

RS485 to Fiber Single Mode



Article Overview

RS485 to single-mode fiber media converters enable long-distance, reliable serial communication by converting RS485 signals to optical fiber, supporting distances up to 40 km or more.

Overview

RS485 to single-mode fiber converters are devices that convert RS485 serial signals into optical signals for transmission over single-mode fiber. This allows serial communication to extend far beyond the typical copper cable limits, providing high immunity to electromagnetic interference, lightning protection, and electrical isolation. These converters are widely used in industrial automation, traffic control, power system monitoring, and distributed data acquisition applications .

Key Features

- **Distance Extension:** Single-mode fiber converters can extend RS485 communication up to 20-40 km, depending on the model and fiber quality . Some dual-fiber models can reach up to 120 km .
- **Connector Types:** Common fiber connectors include SC, ST, and FC, allowing compatibility with existing fiber infrastructure .
- **Data Rates:** Most converters support 300 to 128,000 bps, accommodating standard RS485 communication speeds .
- **Plug-and-Play Operation:** Many models feature auto data direction turnaround, eliminating the need for software drivers or manual configuration .
- **Industrial-Grade Design:** Rugged enclosures, wide operating temperature ranges (...)

Article Content

RS485 Serial to Fiber Optic Media Converters by S.I. Tech

RS-485 to fiber optic converters are used in many multipoint applications where one computer controls many different devices.

TCF-142 Series

The TCF-142 media converters are equipped with a multiple interface circuit that can handle RS-232 or RS-422/485 serial interfaces

RS485 to single mode fiber optic converter

Industrial RS485 to single mode fiber optic converter, point to point & single loop connection, DIN rail mount. Point-to-Point

RS232/RS485/RS422 to SM/SC Fiber Optic Converter (Industrial ...

Rugged industrial-grade RS232 / RS485 / RS422 to fiber optic converter. Transmits serial data (RS232, RS485 or RS422) over long

RS-485 to Singlemode Fiber Optic Converter | rdc485SFO

Our RS-485 to Singlemode Fiber Optic Converter (rdc485SFO) robustly connects your panel mounted RS-485 devices to fiber optic

RS-485 to Fiber Optic Converter Datasheet

It supports transmission of one bi-directional data channel over one multimode or single mode optical fiber. RS232, RS422 and

Gateway / Multi-drop Fibres Optic Converter

HD67033M and HD67035M are devices that allow to extend a RS232 or RS485 network through Multi-Modal optic fiber, up to 2 km.

Serial to Fiber Converter | PSI-MOS-R485/FO 1300 E | Perle

RS485 Serial transmission is commonly limited to 100 kbps over a distance of only 1200 meters (4000 feet). Using the FO 1300 E

Serial to Fiber Converter, RS485 and RS232 over Fiber

GIGABIT ETHERNET And RS-232 and RS-485 over single fiber Transceiver Thor Fiber Multi-Serial (RS-232 / RS-485) + 2 x RJ45

Media Converter - RS485/422/232 to FC Single Mode Simplex (Pair)

This media converter uses a green terminal block to connect to your RS485/422/232 connection and a Simplex FC/UPC connector to

RS232 / RS485 / RS422 / Serial to Multi-Drop Fiber Optic Converters

These converters support up to 255 fiber nodes, and each fiber node can extend the RS232 / RS422 / RS485's distance to 3 miles

IFC-SERIAL-SC030

Product description The IFC-Serial Series are industrial grade fiber media converters that provide a rugged solution to extend

Serial-to-Fiber Converters

Moxa's industrial-grade serial-to-fiber optic converters can convert RS-232/422/485 to optical fiber, which provides users with an

RS-485/Modbus Fiber Optic Converter

LED indicators are provided to show the operational status of the unit clearly. The series is available in compact wall mount or 3U

SOX - RS-485 Fiber Optic Transceiver (for single-mode fiber cable)

The SOX - Fiber Optic Transceiver converts the RS-485 data from the copper network to a fiber optic signal for transmission to

RS-232 and/or RS-485/RS-422 Multi-mode and Singlemode Data fiber

Product description The AFIB1-SERIAL provides a fiber converter solution to extend RS-232 or RS-485/422 transmission distance up

RS232 / RS485 / RS422 to Fiber Optic Converters

Our rugged, industrial-grade, point-to-point RS232 / RS485 / RS422 serial to fiber optic converters work in pairs to extend serial

Contact Us

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