



RocketLinx® MC5001

Part Numbers - Single-Mode: 32000-5 | Multi-Mode: 32001-2



KEY FEATURES AND BENEFITS

- 3-in-1 RS-232/422/485 serial to fiber media converter
- Easy DIP switch configuration
- Models supporting 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 921Kbps
- 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°C to 70°C extended operating temperature
- RoHS2 compliant under CE
- Rugged IP30 rated enclosure

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°C 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 models meet the needs

for long distance transmission up to 40KM. The 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, multiple MC5001 units can link to each other as a ring architecture in SFR mode.

ROCKETLINX SPECIFICATIONS

HARDWARE

Enclosure

IP-31 Grade
Aluminum Metal Case

Installation Method

Panel mount or DIN rail

LED Indicators

POWER, Serial Data Transmit, Serial Data Receive, Serial
Fiber Ring

Dimensions

4.5" x 1.0" x 3.8"
11.43 x 2.54 x 9.65 cm

Product Weight

0.32 lb
0.15 kg

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)

0% to 95%

Heat Output

5.1 BTU/Hr

Mean time between failures (MTBF)

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

Wavelength

Single-Mode 1310nm
Multi-Mode 820nm

Transmit (TX) Power (Min)

Single-Mode -9 dBm
Multi-Mode -12 dBm

Transmit (RX) 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

EXPORT INFORMATION

Packaged Shipping Weight

0.55 lbs
0.25 kg

Package Dimensions

6.0" x 2.5" x 5.0"
15.24 x 6.35 x 12.7 cm

UPC Code

Single-Mode 7-56727-32000-5
Multi-Mode 7-56727-32001-2

ECCN

5A991

Schedule B Number

8517.62.0050

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

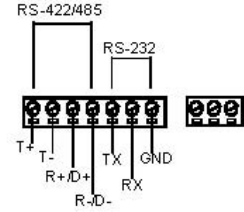
Other

RoHS2 compliant under CE

Regulatory Approvals



PIN ASSIGNMENTS



Warranty Information

Control 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
www.comtrol.com/support

Email, FTP, and Web Support

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