Model 2172

S.I.TECH

USB2.0 to Fiber Optic Media Converter

Features:
- Supports USB 2.0 over fiber
- Small size
- Power, Optical Signal Detect, Link Status, and Host LED indicators
- SC optical connectors

S.I.Tech 2172/2173 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 2172/2173 are detected as generic USB hub and provide a 4-port USB hub at distances up to 2 Km over fiber optic cable. The 2172 connects to host PC through USB type B connector. The 2173 connects to USB peripherals through USB type A connector.
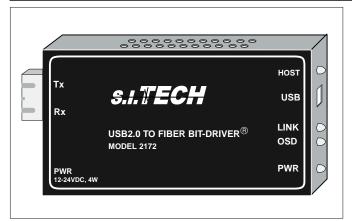
Operation Mode: USB 2.0
Input/Output Interface: USB Type B
Transmission Line Interface: SC optical connector is standard
Transmission Distance: See distance chart
Transmitter Output Power: MMF -17dBm (20 μw) typical 62.5micron
SMF -11dBm typical
System Wavelength: 850 or 1300 nm
Data Rate: 1.5, 12, and 480 Mbps
Bit Error Rate: 10^{-9}
Receiver Sensitivity: MMF(850nm)
MMF(1300nm) -29 dBm typical 1.2 μw
SMF(1300nm) -32 dBm typical
Operating Temperature: $0\ ^{o}C$ to $70\ ^{o}C$
Weight: 1.0 lb (454 grams)
Input Power: 9 - 28VDC 7W max
External with power supply - 4W typical (S.I.Tech #2164 - 100 to 240 VAC, 50/60 Hz, to 12VDC, UL, CSA, CE, & TUVGS Listed)
Metal Enclosure: 5.75" X 3.8" X 1.63" (14.6 X 9.6 X 4.2 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	1000	1000	3300	3300
62.5	4.0	1.5	200	600	400	1000	1300	3300
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. On the other end, reverse the connections.

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

(UL) (CSR) CE

Note: 2172/2173 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.**

TYPICAL APPLICATION