RocketLinx® ES7510-XT
Part Number: 32046-3

KEY FEATURES AND BENEFITS
• Integrate IP cameras, access points and other PoE devices
• Eight 10/100BASE-TX PoE Plus ports and two Gigabit RJ45/SFP combo ports featuring Digital Diagnostic Monitoring (DDM)
• PoE ports support both IEEE 802.3af (15.4W) and the latest high power IEEE 802.3at standards (30W)
• Easy setup and administration via Netvision application, web page or Cisco-like command line interfaces
• Advanced redundant ring support with 5ms recovery time, for up to 4 x 100M rings plus two Gigabit uplink rings
• Advanced security features include Port Security, Access IP List, HTTPS and SSH login
• SNMP and IEEE 802.1AB LLDP for network management
• Tag-VLAN supporting multiple VLAN traffic isolation
• LACP port trunking for bandwidth aggregation to support video surveillance
• Redundant DC power inputs and multiple event relay output for advanced device alarm control
• Extended operating temperature -40° to 75°C
• NEMA TS2 certified
• RoHS2 compliant under CE
• IPv6 support

PRODUCT DESCRIPTION
PoE Plus Supporting High Power Devices
The Comtrol RocketLinx ES7510-XT managed industrial PoE Plus switch is designed to meet the high power and advanced management needs of critical traffic applications such as real-time IP video surveillance and wireless communication utilizing outdoor rated IP cameras and high power IEEE 802.11 access points. Featuring a rugged design for harsh environments, intuitive web, CLI SNMP management options, power scheduling and eight fully compliant IEEE 802.3at PoE injector ports, the ES7510-XT is easily installed in industrial settings and traffic cabinets supporting even the most power intensive devices such as IP cameras with heaters and pan/tilt/zoom controls.

Innovative Power Control
In addition to functioning as a PoE power source, the ES7510-XT includes advanced device controls, ensuring that power consumption does not exceed parameters defined by the user. This includes power budget control functions to limit power output on devices not reporting correct consumption rates and device priority options to guarantee power to critical devices while avoiding power supply overloads.

Management and Security
The RocketLinx ES7510-XT is equipped with full Layer 2+ management capabilities to provide the most flexible network configuration and control. Features like Link Aggregation Control Protocol allow grouping of multiple ports to enhance bandwidth and provide load balancing while Port-Based VLAN, QoS, IGMP Snooping, and Rate Control features enable optimum control over the network environment. In addition to the full array of management capabilities, the ES7510-XT also supports the most advanced security features to protect the network and guarantee secure, reliable data transmission. Fault relay and e-mail notification of event alarms, DHCP supporting IP and MAC binding, IEEE 802.1X network access control, SSH, and many other controls are included to make secure administration and management a simple task.
## ROCKETLINX SPECIFICATIONS

### HARDWARE

**Network Interface**
- 10/100BASE-TX PoE Plus
- 10/100/1000BASE-TX
- 10BASE-FX, 100BASE-SX/LX/HX/XD/ZX Gigabit Fiber

**Connector Type**
- RJ45 - Two - RJ45/SFP Combo

**Enclosure**
- IP30 Grade Steel Metal Case with Aluminum panel housing for heat dissipation

**Installation Method**
- DIN rail, Wall or panel mount

**LED Indicators**
- Power
- 1/2
- System Status
- Ring Status
- Gigabit Port Link/Activity
- PoE Status

**Digital Input (DI)/Digital Output (DO)**
- 4-pin screw terminal block with one DI and one DO (Dry Relay Output)

**Serial Console Port**
- One RJ45 RS-232 (TXD, RXD, Signal GND), Baud Rate: 9600bps, Data Bits: 8, Parity: None, Stop Bits: 1, Flow Control: None

**Thermal Monitoring**
- Embedded board-level thermal detector for main-chip and software monitoring

**Dimensions**
- 5.6 x 6.3 x 3.7
- 12.7 x 16 x 9.4 cm

**Weight**
- 1.85 lbs
- 1.29 kg

### ETHERNET SPECIFICATIONS

**Number of Ports**
- Ten: 8 + 2 - RJ45 and 2 - RJ45 SFP combo Gigabit uplink

**RJ45**
- 8 RJ45: 10/100BASE-TX PoE Plus
- 2 RJ45: 10/100/1000BASE-TX

**SFP DDM (Optional)**
- 100BASE-FX Fiber, 100BASE-SX/LX/HX/XD/ZX
- Auto MDI/MDIX, Auto-Negotiation (Speed/Duplex Mode)

**Cable Types**
- Cat 3, 4, Cat 5, Cat 5e, Cat 6, Cat 6 UTP or STP

**Link Distances**
- 100 meters

**Product Weight**
- 1.29 kg

### POE FEATURES

**PoE Modes**
- 802.3af
- 802.3at

**Power, Port Link, Ring Status Change, Ping, Ping Reset, Multi-Event Relay Feature**
- Yes

### MANAGEMENT FEATURES

**Configuration and Monitoring**
- Out-of-Band Management: Console Port with Command Line Interface (CLI) - Similar to Cisco CLI In-Band Management: Web Interface (HTTP/HTTPS) or a Telnet/SSH console with CLI

