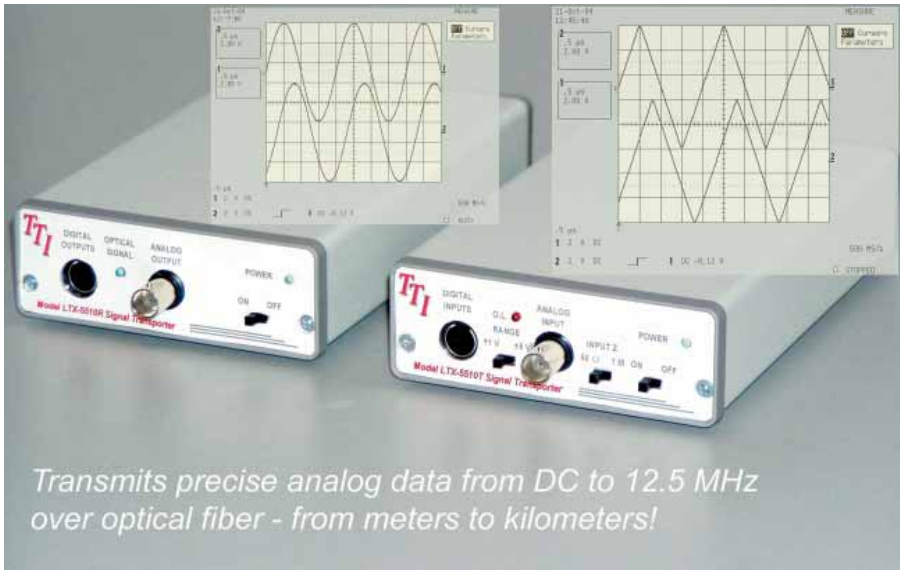
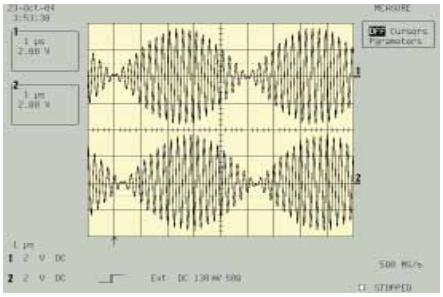
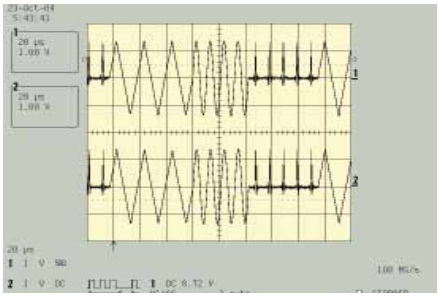
LTX-5510
"Signal Transporter"
E/O - O/E Converter pair



Features:

- One analog plus four digital channels
- DC to 12.5 MHz analog bandwidth
- Input ranges of ± 1 V and ± 5 V
- Analog signal digitized to 12 bit precision
- Four independent digital (TTL) channels
- DC to 24 Mb/s data rate (each channel)





The LTX-5510 enables the precise conveyance of one analog channel plus four digital channels of information over fiber optic links ranging from meters to more than 10 kilometers.

Incoming analog data is digitized to 12-bit precision at 50 mega-samples per second and transmitted over optical fiber at one giga-bit per second. The receiver acquires this digital data and accurately reconstructs the analog signal at the far end of the fiber optic link.

The analog signal bandwidth is from DC to 12.5 MHz (-3 dB). Two input voltage ranges are provided, ± 1 Volt and ± 5 Volts. The input impedance of the transmitter analog channel may be set to 50 ohms or 1 megohm (75 ohms is optional).

Multiplexed along with the analog data, are four independent TTL/CMOS/LVTTL digital signals that may be toggled at rates of up to 24 Mb/s.

Two models are available. Selection depends on the fiber type and the length of the fiber optic link that is required. The LTX-5510-850 transmits at 850 nm over multi-mode fiber optic links of up to 500 meters in length, while the LTX-5510-1310 transmits at 1310 nm over single-mode fiber to span distances exceeding 10 km.

Applications include data acquisition for plasma physics experiments, signal transmission and control of equipment at high voltage potentials, transmission of high quality video, and precise noise-free signal transmission in hostile EMI environments.

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LTX-5510 Specifications

Analog Signal Bandwidth	DC to 12.5 MHz (-3 dB)
Input Voltage Ranges	+/- 1 V or +/- 5 V (selectable)
Resolution	12 Bits
Transfer Accuracy	+/- 0.1% Full Scale, +/- 20 mV offset
Signal Latency (with one meter of fiber)	Approximately 300 nS
A/D Sampling Rate	50 Megasamples per second
Input Impedance	50 Ohms or 1 Megohm || 20 pF, (selectable)
Output Drive Capability	+/- 5 V open circuit, +/- 2 V into 50 ohm load
Output Impedance	50 Ohms
Digital Inputs	TTL, LVTTL, CMOS compatible
Digital Outputs	LVTTL (0 - 3.3 V)
Digital switching Rates	0 - 12 MHz
Digital Signal Edge Uncertainty	0 - 20 nS
Laser Wavelength	LTX-5510-850; 850 nm+/- 20 nm, LTX-5510-1310; 1310 nm +/- 20 nm
Optical Transmission Rate	1.0 Gb/S
Loss Budget	15 dB max.
Optical Return Loss	> 15 dB
Laser Safety Classification	Class I safety per FDA/CDRH and IEC-825-1 regulations
Typical Transmission Distances (850 nm)	500 M with 50/125 micron fiber, 300 M with 62.5/125 micron fiber
Typical Transmission Distances (1310 nm)	10 KM with 9/125 micron fiber
Fiber Optic Connectors	ST standard, FC available upon request
LED Annunciators Provided	Input Overload (transmitter), Optical Signal - ON (receiver)
Power Supplies	Wall Mount, Universal, US, UK, Continental Europe and Australian plugs included
Power Requirements	95 - 260 VAC, 50 - 60 Hz, 16 VA Max.
Operating Temperature Range	0 - 40 C
Transmitter Dimensions (mm)	175 L x 105 W x 40 H
Receiver Dimensions (mm)	175 L x 105 W x 40 H
Weight (each)	0.46 Kg
Standard Warranty	Two Years, Components and Workmanship, 30 day Satisfaction Guarantee
Accesories Supplied	5 pin DIN connector for digital inputs/outputs, xmtr and receiver

TTI reserves the right to change specifications without notice.

We welcome the challenge of custom applications.
Call, fax, or e-mail us with your requirements.

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