

# 10 Gigabit Optical Repeater Bit-Driver



**Features:**

- Data Rates from 100 Mbps to 10 Gbps specified on Purchase Order
- No Regeneration
- Powered by S.I.Tech #2164 Power Supply
- Multimode or single mode option
- Status indicators
- Single fiber option
- Convert multimode to single mode

S.I.Tech 2092 is designed to be used as a repeater on fiber optic links. It can be used to extend the distance of a network link up to 10 Km with single mode fiber or it can also be used to convert from multimode to single mode fiber.

- Operation Mode:** Full duplex NRZ or encoded data
- Input/Output Interface:** LC connectors
- Transmission Distance:** See distance chart
- Metal Enclosure:** 4.15" X 3.65" X 1.21" (10.54 X 9.27 X 3 cm)
- Weight:** 0.8 lb (365 grams)
- Input Power:** 10 to 32 VDC, 2.5 Watts Redundant Power

**ORDERING INFORMATION**

Model Number	Description
2092 - MM/MM - 1G	Multimode 50/62.5 to Multimode 50/62.5 Repeater for up to 1 Gbps, LC standard.
2092 - MM/MM - 10G	Multimode 50/62.5 to Multimode 50/62.5 Repeater for 10 Gigabit. LC standard
2092 - MM/SM - 1G	Multimode 50/62.5 to Single mode Converter for up to 1 Gbps. LC standard
2092 - MM/SM - 10G	Multimode 50/62.5 to Single mode Converter for 10 Gigabit. LC standard
2092 - SM/SM - 1G	Single mode to Single mode Repeater for up to 1 Gbps. LC standard
2092 - SM/SM - 10G	Single mode to Single mode Repeater for 10 Gigabit. LC standard

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



- Notes:
1. Check fiber bandwidth spec to determine length limitation.
  2. Check link loss (attenuation).
  3. For proper operation 2092 optical repeater or fiber size converter should be matched to customer equipment e.g. If your Transmitter/Receiver is 850nm, S.I.Tech 2092 TR/REC should be 850nm. For 1300nm use 1300nm rated 2092.

**Operating Distance for Fiber Optic Cable**

Fiber Size (Microns)	Attenuation (dB/Km)			Distance -100Mbps Feet (Meters)			Distance -1000Mbps Feet (Meters)			Distance -10000Mbps Feet (Meters)		
	850	1300	1550	Wavelength (nm)			Wavelength (nm)			Wavelength (nm)		
50	3.0	1.0	-	6600 (2000)	20000 (6000)	-	1600 (500)	2000 (600)	-	100 (30)	200 (60)	-
62.5	4.0	1.0	-	6600 (2000)	20000 (6000)	-	600 (200)	2000 (600)	-	50 (15)	200 (60)	-
10*	-	0.35	0.25	-	33000 (10000)	40000 (12000)	-	20000 (66000)	25000 (82500)	-	33000 (10 Km)	40000 (13 Km)

\* Single mode option (for longer distances, high power, contact factory)  
At 10 Gigabit data rate both attenuation and bandwidth of the fiber should be considered to determine distance.

