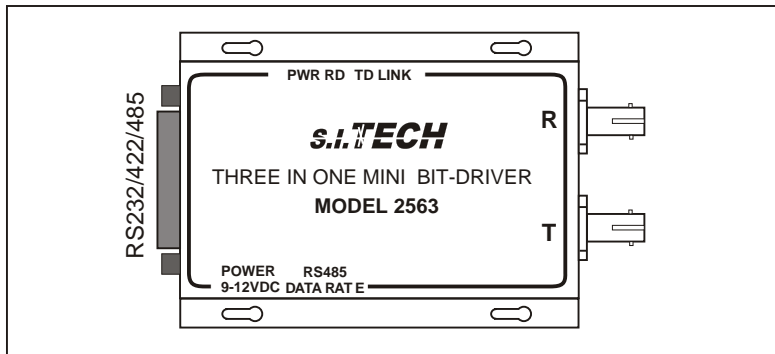


# Optical Asynchronous (Three In One) Mini Bit-Driver



**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

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 a combined fiber link. This way equipment with different interfaces can be connected over the same fiber i.e. in a manufacturing plant.

**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 duplex 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 (Extended Temp. Option -20 °C to 70 °C)

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

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

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

**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.

**DB25 Female Connector Pinout**

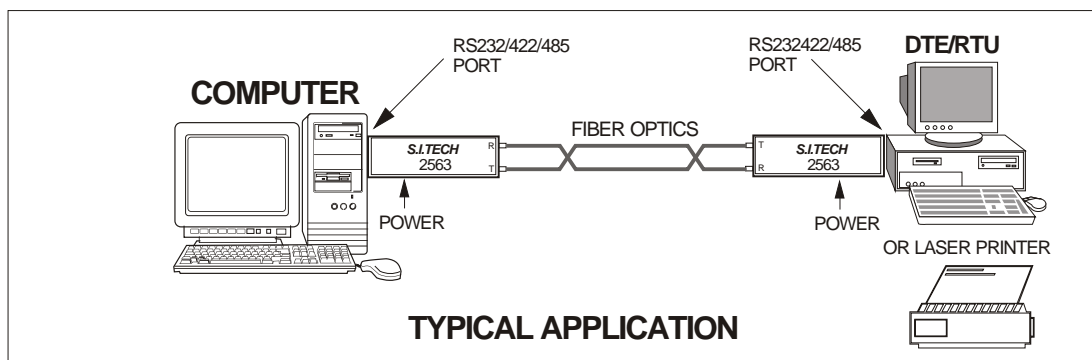
Pin No.	Description	Direction
1	Chassis GND	
2	RS232 TXD	Input
3	RS232 RXD	Output
4	RTS	
5	CTS	
6	DSR	
7	Signal GND	
8	Link Optical Detect	Output
10	RS485 D+	Bidir
11	Signal GND	
12	RS422 TX+	Input
13	RS422 RX+	Output
20	DTR	
22	RS485 D-	Bidir
23	Chassis GND	
24	RS422 TX-	Input
25	RS422 RX-	Output

4-5 connected together

6-20 connected together

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