



RocketLinx® ES7528

Part Number: 32040-1



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

PoE SWITCH

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.



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 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)

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 enable 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 limitation 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

LPDL

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

(AC + DC1/DC2 Aggregated)
 53VDC
 8.2A (Max.)

Aggregation Mode

(DC1 + DC2 Aggregated)
 DC1 = DC2
 100-250VAC, 47-63Hz, 4A

PSU/AC Power

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)



Warranty Information

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

Sales Support

+1.7