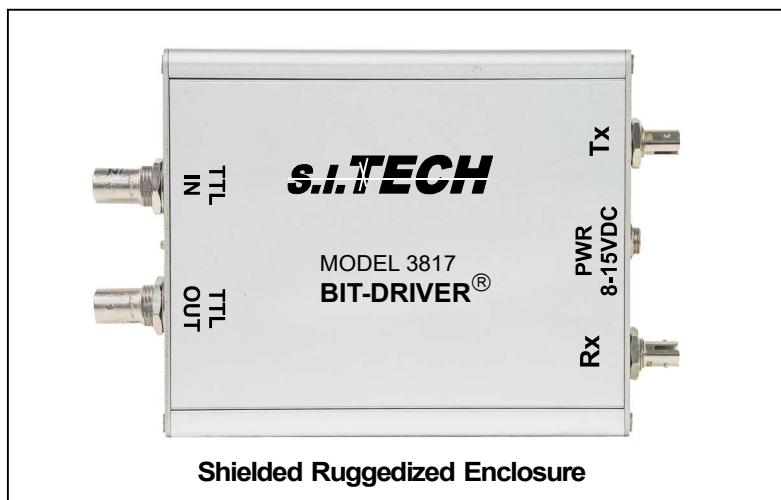


Model 3817

S.I.TECH

TTL to Fiber Optic Transmitter/Receiver



SYSTEM

Transmission: Up to 6500 ft. (2 Km) with suitable graded index fiber optic cable or 10 Km using single mode fiber

Typical Bit Error Rate: Better than 10^{-9}

ELECTRICAL SIGNAL INPUT/OUTPUT FOR TRANSMITTER AND RECEIVER

Format: TTL

Connector: BNC

Data Rate: Up to 20Mbps

Input Impedance: TTL levels 10 K Ω

Output Impedance: TTL levels into 50 Ω

Input Power: 8 to 15VDC 250mA Max.
Optional 5VDC@150mA

OPTICAL TRANSMITTER

LED Current: 30 microwatts (-15 dBm) into 62.5 micron fiber

Wavelength: 820 nanometers (1300 nm option)

Emitter Type: LED

Optical Connector: ST

OPTICAL RECEIVER

Wavelength: 820 nm (1300 & 1550 nm option)

Minimum Sensitivity: (BER $\leq 10^{-9}$) 3 microwatt (-25 dBm)
@ 820 nanometers

Maximum Sensitivity: 10 microwatts

Optical Connector: ST

Operating Temperature: 0 °C to 50 °C (optional extended temp for multimode)

Size: 4.90" X 4.10" X 1.2"
(12.34 X 10.27 X 3.0 cm)

Meets FCC requirements of Class A, Part 15 Computing Devices Standard.

Specifications subject to change without notice.



TRANSMISSION LINE INTERFACE

Operating distance is dependent upon optical fiber core diameter and the cable's optical attenuation. The table below indicates three cables that may be used at any data rate. These cables are available in connectorized assemblies to meet the exact configuration of your application.

S.I.Tech offers complete links including fiber optic cable, connectors, cable assemblies, and Bit-Drivers®.

Operating Distance for Fiber Optic Cable

Fiber Size (Microns)	Attenuation (dB/Km)			Distance (Meters)			Distance (Feet)		
	Wavelength (nm)			Wavelength (nm)			Wavelength (nm)		
	850	1300	1550	850	1300	1550	850	1300	1550
50	3.0	1.0	-	2000	6000	-	6600	20000	-
62.5	4.0	1.0	-	2000	6000	-	6600	20000	-
10 SM*	-	0.35	0.25	-	10000	12000	-	33000	40000

* Single mode (1300 and 1550 nm) option

Optical unit connection: Connect the optical transmission line to the T and R receptacles. Note which cable channel goes to T or R by noting cable imprint. On the other end, reverse the connection.

ORDERING INFORMATION

Model Numbers

3817 TTL to Fiber, Transmitter/Receiver, Multimode, ST Connector
3817 SM TTL to Fiber, Transmitter/Receiver, Single Mode, ST Connector

Notes:

Power Supply #2164 (110VAC to 9 VDC) is recommended for all models-USA

TYPICAL APPLICATION

