

TEMPEST Media Converter (SI-Model 2181 / 2182)

USB 2.0 to Fiber Optic Media Converter

SDIP-27 Level B / Zone 1



Pictures are similar!

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.

Technical Data

Operating Mode

- USB 2.0

Input/Output Interface

- USB Type B (model 2181)
- USB Type A (model 2182)

Transmission Line Interface

- LC optical connector is standard

Transmitter Output Power

- MMF -9dBm Minimum
- 62.5 micron
- SMF -9dBm Minimum

Bit Error Rate

- 10^{-9}

Operating Temperature

- 0 to 70°C

Input Power

- 5 VDC
- External with power supply – 5W typ. (S.I. Tech #2166 – 100 to 2140 VAC, 50/60 Hz, to 4 VDC, UL, CE, & TUVGS listed)

Preliminary specifications, subject to change without notice!
Released October 2009

Warranty

- A two year return to factory warranty is standard on CE products

Dimensions

- 121 x 95 x 25 mm (W x D x H)
- Weight: 340 g

| Fiber Size μ | Attenuation dB/Km (nm) | | Bandwidth MHz/Km (nm) | | Distance m* (nm) | |
|---------------------|---------------------------|------|--------------------------|------|---------------------|------|
| | 850 | 1300 | 850 | 1300 | 850 | 1300 |
| 50 | 3.0 | 1.5 | 600 | 600 | 500 | 600 |
| 62.5 | 4.0 | 1.5 | 200 | 600 | 275 | 600 |
| 10 SM | - | 0.4 | - | - | - | 5000 |

Operating Distance for Fiber Optic Cable

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 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.

2181/82 require USB 2.0 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.**



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