

RocketLinx® ES7506

Part Number: 32050-0



KEY FEATURES AND BENEFITS

- Four 10/100BASE-TX Power over Ethernet ports and two redundant 10/100BASE-TX uplink ports
- DC 48V power input for IEEE 802.3af PoE output (IEEE 802.3af)
- Up to 30W per port for PoE high power applications with DC 55V power input
- Power input for 24VDC output through Ethernet (non-standard PoE)
- Up to 100W for total power budget
- Support IEEE 802.3af for PoE detection and PoE classification resistors
- PoE control and schedule by hour/weekly basis
- Auto-detect powered device status for device auto-reset (LPLD)
- Redundant Ring technology, back up system recovery time less than 5ms
- SNMP v1/v2c/v3, IGMP snooping v1/v2/v3, RMON, VLAN, QoS
- Network security by IP/MAC address, SSL and SSH
- Built-in hardware watchdog timer for system auto-reset
- Aluminum rugged enclosure with IP31 grade protection
- Forced mode powering
- RoHS2 compliant under CE
- Wide operating temperature range (-25° to 60° C)

PRODUCT DESCRIPTION

Control's RocketLinx ES7506 PoE high power switch is designed for industrial PoE applications such as IP surveillance or wireless access points, where the power source is not conveniently located.

The RocketLinx ES7506 supports intelligent PoE control and schedule management. Each of the four PoE Plus ports can be configured in a weekly schedule by hourly basis and PoE on/off can be remotely controlled via SNMP and Web.

It is compliant to the IEEE 802.3af PoE standard and supports 30W power delivery designed for boosting PoE to 30W in each of the four PoE ports. The RocketLinx ES7506 can auto-detect 24V and 48V power input and can deliver 24V and 48V PoE outputs which allow more applications where 48VDC is not an option.

The two uplink ports can be configured as Redundant Ring ports recovering network failure in less than 5ms, or RSTP ports integrating with other standard switches. Full network management features such as SNMP v3, QoS, IGMP v3 are all supported. If the powered device fails to respond after a pre-configured time interval, the product will reboot the powered device and continue to monitor the powered device in every pre-configured time interval. Also, unmanageable powered devices can be managed through the RocketLinx switch.

The IP31 rigid aluminum flat casing and wide operation temperature range ensure reliable operation in places such as mass transit vehicles or outdoor usage.

ROCKETLINX SPECIFICATIONS

HARDWARE

Bus Interface Specification
10/100BASE-TX

Enclosure

IP31 Grade Aluminum

Installation Method

Panel Mount or DIN-Rail Mount

LED Indicators

Power 1, Power 2, Ring Master (R.M.)10/100BASE-TX
Link/Activity, Alarm, PoE Status

Dimensions

6.4" x 1.75" x 5.35"
16.26 x 4.45 x 13.59 cm

Product Weight

1.44 lbs
0.65 kg

TECHNOLOGY

Standard

IEEE 802.3	10BASE-T
IEEE 802.3u	100BASE-T
IEEE 802.1p	Class of Service
IEEE 802.3af	Power Over Ethernet
IEEE 802.1d	Spanning Tree
IEEE 802.1w	Rapid Spanning Tree

Flow Control

IEEE 802.3x
Flow Control and Back-Pressure

PERFORMANCE

Switch Technology

3.2Gbps wire-speed non-blocking Switch Fabric Store
and Forward Switch Technology

System Throughput

14,880pps for 10Mbps; 148,880pps for 100Mbps

Number of MAC Address

2K

Packet Buffer Memory

1Mbits

Transfer performance

64 to 1522Bytes (with port-based VLAN)

Priority Queues per Port

4

PoE Technology

End-Span wiring architecture, PD classification detection,
class ID 0-3 follow IEEE 802.3af standard, and 30W High
power deliver procedures for class ID 4
Pin assignment: V+ (RJ45 Pin 4,5), V- (RJ45 Pin 7,8), TX
(RJ45 Pin 1,2), RX (RJ45 Pin 3,6)
Protection: Provides over-current protection by PD class
ID

PoE Mode

Alternate B

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

Management Security

4 entries for web, telnet, SNMP management security

SNMP Trap

Provides Cold start, Warm start, Port event, Power event,
Authentication failure, PoE trap and private trap for
proprietary functions

SNMP MIB

RFC 1213 MIB, RFC 1493 Bridge MIB, RFC 1757 RMON
MIB, RFC 2674 VLAN MIB, RFC 1643 Ethernet like MIB,
RFC 1215 Trap MIB, RFC 3621 Power Ethernet MIB, Private
MIB

Firmware upgrade

TFTP, HTTP and NetVision

System Log

1000 system entries for system or remote log server

Event Alarm Relay

Relay alarm for Port link down, PoE, and system power
events

Quality of Service

Quality of Service determined by port, Tag and IPv4 Type
of Service

Class of Service

IEEE 802.1p class of service, with 4 priority queues

DHCP

DHCP Client and Server function with specified IP
exclusion and MAC binding function

Timer

Supports Network Time Protocol (NTP) to synchronize

time from NTP Server

VLAN

Port based VLAN

IGMP Snooping

Supports IGMP Snooping v1/v2/v3 and IGMP Query v1/v2

IP Security

IP security to prevent unauthorized access

NETWORK REDUNDANCY

Rapid Spanning Tree Protocol (RSTP)

IEEE 802.1D-2004 STP and RSTP
IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)

Redundant Ring

Failure recovery in less than 5ms

Dual Homing

Inter-operational with higher level switches and RSTP
protocol compliant

PoE PLUS FEATURES

Standards

IEEE 802.3af Power Over Ethernet

Number of PoE Injector Ports

4

Maximum Power/ PoE Port (Max.)

12.9W @ VIN (non-standard PoE mode)

24VDC

15.4W @ VIN (IEEE 802.3af mode)

48VDC

30W @ VIN (high power)

55VDC

Total Power Budget

Up to 100W (IEEE 802.3at)

Standard PoE Voltage Output

IEEE 802.3af compliant 44-57VDC

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 IEEE 802.3af PD
Manual mode for user-configuration of power limit to
IEEE 802.3af 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.

ELECTRICAL SPECIFICATIONS

Device

DC Input Voltage

Standard PoE 48-57VDC

Non-Standard PoE 24VDC

Current Consumption without PD Load

+24VDC 330mA

+48VDC 170mA

Power Consumption (maximum) 8W (without PD Load)

Power Connector

1

Power Connector Type

6-Pin Screw Terminal Block

Power Input Redundancy

Dual Redundant Independent Power Inputs

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 60° C

System Off -40° to 85° C

Operating Humidity

(non-condensing) 5% to 95%

Mean Time Between Failures

37 Years

ETHERNET SPECIFICATIONS

Connector Type

RJ45

Number of Ports

4 x 10/100BASE-TX with PoE Injector; 2 x
10/100BASE-TX

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

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

2.14 lbs

0.97 kg

Package Dimensions

10.1" x 7.0" x 3.6"

25.65 x 17.78 x 9.14 cm

UPC Code

7-56727-32050-0

ECCN

5A992

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 1000-4-8/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 (RoHS2)

Regulatory Approvals



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

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www.comtrol.com/support

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