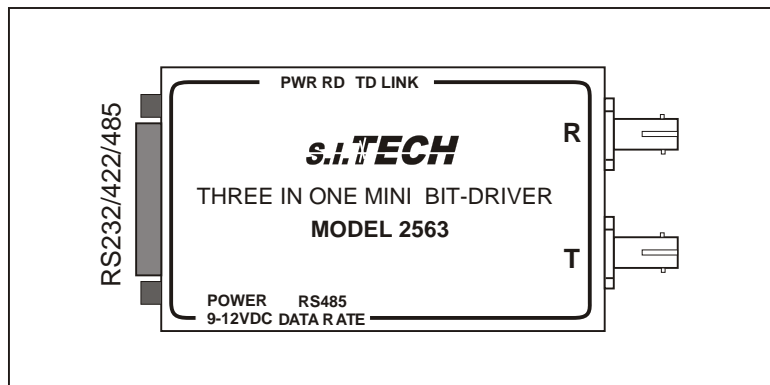


# Optical Asynchronous (Three In One) Mini Bit-Driver



**Features:**

- Concurrent, fully-independent RS232, RS422, and RS485 communication channel over a one duplex fiber optic cable (data is multiplexed over fiber link)
- Up to 115kbps asynchronous operation
- Full duplex RS232 and RS422
  - Optional tri-state control for bus RS422 systems
- Half duplex RS485
  - Rotary switch sets the RS485 bit rate
- Metal ST connector receptacle (SMA option)
- Female DB25 connector RS232 wired as DCE device
- LED indicators for power, optical link status, transmit and receive data
- Optical link status pin
- Multimode or single mode
- DIN rail mounting option

**Operation Mode:** Asynchronous, simplex or full duplex

**Input/Output Interface:** Fully independent RS232/RS422/RS485, asynchronous concurrent. DB25 connector

**Transmission Line Interface:** Metal ST connector is standard for interfacing with fiber optic du plex cable (SMA option, SC and FC option for SM)

**Transmission Distance:** See Distance Chart

**Optical Power into a 62.5 Micron**

**Core Optical Fiber:** 20 microwatts, 10 dB power budget @ 820 nanometers (1300 nm Option)

**Receiver Sensitivity:** 2 microwatts at less than  $10^{-9}$  bit error rate

**Operating Temperature:** 0 °C to 50 °C

**Metal Enclosure:** 3.6" X 2.3" X 1.2" (9.1 X 5.84 X 3.0 cm)

**Weight:** 0.4 lb. (185 grams)

**Input Power:** 9 to 12VDC, 200mA

S.I.Tech 2563 is a unique Bit-Driver allowing simultaneous communication using RS232, RS422, and RS485. Each electrical interface is totally independent and share combined fiber link. This way equipment with different interfaces can be connected over the same fiber link i.e. in a manufacturing plant.

**DB25 Female Connector Pinout**

Pin No.	Description	Direction
1	Chassis GND	
2	RS232 TXD	Input
3	RS232 RXD	Output
4	RTS	
5	CTS	
6	DSR	
7	Signal GND	
8	Link Optical Detect	Output
10	RS485 D+	Bidir
11	Signal GND	
12	RS422 TX+	Input
13	RS422 RX+	Output
20	DTR	
22	RS485 D-	Bidir
23	Chassis GND	
24	RS422 TX-	Input
25	RS422 RX-	Output

4-5 connected together

6-20 connected together

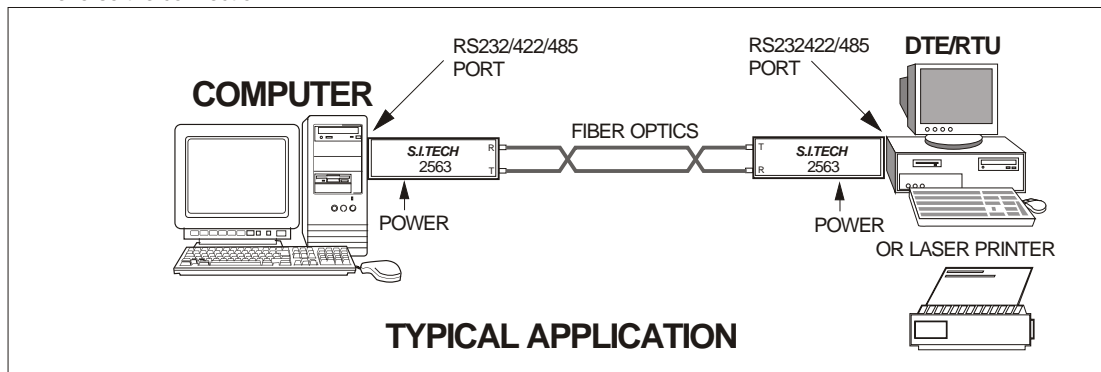
**OPERATING DISTANCE FOR FIBER OPTIC CABLE**

Fiber Size (Microns)	Attenuation dB/Km	Distance* Meters	Distance* Feet
50	3.0	2000	6600
62.5	4.0	2000	6600
10 SM	1.0	5000	16000

\* High power option available. SM - Single Mode 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.

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

Specifications subject to change without notice.



**RS485 Data Rate**

0	1200 bps
1	2400 bps
2	4800 bps
3	9600 bps
4	19.2 Kbps
5	38.4 Kbps
6	76.8 Kbps
7	115.2 Kbps