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ROCKET *LINX* MC5001

Industrial Serial to Fiber Media Converter

KEY FEATURES AND BENEFITS

- 3-in-1 RS232/422/485 to serial fiber media converter
- Easy DIP switch configuration to change serial modes
- Supports Multi-mode 5KM, Single-mode 40KM
- Peer-to-Peer or Serial Fiber Ring transmission mode for serial fiber ring communication
- Auto baud rate detection, selection and direction
- Baud rate of up to 921Kpbs
- High level immunity with 15KV ESD protection
- Two-way 120 ohm line terminator embedded
- Dual modes for power input, AC 24V (12-32V)/ DC 24V(12-48V) with Polarity reverse protection
- -20 to 70° C operating temperature for hazardous environment applications

Part Number
Single-Mode: 32000-5
Multi-Mode: 32001-2

PRODUCT DESCRIPTION

The RocketLinx MC5001 is a 1-port serial to fiber media converter designed to extend RS-232/422/485 serial communications across a fiber media link using two converters. This product features simple DIP switch configuration, an extended operating temperature range from -20° to 70° C, and a wide input voltage range. Cabling to the product is attached via direct wire screw terminal blocks for serial and power, and ST connectors for fiber connections. The product is packaged in a rugged IP30 rated enclosure suitable for panel or DIN rail mounting.

Single-mode and Multi-mode fiber optic ports meet the needs for long distance transmission up to 40KM. RocketLinx MC5001 will automatically detect the data baud rate of the connected full-duplex serial device, up to 921Kbps.

The RocketLinx MC5001 supports two transmission configurations, Peer-to-Peer in half/full-duplex and Serial Fiber Ring (SFR) in half-duplex. In a Peer-to-Peer configuration, two fibers are required between the two converters, one for data in each direction (RX and TX). To expand the number of connected serial devices, and extend transmission distance, the MC5001 can link to each other as a ring architechture in SFR (serial fiber ring) mode.

SPECIFICATIONS

HARDWARE

• Enclosure	IP-30 Grade Aluminum Metal Case
• Installation Method	Panel Mountable or DIN Rail
• LED Indicators	POWER, Serial Data Transmit, Serial Data Receive, Serial Fiber Ring
• Dimensions	4.5” x 1.0” x 3.8”
• Product Weight	0.32 lb

ELECTRICAL SPECIFICATIONS

• Device	
DC Input Voltage	12-48 VDC
AC Input Voltage	12-32 VAC, 50/60Hz
Current Consumption +24VDC	65 mA
Power Consumption (max)	1.5W
Power Connector Type	(1) 3-Pin Screw Terminal Block
Reverse Polarity Protection	Protection against power input reversal
Over Current Protection	0.65A Over Current Protection
• ESD Surge Protection	Provides a minimum of 15KV protection for all serial lines

ENVIRONMENTAL SPECIFICATIONS

• Air temperature	
System On	-20 to 70° C
System Off	-40 to 80° C
• Operating Humidity (non-condensing)	5% to 95%
• Heat Output	5.1 BTU/Hr
• Mean Time Between Failures	
Single-mode	55.3 years
Multi-mode	46.5 years

SERIAL COMMUNICATIONS

• Connector Type	(1) 7-Pin Screw Terminal Block

• Supported Standards
- RS-232 (TxD, RxD, GND)
- RS-422 4-Wire (TxD+, TxD-, RxD+, RxD-, GND)
- RS-485 Half-Duplex (Data+, Data-, GND)
- RS-485 Full-Duplex (TxD+, TxD-, RxD+,RxD-, GND)

• Baud Rate	300 to 921.6Kbps
• Serial Link Distance	
RS-232	50 Feet
RS-422	4000 Feet
RS-485	4000 Feet

OPTICAL FIBER SPECIFICATIONS

• Fiber Mode	Single-mode or Multi-mode
• Connector Type	(2) ST
• Fiber Ports	(1) Fiber TX Port (1) Fiber RX Port
• Fiber Cable Type	
Single-mode	8/125um, 9/125um, or 10/125um
Multi-mode	50-125um or 62.5/125um
• Link Distance (Max.)	
Single-mode	40KM with 9/125um
Multi-mode	5KM with 62.5/125um
• Wave-length	
Single-mode	1310nm
Multi-mode	820nm
• Transmit (TX) Power (Min)	
Single-mode	-9 dBM
Multi-mode	-12 dBM
• Transmit (TX) Power (Max)	
Single-mode	-8 dBM
Multi-mode	-9 dBM
• Receive (RX) Sensitivity (Min)	
Single-mode	-27 dBM
Multi-mode	-28 dBM
• Link Budget	
Single-mode	18 dBM
Multi-mode	16 dBM
• Architecture	
PTP Mode	Peer-to-Peer wiring in Full-Duplex or Half-Duplex
SFR Mode	Serial Fiber Ring in Half-Duplex

REGULATORY APPROVALS

• Emissions
- European Standard EN55022
- FCC Part 15 Subpart B
- Class B limit
- Canadian EMC Requirements
- ICES-003

• 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
- IEC 1000-4-11/EN61000-4-11: Dips and Voltage Variations

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

• Regulatory Approvals
- CE Mark, FCC, RoHS Compliant

EXPORT INFORMATION

• Packaged Shipping Weight	
Single-mode	0.60 lb
Multi-mode	0.55 lb
• Package Dimensions	6.00” x 2.50” x 5.00”
• UPC Code	
Single-mode	7-56727-32000-5
Multi-mode	7-56727-32001-2
• Country of Origin	Taiwan
• ECCN	5A991
• Schedule B Number	8517.62.0050

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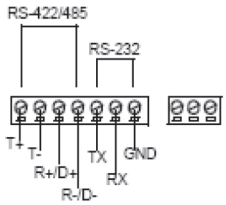
APPLICATIONS

- Industrial Automation
- Building Automation
- Power Generation
- Material Handling
- Military

PINOUT ASSIGNMENTS



ORDERING INFORMATION

32000-5 RocketLinx MC5001 Single-Mode
32001-2 RocketLinx MC5001 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
+1.763.494.4100
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