Dual Homing (RDHTM) Multiple uplink paths to upper switches
- MultiRing Multiple rapid super rings

ELECTRICAL SPECIFICATIONS

- Device
 - DC Input Voltage 12-48 VDC
 - Current Consumption +24VDC 0.8A
 - Power Consumption (Max) 20W
 - Power Connector 1
 - Power Connector Type 4-Pin Screw Terminal Block Dual Redundant Independent Power Inputs
- Power Input Redundancy Yes
- Reverse Polarity Protection Alarm for power failure notification
- Power Alarm Relay 1A Max @ 24VDC
- Relay Rating 1A Max @ 24VDC

ENVIRONMENTAL

- Air Temperature
 - System On -40° to 85° C
 - System Off -40° to 85° C
- Operating Humidity Non-condensing 5% to 95%
- MTBF (Mean Time Between Failures) 28.53 years

ETHERNET SPECIFICATIONS

- Connector Type RJ-45
- Number of Port 10
- Ethernet Cable Type CAT-3, CAT-4, CAT-5, CAT-5e (UTP or STP)
- Standard for RJ45 Ports (7) 10/100BASE-TX Auto MDI/MDI-X, Auto Negotiation (3) 10/100/1000Base-TX, Combo with SFP 1000Base-SX/LX/LHX/XD/ZX Gigabit Fiber 100Base-FX
- Standard for Optional SFP Alarm Relay for Port Failure Notification
- Port Alarm Relay 1A Max. @ 24VDC
- Relay Rating 1A Max. @ 24VDC

SERIAL CONSOLE PORT SPECIFICATION

- Connector Type RJ-45
- Number of Port 1
- Serial Interface RS-232 (TXD, RXD, Signal GND)
- Baud Rate 9600Bps
- Device Data Control
 - Data Bits 8
 - Parity None
 - Stop Bits 1
 - Flow Control None

DIGITAL INPUT SPECIFICATION

- Connector Type 4-PIN Screw Terminal Block
- Number of Inputs 2 Sets
- Voltage Levels
 - Logic Low (0) 0 to 10VDC
 - Logic High (1) 11 to 30VDC

DIGITAL OUTPUT SPECIFICATION

- Connector Type 4-PIN Screw Terminal Block
- Number of Outputs 2 Sets of Relay Outputs
- Output Relay Rating 1A Max. @ 24VDC

EXPORT INFORMATION

- Packaged Shipping Weight 3.9 lbs
- Package Dimensions 11.3" x 5.5" x 9.1"
- UPC Code 7-56727-32060-9
- ECCN 5A991
- Schedule B Number 8517.62.0050

REGULATORY APPROVALS

- Emissions
 - European Standard EN55022
 - CISPR 22
 - FCC Part 15 Subpart B
 - Class B limit
- Immunity
 - European Standard EN55024
 - IEC 1000-4-2/EN61000-4-2: ESD
 - IEC 1000-4-3/EN61000-4-3: RF
 - IEC 1000-4-4/EN61000-4-4: Fast Transient
 - IEC 1000-4-5/EN61000-4-5: Surge
 - IEC 1000-4-6/EN61000-4-6: Conducted Disturbance
 - IEC 1000-4-8/EN61000-4-8: Magnetic Field
 - IEC 1000-4-11/EN61000-4-11: Dips and Voltage Variations
- Safety
 - IEC 60950/EN60950 (LISTED)
 - CSA C22.2 No. 60950/UL60950 Third Edition
- Other
 - European Standard: 2002/95/EC Directive (RoHS)
- Regulatory Approvals
 - RoHS 2002/95/EC
 - CE
 - FCC
 - UL/cUL



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ORDERING INFORMATION

32061-6 RocketLinX ES8510-XT

RECOMMENDED ACCESSORIES

32101-9 Power Supply PS1060 Universal (24V, 60W, Din Rail)

32102-6 Power Supply PS1100 Universal (24V, 100W, Din Rail)

PRODUCT SUPPORT & SERVICE INFORMATION

Warranty Information

Comtrol offers a 30-day satisfaction guarantee and 5-year limited warranty.

Sales Support

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Technical Support

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