

# RocketLinx® ES8108F

Part Number: 32056-2 (Single-Mode) | 32057-9 (Multi-Mode)



## KEY FEATURES AND BENEFITS

- Six 10/100BASE-TX ports and two 100BASE-FX Single-Mode or Multi-Mode fiber ports
- SC fiber connectors for secure connections
- 2.0Gbps switch fabric with excellent data exchange performance
- QoS for packet forwarding precedence
- Broadcast storm packet filtering
- VLAN tag priority support
- Supports 1.5KV Hi-Pot isolation protection
- Redundant dual power input 10 to 60VDC
- Port and Power Event Alarm
- Compact aluminum case with IP31 grade protection
- DIN rail installation
- RoHS2 compliant under CE
- Extended operating temperature range (-10° to 70°C)

## PRODUCT DESCRIPTION

The RocketLinx ES8108F is Comtrol's 8-port Fast Ethernet industrial switch with six 10/100BASE-TX ports and two 100BASE-FX fiber ports. The ES8108 features a 2.0Gbps Packet Switch engine with packet forwarding and filtering mechanisms to meet industrial communications standards. It provides packet forwarding capabilities to handle 64 to 1522 byte long packet sizes in two priority queues to optimize data forwarding performance. Broadcast storm filtering and flow control functions ensure data delivery free of traffic congestion.

For applications requiring extended distance network coverage or prone to interference, the ES8108F includes two 100Mbps fiber ports with Multi-Mode (2KM) or Single-Mode (30KM) transceivers. For installation in harsh or industrial environments, the ES8108F is equipped with two redundant power inputs, features a rugged IP31 grade housing and operates within a broad -10° to 70°C temperature range.

For ease-of-maintenance, the ES8108F has alarm output relays for port link and power events, which are enabled/disabled with a DIP switch to assist engineers with on-site monitoring.

### RocketLinx Reliability

The ES8108F includes dual power inputs that can operate on 10 to 60VDC. Dual power inputs and built-in reverse power polarity protection are designed as the redundant power system to ensure power continuity. With the 1.5KV Hi-Pot isolation protection, CE/FCC/UL regulatory approvals, and a 5-year warranty, the RocketLinx ES8108F is the ideal switch solution for deployment in harsh and industrial environments.

# ROCKETLINX SPECIFICATIONS

## HARDWARE

### Bus Interface Specification

10/100 BASE-TX, 100BASE-FX (supports Single-Mode or Multi-Mode)

### Enclosure

IP31 grade compact aluminum metal case, drop-water proof and dustproof

### Installation Method

DIN rail

### LED Indicators

Power 1, Power 2, port/power alarm, RJ45 port link/activity

### Dimensions

4.72" x 2.17" x 4.25"  
120 x 55 x 108 mm

### Product Weight

1.25 lbs  
0.54 kg

## TECHNOLOGY

### Standard

IEEE 802.3 10BASE-T  
IEEE 802.3u 100BASE-TX

### Switch Technology

2.0Gbps switch fabric, store and forward technology

### Flow Control

IEEE 802.3x Flow Control

### QoS

IEEE 802.1Q Quality of Service  
IEEE 802.1p Class of Service

## PERFORMANCE

### System Throughput

1.49Mpps, 10BASE-T (14,800pps) 100BASE-TX  
(148,800pps) 64 byte packet size

### Number of MAC Address with Auto-Learning

2K

### Packet Buffer Memory

448Kbits

### Transfer Packet Size

64-1522 bytes

### Broadcast Storm Control

Default enabled

### Broadcast Traffic Threshold

Default enabled

100Mbps

200 packets/sec.

10Mbps

20 packets/sec.

### Class of Service

2 packet forwarding @ queues

High Queue

(4-7)

Low Queue

(0-3)

### Quality of Service

Default enabled, supports VLAN tag priority, IPv4 packet precedence

### Event Alarm

Both port and event alarm; Enabled by 9-Pin DIP switch

## ELECTRICAL SPECIFICATIONS

### Device

DC Input Voltage 10 to 60VDC  
Current Consumption (+24VDC) 0.5A

### Power Consumption (max)

6W

### 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

0.5A Max. @ 24VDC

## ENVIRONMENTAL SPECIFICATIONS

### Air temperature

System On -10° to 70°C  
System Off -40° to 85°C

### Operating Humidity

Non-condensing 0% to 95%

### MTBF (Mean Time Between Failures)

103.1 years

## ETHERNET SPECIFICATIONS

### Connector Type

RJ45

### Number of Ports

6

### Ethernet Cable Type

Cat 3, Cat 4, Cat 5, Cat 5e (UTP or STP)

### Standard

10/100BASE-TX, auto MDI/MDI-X, auto negotiation

### Link Distance

100 Meters

### Port Alarm Relay

Alarm relay for port failure notification

### Relay

0.5A Max. @ 24VDC

## OPTICAL FIBER SPECIFICATIONS

### Fiber Mode

Single-Mode or Multi-Mode

### Connector Type

Duplex SC

### Number of Ports

2

### Standard

IEEE 802.3 100BASE-FX

### Fiber Cable Type

Single-Mode 8-10/125um  
Multi-Mode 50/125um or 62.5/125um

### Link Distance (Max)

Single-Mode 30KM  
Multi-Mode 2KM

### Wavelength

1310nm

### Transmit Power (Min)

Single-Mode -15dBm  
Multi-Mode -20dBm

### Transmit Power (Max)

Single-Mode -8dBm  
Multi-Mode -14dBm

### Receive Sensitivity (Min)

0dBm

### Receive Sensitivity (Max)

Single-Mode -34dBm  
Multi-Mode -31dBm

### Link Budget

Single-Mode 19dBm  
Multi-Mode 11dBm

## EXPORT INFORMATION

### Packaged Shipping Weight

1.60lbs  
0.73kg

### Package Dimensions

7" x 7.75" x 3.125"  
178 x 197 x 79 mm

### UPC Code

Single-Mode 7-56727-32056-2  
Multi-Mode 7-56727-32057-9

### ECCN

5A991

### Schedule B Number

8517.62.0050

## REGULATORY APPROVALS

### Emissions

European Standard  
Heavy Industrial Equip. Std. IEC/EN61000-6-4  
CISPR16-1-2/-2-1/-2-3/22  
FCC Part 15 Subpart B  
Class A

### 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  
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

### Safety

IEC 60950/EN60950 (LISTED)  
CSA C22.2 60950/UL60950 Third Edition

### Other

RoHS2 compliant under CE

### Regulatory Approvals

