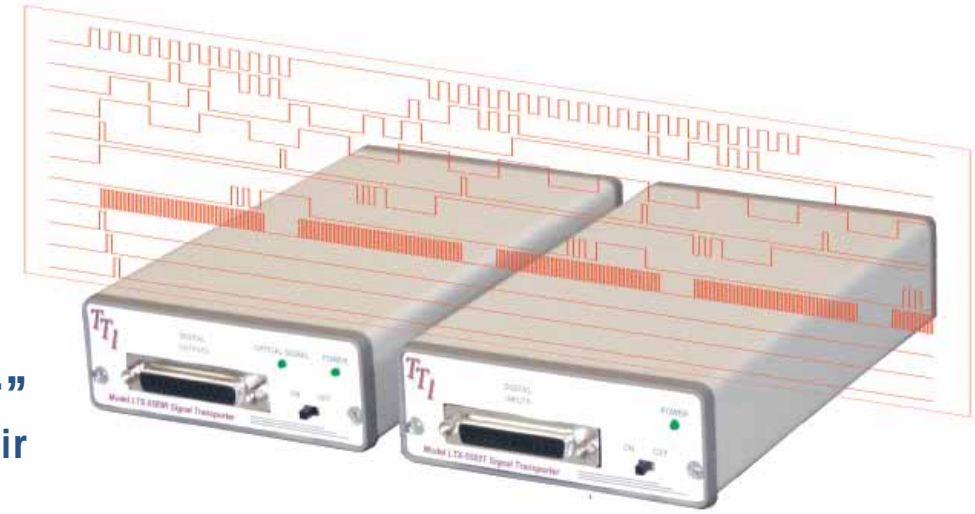
Terahertz Technologies Inc.



LTX-5520
"Signal Transporter"
E/O - O/E Converter pair

Benefits

- Transmits 16 independent TTL signals over a single fiber
- Each channel has 0 to 25 Mb/S bandwidth
- Inputs accepts LVTTL and/or CMOS/TTL
- Outputs are LVTTL (0 - 3.3 V)
- 850 nm version for multimode links up to 500 M
- 1310 nm version for SM links up to 10 KM
- May be paired with elements of the LTX-5510 system to configure remote high speed 12-bit A/D and D/A converter modules

The LTX-5520s conveys sixteen independent channels of digital information over a fiber optic link ranging from meters to more than 10 kilometers.

Each of the 16 incoming TTL channels is sampled at 5 x 10^7 times per second, multiplexed and transmitted serially over an optical fiber at one gigabit per second. The receiver acquires this digital data and de-multiplexes it to 16 separate output ports. Each of these channels may be toggled at rates ranging from 0 - 25 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-5520-850 transmits at 850 nM over multimode fiber optic links of up to 500 meters in length, while the LTX-5520-1310 transmits at 1310 nm over single-mode fiber to span distances exceeding 10 kilometers.

The LTX-5510 precision analog fiber optic link was the first in our series of "Signal Transporters". It digitizes an analog signal at a 50 Ms/S rate with 12-bit precision and reconstructs it at the LTX-5510 receiver by means of a fast D/A converter. If the user employs the LTX-5520 receiver with the LTX-5510 transmitter, the result is a remote fiber-coupled 12-bit data acquisition system.

Similarly one can employ the LTX-5520 transmitter with the LTX-5510 receiver to generate fast high-resolution analog signals at a remote location.

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

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LTX-5520 Specifications

Number of independent channels.	Sixteen
Digital Inputs	TTL, LVTTL, CMOS compatible
Digital Outputs	LVTTL, (0 - 3.3 V)
Signal Latency (with one meter of fiber)	≈ 300 ns
Input Sampling Rate	50 million samples per second
Digital Input Switching Rate	0 - 25 Mb/s
Digital Signal Edge Uncertainty	± 10 ns
Laser Wavelength	LTX-5520-850: 850 nm ± 20 nm, LTX-5520-1310: 1310 nm ± 20 nm
Optical Transmission Rate	1.0 Gigabit per second
Loss Budget	0 - 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 fiber, 300 m with 62.5/125 fiber
Typical Transmission Distances (1310 nm)	10 Km with 9/125 SM fiber
Fiber Optic Connectors	ST Type standard, FC available on request
Signal connectors	DB25 on input and output
LED Indicators Provided	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 104 5 x 40 H
Receiver Dimensions (mm)	175 L x 104 5 x 40 H
Weight Each	0.46 Kg
Standard Warranty	Two years, Components and Workmanship, 30 Day Satisfaction Guarantee

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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