ROCKETLINX ES7510

Industrial 10-Port Gigabit Managed PoE Plus Switch

HIGHLIGHTS

- Eight 10/100BASE-TX PoE Plus ports and two Gigabit uplink ports
- PoE ports support both 15.4W IEEE 802.3af and the latest 30W high power IEEE 802.3at standards
- Total power budget is 200W with maximum 30W per port
- Advanced redundant ring support with 5ms recovery time, for up to 4 x 100M Rings plus one Gigabit Ring
- 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 alarm relay output
- AC 1.5KV Hi-Pot isolation protection for ports and power
- Wide operating temperature -40° to 70°C (in IEEE 802.3af mode)

Part Number
32035-7

Product Description

PoE Plus Supporting High Power Devices

The Comtrol RocketLinx ES7510 managed industrial PoE Plus switch is designed to meet the high power and advanced management needs of critical PoE applications such as real-time IP video surveillance and wireless communication utilizing Wimax and 802.11 a/b/g/n 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 is easily configured to deliver up to 30W for even the most power intensive devices such as IP cameras utilizing heaters and pan/tilt/zoom controls.

Innovative Power Control

In addition to functioning as a PoE power source, the ES7510 includes features to enhance control of devices, 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 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 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 Access Control, SSH, and many other controls are included to make secure administration and management a simple task.

COMTROL®

SPECIFICATIONS

HARDWARE

Bus Interface Specification 10/100/1000BASE-TX
Enclosure IP31 Grade Aluminum
Installation Method DIN rail or Panel Mount
LED Indicators
Power, System Status, Ring Status, Alarm, Ethernet port Link/Activity, PoE Status, Gigabit port Link/Activity
Dimensions 7.3" x 2.6" x 6.25"
Product Weight 2.75 lbs

ETHERNET SPECIFICATIONS

Connector Type RJ45
Number of Ports
8 x 10/100BASE-TX with PoE Injector
2 x 10/100/1000BASE-TX
PoE Output Pin-out – RJ45 Pins 1, 2 – V+
Pins 3, 6 – V-
Link Distance 100 meters
Port Alarm Relay
Alarm Relay for Port Failure Notification
Relay Rating 1A Max. @ 24VDC
SFP Slots
1000BASE-SX/LX/LHX/XD/ZX Gigabit Fiber
100BASE-FX
Standards

IEEE 802.af	PoE
IEEE 802.at	LLDP PoE Plus
IEEE 802.3	10BASE-T
IEEE 802.3u	100BASE-TX
IEEE 802.3ab	1000BASE-TX
IEEE 802.1Q	VLAN
IEEE 802.1p	Class of Service
IEEE 802.1D-2004	RSTP
IEEE 802.3ad	LACP
IEEE 802.3x	Flow Control and Back Pressure
IEEE 802.1x	Port Based Network Access Control
IEEE 802.1ab	LLDP

Protocols
IGMP Snooping v1/v2/v3, IGMP Query, SNMP v1/v2c/v3, SNMP MIB, NetVision Utility, IP Security, NTP, HTTP, HTTPS, GVRP, DHCP Server/ Client, DHCP Option 82, LACP, CoS, RSTP, RMON, LLDP, LACP, Syslog

PERFORMANCE

Switch Technology
32 Gbps Switch Fabric
Store and Forward Switch Technology
PoE Technology
Endspan wiring architecture
System Throughput
14,880pps for 10Mbps; 148,880pps for 100Mbps; 1,488,100 for Gigabit Ethernet
Number of MAC Address 8K
Packet Buffer Memory 1Mbits
Transfer performance 64 to 1632Bytes (includes VLAN Tag)
Priority Queues per Port 4
Port Trunk (Max) 4 Trunk Groups
Ports per Trunk (Max) 6 Ports
VLAN Groups (Max) 64

