

Analog/Digital "Signal Transporter"

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Features:

- One analog plus four digital channels
- DC to 25 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 48 Mb/s data rate (each channel)

The LTX-5510 and the LTX-5515 Signal Transporters 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 up to 100 mega-samples per second and transmitted over optical fiber at one to two giga-bits per second depending on the model. 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 25 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).

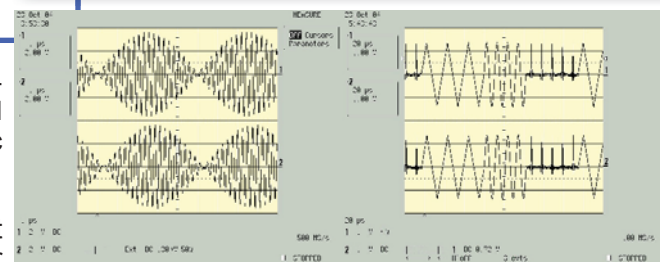
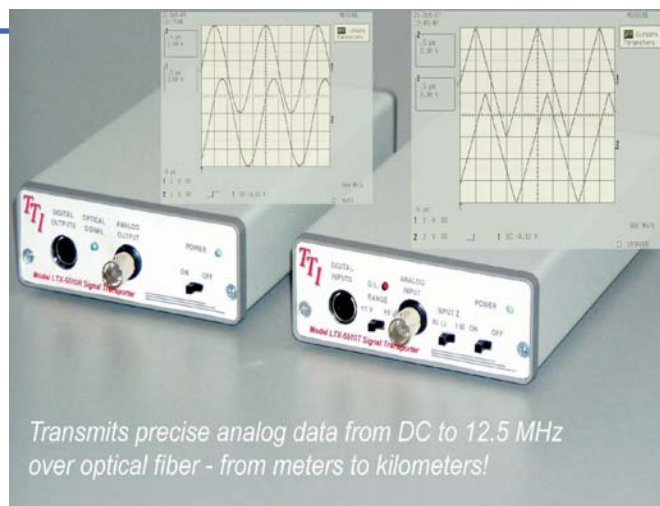
Multiplexed along with the analog data, are four independent TTL/CMOS/LVTTL digital signals that may be toggled at rates of up to 48 Mb/s.

The LTX-5510 and LTX-5515 models are available in multimode or single-mode versions depending on the transmission distance required. The LTX-55XX-850 transmits at 850 nm over multi-mode fiber optic links of up to 500 meters in length, while the LTX-55XX-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.

We welcome the challenge of custom applications

Call, Fax or e-mail us with your requirements



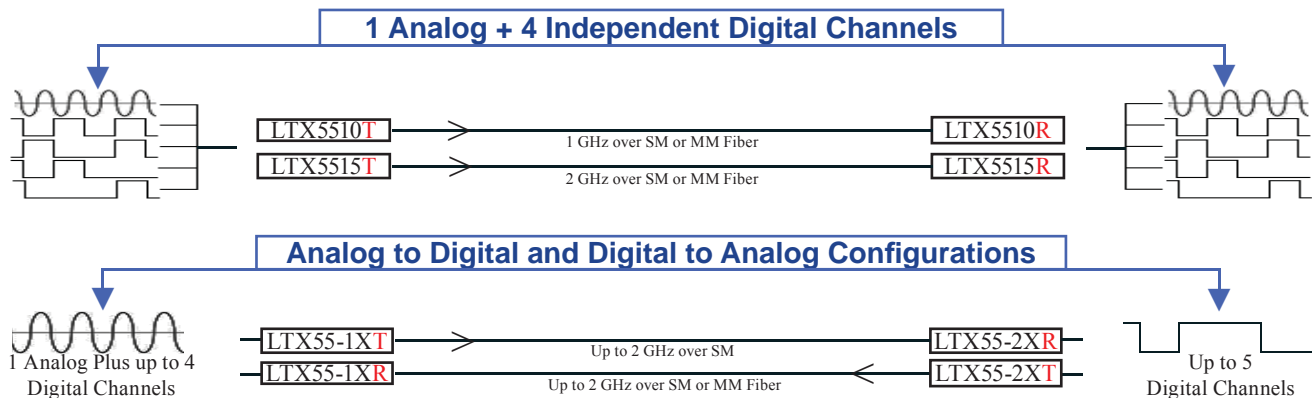
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Specifications

	LTX-5510	LTX-5515
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	100 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, LVTTTL, CMOS compatible	
Digital Outputs	LVTTTL (0 - 3.3 V)	
Digital switching Rates	0 - 12 MHz	0 - 24 MHz
Digital Signal Edge Uncertainty	0 - 20 nS	0 - 10 nS
Laser Wavelength	LTX-55XX-850; 850 nm +/- 20 nm, LTX-55XX-1310; 1310 nm +/- 20 nm	
Optical Transmission Rate	1.0 Gb/S	2.0 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	250 M with 50/125 micron fiber, 150 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	
Accessories Supplied	5 pin DIN connector for digital inputs/outputs, xmtr and receiver	

TTI reserves the right to change specifications without notice.



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