Model 2182

USB2.0 to Fiber Optic Media Converter

Features:

- Supports USB 2.0 over fiber
- Smaller size and Compact than 2173
- Four USB Hub Ports, each hub port provides attached device with 5VDC power (up to 500mA)
- Power, Optical Signal Detect, Link Status, and Device port status LED indicaters
- LC optical connectors
- Din Rail Mounting Option
- Improved Operation for Vista Operating System
- Supports USB 1.1 and USB 2.0 controller
- Works with National Instrument controllers

S.I.Tech 2181/2182 USB media converter pair 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(1.5 Mbps), full speed(12 Mbps), and high speed(480 Mbps) USB data transfer.

The 2181/2182 are enumerated as generic USB hub and provide a 4-port USB hub at distances up to 2 Km over fiber optic cable. The 2181 connects to host PC through USB type B connector. The 2182 connects to USB peripherals through USB type A connector.

Operation Mode: USB 2.0
Input/Output Interface: USB Type A
Transmission Line Interface: LC 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) -17dBm Minimum
MMF(1300nm) -20dBm Minimum
SMF(1300nm) -20dBm Minimum
Operating Temperature: 0 ^{O}C to 70 ^{O}C
Weight: 0.75 lb (340 grams)
Input Power: 5 VDC (4.75 to 5.5 VDC) External with power supply - 5W typical (S.I.Tech #2166 - 100 to 240 VAC, 50/60 Hz, to 5VDC, UL, CE, & TUVGS Listed)
Metal Enclosure: 4.75" X 3.75" X 1.000"

Note: 2182 5 watts typical, additional USB devices power (5V, up to 500ma) can increase 2182 power to 16 watts.

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 maybe possible.

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

Note: 2181/2182 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.