**Embedded Watchdog**
- Embedded hardware watchdog timer automatically resets system if switch system failure occurs

**System Upgrade/Backup**
- Provides TFTP/Web interface for firmware upgrade and configuration backup/restore

**SNMP**
- V1, V2c, V3 with SNMP trap function, up to four trap receivers

### NETWORK PERFORMANCE

**Back-Pressure**
- IEEE 802.3x Half-Duplex only

**Flow Control**
- IEEE 802.3x Full Duplex

**GMARP**
- GARP Multicast Registration Protocol

**IGMP Snooping**
- V1/V2/V3 for multicast filtering and IGMP Query V1/V2;
- Supports unknown multicasting, Processing forwarding, Snooping, and forwarding to router port

**IP Security**
- Assign authorized IP addresses to specific port, 10 Max/Port

**Flow Protection**
- Provides Layer 2 loop prevention through the STP, RSTP, and MSTP.
- Flow protection increases the efficiency of STP, RSTP, and MSTP by preventing ports from moving into a forwarding state that would result in a loop in the network

**Modbus TCP/IP**
- CLI support for Modbus TCP/IP communications with Function Code 4 (factory automation).
- Operates as slave/server device, while a typical master/client device is a host computer running appropriate through Ethernet. The Modbus TCP/IP master can read or write to the Modbus registers provided by the Modbus TCP/IP application software (SCADA/HMI system)

**Packet Buffer Memory**
- 1MBs

### EMBEDDED HARDWARE

**Power Budget Warning Level**
- 120W at 75ºC

### ENVIRONMENTAL SPECIFICATIONS

**Air Temperature**
- -40º to 75ºC

**Humidity**
- Operating: 9% to 90%

**MTBF**
- (Mean time between failures) 50.9 years

### ELECTRICAL SPECIFICATIONS

**Device Power Input Voltage (DC/DC)**
- 80.3af
- 48VDC (48-57VDC)

**Power Consumption**
- Without POE Load (Max.)
- 15W

**Power Connector Type**
- One 4-pin terminal block for DC/12

**Power Input Redundancy**
- Dual Redundant Inputs

**PSU Type**
- Passive

**Immunity**
- EMI: 40 to 80 V/m

**MTBF (Mean time between failures)**
- 50.9 years

### REGULATORY APPROVALS

**Immunity**
- European Standard EN55022

**Safety**
- IEC 61373

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

**Support Contact**
- sales@comtrol.com

**Website**
- www.comtrol.com/support

**Product Number**
- 9600bps, Data Bits: 8, Parity: None, Stop Bits: 1, Flow Control: None

**Budget, power budget mode (auto/manual), and schedule-based PoE functions**

**System Status**
- DI and DO Status

**Switch Technology**
- IEEE 802.1AB: Link Layer Discovery Protocol (LLDP)

**Egress filtering for all packet types.**

**Rate Control**
- Private VLAN

**Supports IEEE 1588, NTP protocol with daylight saving time function**

**Prioritization (QoS)**
- 802.1p COS tag and IP/IPv4 TOS/Diffserv information to prioritize industrial network traffic

**VLAN**
- IEEE 802.1q tag VLAN with 256 (max) VLAN entries and 2K GFPv3 entries; 3 VLAN link modes; trunk, hybrid, and link access; IEEE 802.1Q vQ-tagging options for implementing multi-vendor network topologies.

**Network Redundancy**

**Rapid Spanning Tree Protocol**
- IEEE 802.1s for IEEE 802.1D-2004 Rapid Spanning Tree Protocol (RSTP)

**Multiple Spanning Tree**
- Multiple Spanning Tree Protocol (MSTP) with multiple VLAN trees per MSTP instance can include one or more VLANs.

**Reducing Ring Technology**
- Failure recovery within 5ms - Rapid Dual Homing:
- Multiple uplink paths to upper switches - Ring Trunking:
- Integrates port aggregate function in ring path to get higher throughput ring architecture - Multiple Ring:
- Current or multiple of up to 4 100M rings and up to 2 Gigabit rings in one switch

**Environmental Specifications**

**Air Temperature**
- -40 to 75ºC

**Humidity**
- Operating: 9% to 90%

**MTBF**
- (Mean time between failures) 50.9 years

**Safety**
- CE, FCC, and UL listed

**Regulatory Approvals**
- European Standard EN55022

**Safety**
- IEC 61373

**Environmental Compliance**
- RoHS compliant under CE and NEMA TS2 compliant

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