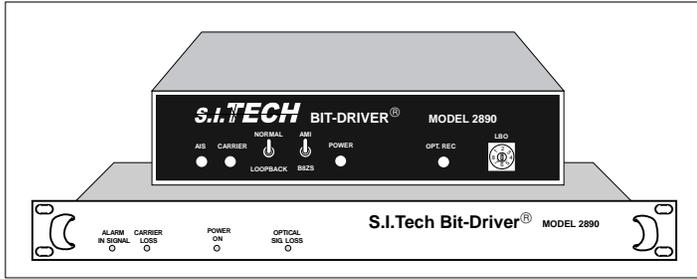


Model 2890 (T1) / 2891 (E1)



T1/E1 to Fiber Bit - Driver[®]



Features:

- T1 AMI or B8ZS, E1 AMI or HDB3
- Status indicators and alarms for ease of use and maintenance
- Twisted pair (T1 and E1) or BNC (E1 only) electrical interface options
- AMI or zero suppression line codes
- Multimode or single mode fiber interface options
- Toggle switches for most control settings and rotary switches for T1 line build out settings
- Up to 10 Km at low cost

The S.I.Tech 2890/2891 Bit-Driver[®] is designed to work with T1 or E1 systems. Model 2890/2891 is a T1 or E1 to fiber optic transmitter/receiver full duplex product implementing T1 or E1 protocol. Nominal operating data rate is 1.544 Mbps \pm 32PPM. (E1 - 2.048 Mbps \pm 50PPM)

This fiber optic Bit-Driver[®] product eliminates many disadvantages of metallic T1 and E1 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 2890/2891 is a stand alone or rack mount product allowing easy change from T1 or E1 to fiber. Simply connect T1 or E1 cable to model 2890/2891 input/output port. Model 2890/2891 comes with power supply and status indicators.

- Operation Mode:** Synchronous, half/full duplex
1.544 Mbps, T1
2.048 Mbps, E1
- Input/Output Interface:** T1 - RJ48C 100 Ω Twisted Pair
E1 - BNC 75 Ω Coax
E1 - RJ48C 120 Ω Twisted Pair
- Transmission Line Interface:** 2 ST fiber optic receptacles
- Connector Options:** ST, SC, and FC
- Transmission Distance:** See distance chart
- Distance Options:** 5 km, 10 km, or 20 km
- Transmitter Output Power:** 30 Microwatts into 50 Micron fiber (820nm & 1300nm options)
- Receiver Wavelength:** 820 nm or 1300 nm
- Minimum Sensitivity:** 3 Microwatts @ 820 nanometers
- Bit Error Rate:** 10⁻⁹
- Operating Temperature:** 0 °C to 50 °C
- Mean Time Between Failure:** MTBF @ 25 °C = 800,000 Hours
MTBF @ 50 °C = 300,000 Hours
[Bellcore test method used]
- Metal Enclosure:** 7.25" X 7" X 1.75"
(18.4 X 17.8 X 4.4 cm)
- 1U Rack Mounting Option:** 17.0"W X 1.7"H X 7.5"D
(43.2 X 4.3 X 19.0 cm)
- Weight:** 3 lb.(1.36 kg) / Rack 6 lb.(2.72kg)
- Input Power:** 3 Watts Max
- Power Options:** 2890/2891 (110 VAC, 60 Hz)
2890V/2891V (230 VAC)
2890-48/2891-48 (-48 VDC)

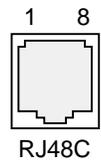
OPERATING DISTANCE FOR FIBER OPTIC CABLE

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	7000	23000

* Single mode (1300nm) option
(High power option available for longer distances)

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 requirements of Class A, Part 15 Computing Devices Standard.
Specifications subject to change without notice.

TYPICAL APPLICATION

Tested to work with:
PBXs
Switches
Key Systems
& Other T1 Equipment

- Made/Used by -

NEC, Samsung,
Panasonic, Verizon,
AT&T, Tadiran,
ECI Telecom,
Lucent Technologies

