



## LTX-5525 "Signal Transporter" E/O - O/E Converter pair

### Benefits

- Transmits 16 independent TTL signals over a single fiber
- Each channel has a capacity of from 0 - 50 Mb/S
- Inputs accepts LVTTTL and/or CMOS/TTL
- Outputs are LVTTTL (0 - 3.3 V)
- 850 nm version for multimode links up to 300 M
- 1310 nm version for SM links up to 10 KM

The LTX-5525 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 100 million times per second, multiplexed and transmitted serially over an optical fiber at two gigabits per second. The receiver acquires this digital data and de-multiplexes it to 16 separate output ports. Each of these channels supports a channel capacity of 0 to 50 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-5525-850 transmits at 850 nM over multimode fiber optic links of up to 300 meters in length, while the LTX-5525-1310 transmits at 1310 nm over single-mode fiber to span distances exceeding 10 kilometers.

The new LTX-5525 doubles the data capacity of our previous word-width digital fiber optic links. Paired with elements of our high-speed analog links, the LTX-5525 allows the user to configure remote precision A/D or D/A converters. This eliminates the need for the user to digitize analog signals at the receiving end of the analog data link.

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.

Terahertz Technologies Inc.

169 Clear Road Oriskany, NY 13424

Tel: +1 (315) 736-3642

Fax: +1 (315) 736-4078

Email: [sales@terahertztechnologies.com](mailto:sales@terahertztechnologies.com)

Website: [www.terahertztechnologies.com](http://www.terahertztechnologies.com)

## LTX-5525 Specifications

Number of independent channels.	Sixteen
Digital Inputs	TTL, LVTTTL, CMOS compatible
Digital Outputs	LVTTTL, ( 0 - 3.3 V)
Signal Latency (with one meter of fiber)	≈ 300 ns
Input Sampling Rate	100 million samples per second
Digital Input Data Rate	0 - 50 Mb/S
Digital Signal Edge Uncertainty	± 5 ns
Laser Wavelength	LTX-5525-850: 850 nm ± 20 nm, LTX-5525-1310: 1310 nm ± 20 nm
Optical Transmission Rate	2.0 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)	300 m with 50/125 fiber, 175 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.*



169 Clear Road

Oriskany New York 13424 USA

Tel: +1 (315) 736-3642

Fax: +1 (315) 736-3642

Email: [sales@terahertztechnologies.com](mailto:sales@terahertztechnologies.com)

Web: [www.terahertztechnologies.com](http://www.terahertztechnologies.com)