



LTX-510

electrical to optical
E/O Converter

Benefits:

- Two Voltage Input Ranges
- Two Impedance Settings
- Transmit without conducting EMI
- Bandwidth to >60MHz (-3dB)

The LTX-510 Electrical to Optical Converter is a convenient device that is intended to transmit analog or digital signals to a remote location via a multi-mode fiber optic cable. The primary applications are those situations in which the signal of interest has a high common mode voltage with respect to the measurement equipment. These applications include plasma physics experiments, power transmission equipment, and high power laser equipment. Trigger information from electrically noisy sources such as high current discharge laser systems may be transmitted without conducting Electro-Magnetic Interference, (EMI), to the measurement equipment.

The LTX-510 is intended for use with the TIA-500S Optical to Electrical Converter but can be used with other o/e converters that respond at 850 nm and have the appropriate responsivity and bandwidth. The input impedance may be set to 50 ohms for high speed signals sent over a transmission line or to 1 Megohm for use at lower frequencies. The input connector is a female BNC and the output connector is a ST style.

Specifications

Input Voltage Range	0 to + 1 V or 0 to + 5 V, selectable
Input Impedance	50 ohms or 1 Megohm in parallel with 20 pF
Output Power	10 microwatts, - 20 dBm Typical
Input Without Damage	+/- 7 V
Bandwidth (- 3 dB)	DC to 60 MHz
Accuracy	+/- 5% from DC to 35 MHz, +/- 20% from DC to 50 MHz
Output Wavelength	850 nm, 100 nm FWHM
Input Connector	BNC Female
Fiber Output Connector	ST
Usable Fiber Type	Multi-mode, 62.5/125 or 100/140
Power requirements	12 +/- 0.5 VDC@ 100mA or 120 VAC with wall-mount power supply
Dimensions	4.5"W, 2.5"L, 1.0"H (114,63,25mm)
Weight	8 oz., 230 g
Operating temperature	10 - 40 C
Limited warranty	2 years from date of receipt

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