MANAGEMENT FEATURES

Configuration and Monitoring Interfaces
CLI with commands similar to Cisco, Telnet, NetVision Utility, Web browser interface, TFTP/Web Update for firmware and configuration backup/restore, DHCP client, Reset to factory default, Admin password, Port speed/Duplex Control, status, statistic, MAC Address table display, Static MAC, Aging time, SNMP V1/V2C/V3, Traps, LLDP, and RMON groups 1, 2, 3, 9
Telnet and Serial Console
CLI with commands similar to Cisco; SSH support for Telnet
Maximum CLI Sessions 4
Port Configuration
Port link speed/mode, status, enable/disable
Port Mirroring
Online traffic monitoring on multiple selected ports
Port Trunk
Static Trunk and IEEE 802.3ad LACP
Up to 4 trap stations
SNMP
SNMP v1/v2c/v3 Traps
Up to 4 trap stations
Manual confi guration of the trap server IP address
SNMP MIB
MIB-II, Bridge MIB, Ethernet-Like MIB, VLAN MIB, IGMP MIB, Private MIB
IGMP Snooping
IGMP Snooping v1/v2c/v3 for multi-cast fi ltering and IGMP query mode
VLAN
IEEE802.1Q VLAN with GVRP
Up to 64 VLAN groups
Class of Service (CoS)
4 Priority Queues/ Port
IEEE 802.1p CoS tag and IPv4 TOS/DiffServ based prioritization
Rate Control
Ingress/Egress Filtering for Broadcast, Multicast, Unknown DA or all packets
Network Time Protocol (NTP) Yes
Port Security
Assign authorized MAC to specific port
IP Security
IP Security to prevent unauthorized access
802.1x
Port based Network Access Control
DHCP
DHCP Client/Server and DHCP Relay (Option 82)
Firmware Upgrade TFTP and NetVision
Alarm
Automated warning by pre-defined events
Event Alarm Relay
System event, Port Event, PoE Event
E-mail Warning
Up to 4 receipt e-mail accounts
System Log
Yes, Local or remote server with authentication

PoE FEATURES

PoE Modes
IEEE 802.3af; IEEE 802.3at; Forced
PSE Type
IEEE 802.3at Type 2; Alternative A
Number of PoE Injector Ports 8
Maximum Power/ PoE Port (Max.)
15.4W (IEEE 802.3af); 30W (IEEE 802.3at)
Total Power Budget (Max.) 200W
Standard PoE Voltage Output Yes
IEEE 802.3af compliant – 44-57VDC
IEEE 802.3at compliant – 50-57VDC
PoE Control
User-configuration for PoE enable, disable, or schedule-based PoE function
Power Budget Control
User-configurable power budget limit
Smart PoE Powered Device Alive-Check
Real-time status monitor of PoE PD. Option to reset PoE PD
Real-time PoE Status on Web Interface Yes
Power Limit Control Yes
PoE Schedule Control
PoE ports are configurable as on/off by hourly/weekly basis

NETWORK REDUNDANCY

Rapid Spanning Tree Protocol (RSTP)
IEEE 802.1D-2004 RSTP
Compatible with STP and IEEE802.1w
Multiple Super Ring
Rapid Super Ring; Rapid Dual Homing; Multi-Ring; Trunk Ring
Rapid Super Ring (RSR)
Yes, Failure recovery within less than 5ms
Rapid Dual Homing
Yes, Multiple uplink paths to one or multiple upper switch

ELECTRICAL SPECIFICATIONS

Device Power Input Voltage

DC1/DC2	
IEEE 802.3af	48VDC (46-57VDC)
IEEE 802.3at	53VDC (50-57VDC)

Device Power Consumption

Without PD Load (max.)	28W
IEEE 802.3af Mode (max.)	144W
IEEE 802.3at Mode (max.)	262W

Power Connector Type
(1) 6-Pin Screw Terminal Block
Power Input Redundancy Yes
Reverse Polarity Protection Yes
Power Alarm Relay
Alarm for power failure notification
Relay Rating 1A Max. @ 24VDC

ENVIRONMENTAL SPECIFICATIONS

Air Temperature

System On	
802.3af (15.4W x 8 Ports)	-40° to +70° C
802.3at (30W x 8 Ports)	-40° to +70° C
System Off	-40° to +85° C

MTBF (Mean Time Between Failures) 37.5 years
Operating Humidity (Non-Condensing) 0% to 90%

SERIAL CONSOLE PORT SPECIFICATION

Connector Type RJ45
Number of Ports 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

EXPORT INFORMATION

Packaged Shipping Weight 4.2 lbs
Package Dimensions 11.3" x 5.5" x 9.1"
UPC Code 7-56727-32065-4
ECCN 5A991
Schedule B Number 8517.62.0050

REGULATORY APPROVALS

Emissions
Canadian EMC Requirements
ICES-003
European Standard EN55022
CISPR 22
FCC Part 15 Subpart B
Class A 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/Burst
IEC 1000-4-5/EN61000-4-5: Surge
IEC 1000-4-6/EN61000-4-6: Conducted Disturbance
IEC 1000-4-6/EN61000-4-8: Magnetic Field
IEC 1000-4-6/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)
NEMA TS2 Compliant

Regulatory Approvals

ORDERING INFORMATION

32035-7 RocketLinx ES7510

RECOMMENDED ACCESSORIES

1200048 48VDC External Power Supply Adapter
1200054 Power over Ethernet Splitter (24VDC, 24 Watts)

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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