

USB2.0 to Fiber Optic Media Converter - Highly Shielded



Features:

- Supports USB 2.0 over fiber
- ST optical connectors
- Improved Operation for Vista Operating System
- Connects to UHCI, OHCI and EHCI Host
- Supports USB 1.1 and 2.0 Host Controller
- Works with National Instrument Controllers
- Highly Shielded Case - Improved EMI/RFI Protection

S.I.Tech 3181 and 3182 are highly shielded 2181 and 2182 USB media converter pair which extends the range of USB 2.0 beyond the USB 5 meter limit. The USB media converters are compliant with the USB 2.0 specification supporting low speed (1.5Mbps), full speed(12 Mbps), and high speed(480 Mbps) USB data transfer. The 3181 and 3182 provide improved EMI/RFI protection compared to 2181 and 2182.

The 3181/3182 are enumerated as generic USB hub and provide a 1-port USB hub at distances up to 2 Km over fiber optic cable. The 3181 connects to host PC through USB type B connector. The 3182 connects to USB peripherals through USB type A connector. The 3181/3182 can be used with 2181/2182.

- Operation Mode:** USB 2.0
- Input/Output Interface:** USB Type B
- Transmission Line Interface:** ST optical connector is standard
- Transmission Distance:** See distance chart
- Transmitter Output Power:** MMF -9dBm Minimum
62.5micron
SMF -9dBm Minimum
- System Wavelength:** 850 or 1300 nm
- Data Rate:** 1.5, (USB 1.0) 12,(USB 1.1) and 480 (USB 2.0) Mbps
- Bit Error Rate:** 10⁻⁹
- Receiver Sensitivity:** MMF(850nm) -17 dBm minimum
MMF(1300nm) -20 dBm minimum
SMF(1300nm) -20 dBm minimum
- Operating Temperature:** 0 °C to 70 °C
- Weight:** 2 lb (900 grams)
- Input Power:** 5VDC
External with power supply - 5W typical (S.I.Tech #2166 - L 5VDC, UL, CE, & TUVGS Listed)
- Metal Enclosure:** 9.37"L X 4.25"W X 1.75"H (23.8 X 10.8 X 4.4 cm)

OPERATING DISTANCE FOR FIBER OPTIC CABLE

Fiber Size (Microns)	Attenuation dB/Km		Bandwidth MHz/Km		Distance Meters		Distance Feet	
	850nm	1300nm	850nm	1300nm	850nm	1300nm	850nm	1300nm
50	3.0	1.5	600	600	500	600	1650	1800
62.5	4.0	1.5	200	600	275	600	900	1800
10 SM	Unspecified	0.4	Unspecified	Unspecified	-	5000	-	16000

SM - Single mode option - 1300nm (Application limits may be exceeded)
Optical Unit Connection: Connect the optical transmission line to the T and R receptacles.
Note which cable channel goes to Tx or Rx by noting cable imprint
If you are using Laser Enhanced multimode fiber, depending upon its bandwidth, longer distances may be possible..

Note: 3181/3182 require USB2.0 root hub support from USB 2.0 host controller.
The USB 2.0 host controller will be identified in the Windows Device Manager as "Enhanced" or EHCI controller.

Meets FCC requirements of Class B, Part 15 Computing Devices Standard, USB Standard.
Specifications subject to change without notice.

