

# ROCKETLINX MC7001

*Industrial Ethernet to Fiber Media Converter*

## HIGHLIGHTS

- One 10/100Base-TX port to One 100Base-FX port Ethernet to fiber media converter
- Dual forwarding modes – switching and pure converter
- Supports 1.5KV Hi-PoT isolation protection
- Supports auto MDI/MDI-X, auto negotiation
- Supports Multi-mode 2KM, Single-mode 30KM link distance
- Auto link loss forwarding (LLF) for fault detection
- Extreme low data forwarding latency  $-1.6 \times 10^{-6}$  Sec
- Wide range DC or AC power input with DC polarity correction
- Compact aluminum case with IP-31 grade protection
- $-10^{\circ}$  to  $70^{\circ}$  C extended operating temperature



**Part Numbers**  
Single-Mode: 32020-3  
Multi-Mode: 32021-0

## Product Description

The RocketLinx MC7001 is an Ethernet to fiber media converter designed to excel in harsh industrial environments requiring a rugged, full-featured DIN rail mount converter in a small form factor IP31-rated housing. The MC7001 converts 10/100Base-TX Ethernet to 100Base-FX fiber with models available supporting single-mode and multi-mode fiber connections.

Simple DIP switch configuration, low latency performance, a wide operating temperature range of  $-10^{\circ}$  to  $70^{\circ}$ C, and advanced features including pure converter and switch modes combine to make the RocketLinx MC7001 a superior choice for applications requiring Ethernet to fiber conversion.



## SPECIFICATIONS

### HARDWARE

<b>Bus Interface</b>	10/100BASE-TX, 100BASE-FX
<b>Enclosure</b>	IP-31 Grade Aluminum Metal Case
<b>Installation Method</b>	DIN Rail
<b>LED Indicators</b>	POWER, RJ45 Port Link/Activity, Fiber Port Link/Activity
<b>Dimensions</b>	4.0" x 1.2" x 2.8"
<b>Product Weight</b>	0.36 lb

### ELECTRICAL SPECIFICATIONS

<b>Device</b>	
DC Input Voltage	18-32 VDC
AC Input Voltage	18-27 VAC, 47-63Hz
<b>Current Consumption</b>	+24VDC 145 mA
<b>Power Consumption (max)</b>	3.5W
<b>Power Connector Type</b>	
(1) 2-Pin Screw Terminal Block	
<b>Reverse Polarity Protection</b>	
Protection against power input reversal	

### ENVIRONMENTAL SPECIFICATIONS

<b>Air temperature</b>	
System On	-10 to 70° C
System Off	-40 to 80° C
<b>Operating Humidity (non-condensing)</b>	
0% to 95%	
<b>Heat Output</b>	11.9 BTU/Hr
<b>Mean time between failures</b>	57.9 years

### ETHERNET SPECIFICATIONS

<b>Connector Type</b>	(1) RJ45
<b>Ethernet Cable Type</b>	
CAT-3, CAT-4, CAT-5 (UTP or STP)	
<b>Standard</b>	10/100BASE-TX Auto MDI/MDI-X, Auto negotiation
<b>Link Distance</b>	100 Meters
<b>Forwarding Modes</b>	
Pure Converter Mode	
Directly transfers Ethernet packets without frame-checking	
Switch Transfer Mode	
Forwards Ethernet packets after received completely and after frame-checking.	
64 to 1522 bytes supported	
<b>Link Loss Forward</b>	
Link loss forward capable for fault detection	

### OPTICAL FIBER SPECIFICATIONS

<b>Fiber Mode</b>	Single-mode or Multi-mode
<b>Connector Type</b>	(1) Duplex SC
<b>Standard</b>	IEEE802.3 100BASE-FX
<b>Fiber Cable Type</b>	
Single-mode	
8/125um, 9/125um or 10/125um	
Multi-mode	
50/125um or 62.5/125um	
<b>Link Distance (Max)</b>	
Single-mode	30KM
Multi-mode	2KM
<b>Wavelength</b>	1310nm
<b>Transmit Power (Min)</b>	
Single-mode	-15 dBm
Multi-mode	-20 dBm

<b>Transmit Power (Max)</b>	
Single-mode	-8 dBm
Multi-mode	-14 dBm
<b>Receive Sensitivity (Min)</b>	0 dBm
<b>Receive Sensitivity (Max)</b>	
Single-mode	-34 dBm
Multi-mode	-31 dBm
<b>Link Budget</b>	
Single-mode	19 dBm
Multi-mode	11 dBm
<b>Supported Communication</b>	
100Base-FX Full-Duplex or Half-Duplex	

### REGULATORY APPROVALS

<b>Emissions</b>	
European Standard EN55022	
CISPR 22	
FCC Part 15 Subpart B	
Class A limit	
<b>Immunity</b>	
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	
IEC 1000-4-11/EN61000-4-11: Dips and Voltage Variations	
<b>Other</b>	
European Standard: 2002/95/EC Directive (RoHS)	
<b>Regulatory Approvals</b>	



### EXPORT INFORMATION

<b>Packaged Shipping Weight</b>	0.60 lb
<b>Package Dimensions</b>	6.00" x 2.50" x 5.00"
<b>UPC Code</b>	
Single-mode	7-56727-32020-3
Multi-mode	7-56727-32021-0
<b>ECCN</b>	5A991
<b>Schedule B Number</b>	8517.62.0050



### APPLICATIONS

- Traffic and Transportation
- Industrial Automation
- Building Automation
- Power Generation
- Material Handling
- Military

### ORDERING INFORMATION

32020-3 RocketLinx MC7001 Single-Mode  
32021-0 RocketLinx MC7001 Multi-Mode

### RECOMMENDED ACCESSORIES

32100-2 Power Supply PS1020 Universal  
(24V, 24W, Din Rail)  
32101-9 Power Supply PS1060 Universal  
(24V, 60W, Din Rail)  
32102-6 Power Supply PS1100 Universal  
(24V, 100W, Din Rail)

### PRODUCT SUPPORT & SERVICE INFORMATION

#### 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  
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#### Email, FTP and Web Support

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