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
- 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.

RAIL CERTIFIED

connect. communicate. control.

HARDWARE

Network 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"
	11.99 x 5.51 x 10.8cm
Product Weight	1.25 lbs
	20 oz

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 (link packet forwarding ability)	
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 and IPv6 packet precedence

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

ELECTRICAL SPECIFICATIONS

Device	
DC Input Voltage	
(Positive or Negative)	10 to 60VDC
Current Consumption	0.125A @ 24VDC
Power Consumption (max)	3W
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	5% to 95%
MTBF (Mean Time Between Failures)	146.6 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
	25.6 oz
Package Dimensions	7" x 7.75" x 3.125"
	17.78 x 19.69 x 7.94cm
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
FCC Part 15 Subpart B
Class A Limit Heavy Industrial
IEC/EN61000-6-4

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
Heavy Industrial IEC/EN61000-6-2

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

Other
European Standard: 2002/95/EC Directive (RoHS)

Regulatory Approvals

RECOMMENDED PRODUCTS ::

32100-2 Power Supply PS1020 Universal
(24V, 20W, DIN rail)

32101-9 Power Supply PS1060 Universal
(24V, 60W, DIN rail)

32102-6 Power Supply PS1100 Universal
(24V, 100W, DIN rail)

ES8108 Single-Mode
32020-3 RocketLinx MC7001
(Single-Mode Media Converter)

ES8108 Multi-Mode
32021-0 RocketLinx MC7001
(Multi-Mode Media Converter)

COMTROL®

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

Sales Support
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