

T1 to Fiber Bit - Driver with Redundancy



- Operation Mode:** Synchronous, half/full duplex
1.544 Mbps (DS-1 protocol)
- Input/Output Interface:** RJ48
TP-100 2 CH
- Transmission Line Interface:** 4 ST fiber optic receptacles
- Transmission Distance:** See distance chart
- Transmitter Output Power:** 30 Microwatts into 50 Micron fiber (1300 nm Option)
- Receiver Wavelength:** 820 nm (1300 nm Option)
- Minimum Sensitivity:** 3 Microwatts @ 820 nanometers
- Bit Error Rate:** 10^{-9}
- Line Bit Rate:** 1.544 Mbps
- Line Code:** AMI or B8ZS
- Dynamic Range:** 10 dB
- Frame Structure:** T1
- Operating Temperature:** 0 °C to 50 °C
- Relative Humidity:** 95%
- Mean Time Between Failure:** MTBF @ 25 °C = 470,000 Hours
MTBF @ 50 °C = 190,000 Hours [Bellcore test method used]
- Metal Enclosure:** 17.0"W X 1.7"H X 7.5"D (43.2 X 4.3 X 19.0 cm)
Designed for 19" Rack, 1U High Rack
- Weight:** 6 lb.(2.72kg)
- Input Power:** 110VAC, 220VAC 50/60 Hz, or 48VDC, 10 Watts

Features:

- 2 channel T1 (DS-1) AMI or B8ZS over 4 fibers
- Provides clear channel capability
- Status indicators & alarms for ease of use and maintenance
- Multimode or single-mode fiber option
- Up to 10 km at low cost
- Optical link failure alarm built in
- Use as 2 independent channels or redundant operation with automatic switch over

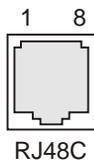
S.I.Tech 2896 Bit-Driver is designed to work with T1 systems. Model 2896 is a T1 to fiber optic transmitter/ receiver full duplex product implementing T1 protocol, 2 CH rack mounted, power unit and built in redundancy. (110VAC, 220VAC, or 48VDC)

This fiber optic Bit-Driver product eliminates many disadvantages of metallic T1 signals, especially EMI/RFI, ground loops (electrical isolation with fiber), high attenuation (high signal loss), limiting distance between nodes of system, and potential lightning damage outdoors between buildings.

S.I.Tech Model 2896 Bit-Driver is a rack mount product allowing easy change from T1 to fiber. Simply connect T1 cable to Model 2896 input/output port. Model 2896 comes with power supply and status indicators. 2896 provides 2-T1 channels. Unit works with 110VAC, 220VAC, and 48VDC input power, 50/60 Hz, 20W. Power can be switched ON or OFF on each channel, as well as primary. Unit can be used as 2 channels or redundant with automatic switch over.

FEMALE RJ48 I/O CONNECTIONS

Pin #	Name	Function
1	R	T1/E1 receive ring
2	T	T1/E1 receive tip
4	R1	T1/E1 transmit ring
5	T1	T1/E1 transmit tip
7		Transmit drain wire
8		Receive drain wire

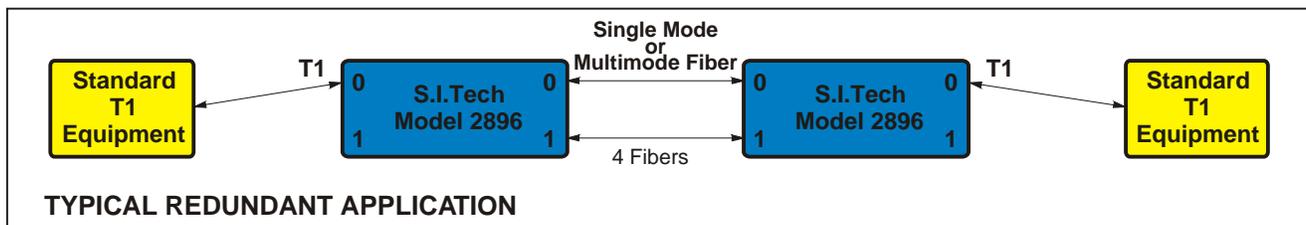


UL listed. Meets FCC requirement of Class A, Part 15 Computing Devices Standard.
Specifications subject to change without notice.

Operating Distance for Fiber Optic Cable

Fiber Size (Microns)	Attenuation (dB/Km)			Distance (Meters)			Distance (Feet)		
	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 (1300nm or 1550nm) option (for longer distances, contact factory)



TYPICAL REDUNDANT APPLICATION