COMTROL®

RocketLinx® ES7528

Part Number: 32040-1

PoE SWITCH

KEY FEATURES AND BENEFITS::

- 24 10/100BASE-TX, four Gigabit uplink/four SFP ports
- 24-ports support both 15.4W IEEE 802.3af and 30W high power IEEE 802.3at, including 2-event and LLDP classification
- IEEE 802.3at and IEEE 802.3af with max. 30W per port
- LLDP for reliable PoE connection through Active Powered Device status detection and auto reset function
- Total PoE power budget of up to 720 watts
- Flexible-bandwidth and long-distance fiber data transmission via SFP transceivers
- 12.8G Non-Blocking backplane and 16K MAC table
- IEEE 1588 PTP compliance for precise time synchronization
- Advanced Redundant ring capabilities for aggregating up to 12 x 100Mb rings plus 2 Gigabit rings
- Supports up to 9,216 bytes Jumbo Frame for large file transmission
- Optimized IGMP Query v1/v2 and IGMP Snooping v1/v2/v3 for advanced multicast filtering
- Supports up to 255 VLANs for traffic isolation
- Advanced network management features including SNMP
- Supports DHCP client/server and DHCP Option 82 for automatic IP configuration
- Dual redundant AC and DC power input voltage range: 48VDC (46-57VDC) and 100-250VAC, 47-63Hz, 4A
- RoHS2 compliant under CE
- IP31 rugged aluminum case with superior heat dispersal
- IPv6 support

PRODUCT DESCRIPTION::

The RocketLinx ES7528 is a fully 802.3at compliant PoE Plus rack mount switch that features 24 10/100BASE-TX Ethernet ports and four Gigabit Uplink/SFP Combo ports. This switch is designed for highly critical PoE applications such as real time IP video surveillance and wireless communications systems.

All of the fast Ethernet PoE injector ports can deliver 15.4W by IEEE 802.3af or 30W by the latest high power PoE IEEE 802.3at standard. This flexibility makes the ES7528 the perfect solution for upgrading existing video network infrastructures to a powerful IP video surveillance network.

The 4 Gigabit Ethernet ports provide high speed uplinks to higher level backbone switches while advanced ring technology enables the ES7528 to aggregate up to 12 fast Ethernet rings and two gigabit rings providing high quality data transmission with less than 5ms network recovery time. To ensure traffic switching without data loss and blocking, the ES7528 provides a 12.8G backplane with integrated non-blocking switching function.

With advanced Layer2 management features including IGMP Query/ Snooping, DHCP, 255 VLAN, QoS, LACP, LPLD, and 24 PoE Plus ports, the RocketLinx ES7528 stands out from other PoE switches as the optimal solution for high density PoE and video surveillance applications.

PoE POWER OVER ETHERNET

PORTVISION MANAGEMENT SOFTWARE

ROCKETLINX SPECIFICATIONS::

HARDWARE

Bus Interface Specification
10/100/1000BASE-TX, 1000BASE-SX/LX/LHX/XD/ZX Gigabit Fiber
Enclosure Black Finished Steel
Installation Method 19-inch, 1U Rack Mount
LED Indicators
Ring Status, DC Power, PSU Status, System Status, Alarm, Ethernet port Link/Activity Status, PoE Status
Dimensions 17" x 14.8" x 1.7"
43.18 x 37.59 x 4.32 cm
Product Weight 13.10 lbs
5.94 kg

TECHNOLOGY

Standard
IEEE802.3af Power Over Ethernet (PoE)
IEEE802.3at Power Over Ethernet Plus (PoE Plus)
IEEE802.3 for 10BASE-T
IEEE802.3u for 100Base-TX
IEEE802.3ab for 1000Base-TX
IEEE802.3z Gigabit Ethernet Fiber
IEEE802.1Q VLAN
IEEE802.1P GMRP
IEEE802.1p Class of Service
IEEE802.1d Spanning Tree Protocol (STP)
IEEE802.1D-2004 Rapid Spanning Tree Protocol (RSTP)
IEEE802.3ad for Port Trunk with Link Aggregation Control Protocol (LACP)
IEEE802.1x Port Based Network Access Control
IEEE802.1AB Link Layer Discovery Protocol
IEEE1588 Precision Time Protocol
Internet Protocol
IPv4 and IPv6
Protocols
IGMP Snooping v1/v2/v3, IGMP Query v1/v2, SNMP v1/v2c/v3, SNMP MIB, NTP, HTTP, HTTPS, SSL, SSH, GMRP, GVRP, IEEE1588 PTP, DHCP Server/ Client, DHCP Option 82, Syslog, RMON, LACP, RSTP, STP, LLDP
Flow Control
IEEE802.3x Flow Control and Back-Pressure

