



Model TCF-141 Series
Serial to Fiber Converter
3-in-1 RS-232/422/485 to ST Fiber
Media Converter

Overview

The TCF-141 series is an RS-232/422/485 to fiber optic converter that secures data transmission by using fiber optic transmission to provide immunity from EMI/RFI interference. The TCF-141 series is used for RS-232/422 point-to-point connections and RS-485 multidrop applications for transmitting a signal up to 20 km, and is the perfect solution for applications where transmission must be protected from electrical exposure, surges, lightning, or chemical corrosion.

Features

- Extend RS-232/422/485 transmission distance:
 - up to 20 km with Single mode—TCF-141-S
 - up to 2 km with Multi-mode—TCF-141-M
- Convert RS-232/422/485 signal:
 - to ST Single-mode fiber with TCF-141-S
 - to ST Multi-mode fiber with TCF-141-M
- Plug & Play
- Compact size
- Decrease signal interference
- Protect against electronic degradation/chemical corrosion
- Speed up to 115.2 Kbps for RS-232 and 500 Kbps for RS-422/485
- Connector: DB-9 female
- Signals: Passes through pins 3 (TD) and 2 (RD)
- Pins 7 (RTS) and 8 (CTS) are tied together
- Pins 4 (DTR), 6 (DSR), and 1 (CD) are tied together
- Power supply included

Table 1: TCF-141 Pinouts

Pin #	RS-232	RS-422	RS-485
1	-	TxD+	Data+
2	RxD	TxD-	Data-
3	TxD	RxD-	-
4	-	RxD+	-
5	GND	GND	GND
6	-	-	-
7	-	-	-
8	-	-	-

Specifications

Communications

RS-232 Signal	Supports TxD, RxD
RS-422 Signal	Supports TxD+/-, RxD+/-
RS-485 Signal	Supports Data+, Data-
Baud Rate	50 bps to 115.2 Kbps
Wavelength	820 nm (TCF-141-M) 1310 nm (TCF-141-S)
Optical Loss Budget	Attenuation, 20 dB/1000 ft @ 10 MHz
Fiber Cable	TCF-141-M 50/125, 62.5/125, or 100/140 μm TCF-141-S 8.3/125, 8.7/125, 9/125 or 10/125 μm

Environment

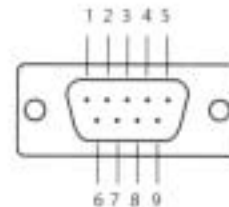
Operating Temperature	0 to 50°C
Humidity	5 to 95% RH

Mechanical

Dimensions (W x D x H)	45x50x20 mm
Weight	148+/-5g

Regulatory Approval

CE, FCC (Part 15, Class A)



Model:

Description:

TCF-141-M.....RS-232/422/485 to ST Fiber Multi-mode Fiber Optic Converter
 TCF-141-S.....RS-232/422/485 to ST Fiber Single-mode Fiber Optic Converter

All models include power supply and manual.

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