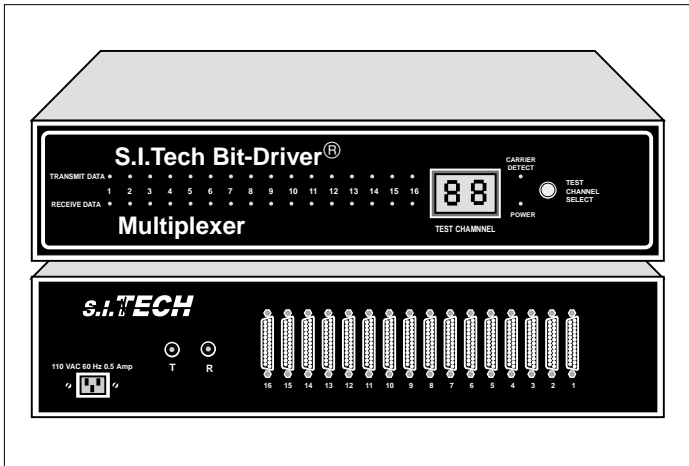


Model 2016

**S.I. TECH**

**Fiber Optic Bit - Driver<sup>®</sup>  
Asynchronous Time Division Multiplexer**



S.I Tech Model 2016 Bit-Driver<sup>®</sup> multiplexer is ideal for in-house data transmission where you have clustered terminal situations. It delivers 16 full duplex ports capable of moving up to 19.2 Kbps in asynchronous mode, without using flow control or buffering techniques, resulting in absolute minimum throughput delay. Aggregate speed is 320 Kbps. Each port on the multiplexer is fully independent.

Model 2016 is a sixteen channel communications system, providing 16 Bit-Driver<sup>®</sup> links using one optical cable interface. Fiber optic cable offers complete immunity to EMI/RFI interference problems for secure data transmission in noisy environments.

Status indicators show the activity of each channel and the integrity of the link. If a problem develops, you can select a digital loopback for any channel at both ends of the link without interrupting the data flow on the other fifteen channels. If transmission line problems are suspected, an analog loopback can be selected and the cable will be included in the test loop. Operating distance is 6600 feet (2 Km), 5 Km option.

- Operation Mode:** Asynchronous, simplex or full duplex.
- Input/Output Interface:** RS-232-C, Type D Asynchronous at 0 to 19.2 kbps.
- Phase Distortion:** Less than 12.5%
- RTS/CTS Delay Time:** 0
- Number of Channels:** 16
- Optical Power into a 50 Micron core Optical Fiber:** 10 microwatts
- Transmission Wavelength:** 820 nanometers (1300 nm option)
- Receiver Sensitivity:** 1 microwatts at less than 10<sup>-9</sup> bit error rate
- Optical Connector:** ST or SMA metal receptacle
- Operating Temperature:** 0 °C to 50 °C
- Input Power:** 105 to 130 VAC 60 Hz, 50 W  
Power transformer secondary fused and operates from 50 to 520 Hz  
Detachable power supply cord
- Metal Enclosure:** 17.25" X 10" X 4.125"  
(43.8 X 25.4 X 10.5 cm) - rack mounting with ears
- Weight:** 12 lbs. (5.45 Kg)
- 220 Volt Version:** Model 2016V

UL & CSA listed. Meets FCC requirements of Class A, Part 15 Computing Devices Standard.  
Specifications subject to change without notice.

**Operating Distance for Fiber Optic Cable**

| Fiber Size (Microns) | Attenuation dB/km | Distance* Meters | Distance* Feet |
|----------------------|-------------------|------------------|----------------|
| 100                  | 5.0               | 2000             | 6600           |
| 62.5                 | 4.0               | 2000             | 6600           |
| 50                   | 3.0               | 2000             | 6600           |
| 10 SM                | 1.0 **            | 7000             | 23000          |

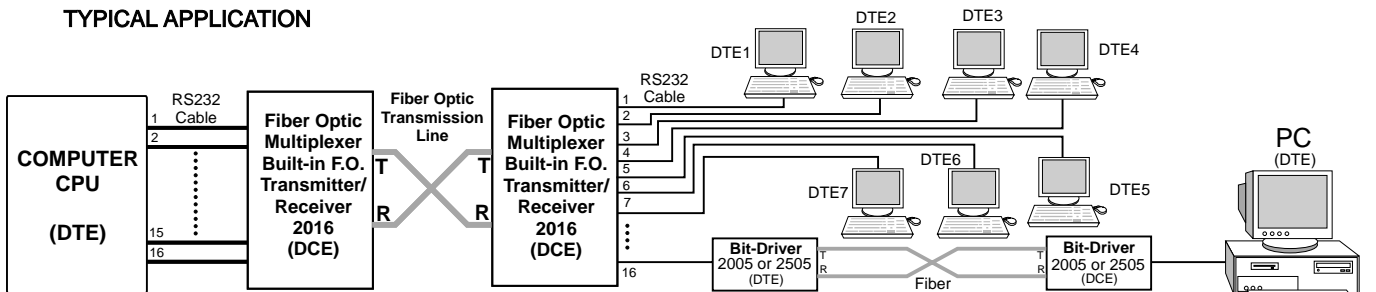
\*\* Single Mode Option  
\* Short length of some fiber types can overload the receiver, see installation instructions.

**RS - 232 CONNECTOR PINS UTILIZED BY 2016 MULTIPLEXER**

| Pin No | EIA Designation | Description         | Symbol         | DTE | DCE |
|--------|-----------------|---------------------|----------------|-----|-----|
| 1      | AA              | Protective Ground   | Chassis Ground | ←→  |     |
| 2      | BA              | Transmitted Data    | TXD            | →   |     |
| 3      | BB              | Received Data       | RXD            |     | ←   |
| 4*     | CA              | Request to Send     | RTS            | →   |     |
| 5      | CB              | Clear to Send       | CTS            |     | ←   |
| 6      | CC              | Data Set Ready      | DSR            | ←   |     |
| 7      | AB              | Signal Ground       | Sig. Gnd.      | ←→  |     |
| 8      | CF              | Data Carrier Detect | DCD            | ←   |     |

\* Optional signal not required for normal operation.

**TYPICAL APPLICATION**



To connect 1 to 16 terminals, printers or other DTE equipment. RS232 cables can also connect to S.I.Tech Fiber Optic Bit-Driver to further extend the distance for particular DTE equipment.