PERFORMANCE

Switch Technology 12.8Gbps Switch Fabric
Store and Forward Switch Technology
PoE Technology: Endspan wiring architecture
IEEE802.3af Compliant
IEEE802.3at Compliant – 2-event and LLDP Classification
System Throughput
14,880pps for 10Mbps; 148,880pps for 100Mbps; 1,488,100 for Gigabit Ethernet
Number of MAC Address 16K
Packet Buffer Memory 32Mbits
Transfer Packet Size 64 – 1536 Bytes
Jumbo Frame Size Up to 9216 Bytes
Priority Queues per Port 8
Port Trunk (Max) 8 Trunk Groups
Ports per Trunk (Max) 8 Ports
VLAN (Max) 256

PoE FEATURES

Standards
IEEE802.3af Power Over Ethernet (PoE)
IEEE802.3at Power Over Ethernet Plus (PoE Plus)
PoE Mode Alternate A
Number of PoE Injector Ports 24
Maximum Power/ PoE Port (Max.)
15.4W (IEEE802.3af mode)
32W (IEEE802.3at mode)
Total Power Budget (Min.) Up to 568W
Total Power Budget (Max.) Up to 720W
Standard PoE Voltage Output Yes.
IEEE802.3af compliant 44-57VDC
IEEE802.3at compliant 50-57VDC
Non-Standard PoE Voltage Output 24VDC
PoE Control
User-configuration for PoE enable, disable, or schedule-based PoE function
Smart Powered Device Alive-Check
User-configuration to monitor real-time status of connected PD's. PoE port is reset to bring a PD back to working state, if connected PD fails
Real-time Status on Web Interface
Real-time status on port status, PoE status, PD Status
Forced Powering
Advanced feature to supply power to non-standard PoE devices that can't be detected as valid PD's
Power Limit Control
Standard mode for IEEE802.3af PD Manual mode for user-configuration of power limit to IEEE802.3af standard PD Ultra mode for user-configuration to perform at the 30W power imitation or forced powering mode for non-standard PD PoE
Schedule Control
PoE ports are configurable as on/off by hourly/weekly basis. Each PoE port can be scheduled to activate/deactivate PoE power with different rule using web interface.
PoE Protection
Over-temperature, over-current, over/under voltage, and transient protection

MANAGEMENT FEATURES

Configuration
Web (http and https), SSH, Telnet, SNMP, and console port. Command Line Interface similar to Cisco. NetVision for Windows for RocketLinx discovery, easy IP configuration, and uploading firmware
Link Layer Discovery Protocol (LLDP)
LLDP to advertise system/port identity and local network's capability
SNMP SNMP v1/v2c Traps
SNMP MIB
MIB-II, Bridge MIB, Ethernet-Like MIB, VLAN MIB, SNMP MIB, PoE MIB, RMON, LLDP MIB, Trap MIB, Private MIB
Port Mirroring
Online traffic monitoring on multiple selected ports
Port Security
Assign authorized MAC to specific port
Port Trunk
Static Trunk and IEEE802.3ad LACP Up to 8 Trunk Group, 8-ports per Trunk
VLAN
IEEE802.1Q VLAN, GVRP Up to 256 VLANs
Quality of Service (QoS)
8 Priority Queues/ Port IEEE802.1p Class of Service and Layer 3 TOS/DiffServ
Rate Control
Ingress Filtering for Broadcast, Multicast, Unknown DA or all packets, step by 64Kbps
IGMP Snooping
IGMP Snooping V1/V2/V3 for multicast filtering IGMP Query v1/v2
GMRP
GARP Multicast Registration Protocol
IEEE 1588 PTP
Precision Time Protocol for precise time synchronization of networks
IP Security
IP Security to prevent unauthorized access
Access Control List L2 - L4 Access Control Lists
802.1x
Port based Network Access Control
DHCP
DHCP Client/Server and DHCP Option 82
Firmware Upgrade TFTP and NetVision
Alarm
Automated warning by pre-defined events
Event Alarm Relay
System event, Port Event, PoE Event
Jumbo Frame Enable/Disable Yes. Up to 9216 Bytes

NETWORK REDUNDANCY

Rapid Spanning Tree Protocol (RSTP)
IEEE802.1D-2004 RSTP, Compatible with STP
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
LPLD
Auto-detect Powered Device status for device auto-reset
PoE Schedule Management
Activation and power scheduling option per PoE port basis
Weekly schedule on hourly basis is supported
Advanced PoE Management
Port status monitoring, Emergency power management, voltage/current monitoring and regulation

ELECTRICAL SPECIFICATIONS

Power Input Voltage DC1/DC2
802.3af 48VDC (46-57VDC)
802.3at 53VDC (52-57VDC)
Aggregation Mode 53VDC
(AC + DC1/DC2 Aggregated) 8.2A (Max.)
Aggregation Mode
(DC1 + DC2 Aggregated) DC1 = DC2
PSU/AC Power 100-250VAC, 47-63Hz, 4A
Power Consumption (maximum)
28 Watts (without PD Load)
Power Budget
DC1 400-Watts
DC2 400-Watts
PSU/AC Power 300-Watts
Power Connector 2
Power Connector Type
(1) 4-Pin Screw Terminal Block
(1) IEC320-C14 AC Power Connector
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 -25 to 65°C
System Off -40 to 85°C
Operating Humidity (non-condensing) 5% to 95%
MTBF (Mean Time Between Failures) 22.83 Years

ETHERNET SPECIFICATIONS

Connector Type RJ-45
Number of Ports
24 x 10/100Base-TX with PoE Injector
4 x 10/100/1000Base-TX
Standard for RJ45 Ports
(24) 10/100BASE-TX Auto MDI/MDI-X, Auto negotiation
(4) 10/100/1000Base-TX, Combo with SFP
Standard for Optional SFP
(4) 1000Base-SX/LX/LHX/XD/ZX Gigabit Fiber
Ethernet Cable Type
CAT-3, CAT-4, CAT-5, CAT-5e, CAT-6 (UTP or STP)
Link Distance 100 Meters
Port Alarm Relay
Alarm Relay for Port Failure Notification
Relay Rating 1A Max. @ 24VDC

SERIAL CONSOLE PORT SPECIFICATION

Connector Type DB9 Male
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 16.60 lbs
7.53 kg
Package Dimensions 24" x 4.4"x 18.4"
60.96 x 11.18 x 46.74 cm
UPC Code 7-56727-32040-1
ECCN 5A992
Schedule B Number 8517.62.0050

REGULATORY APPROVALS

Emissions
Canadian EMC Requirements
ICES-003
European Standard EN55022
FCC Part 15 Subpart B
Class A limit
AS/NZS CISPR 22
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 1000-4-8/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
Vibration IEC 60068-2-6
Shock IEC 60068-2-27
Free Fall IEC 60068-2-32
Other
RoHS2 compliant under CE
Regulatory Approvals

RECOMMENDED PRODUCTS::

1200048 48VDC External Power Supply Adapter

1200059 SFP, Multi-Mode, 550M 1000BASE-GSX (Extended Temperature)

1200060 SFP, Single-Mode, 10KM 1000BASE-GLX (Extended Temperature)

1200054 Power over Ethernet Splitter (24VDC, 24W)

COMTROL®

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

Sales Support
+1.763.957.6000
sales@comtrol.com

Technical Support
+1.763.957.6000
www.comtrol.com/support

Email, FTP, and Web Support
info@comtrol.com
ftp.comtrol.com
www.comtrol.com