



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

Benefits

- Transmits 16 independent TTL signals over a single fiber
- Each channel may be toggled from 0 - 50 MHz
- 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 may be toggled at rates ranging from 0 - 50 MHz.

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.

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LTX-5525 Specifications

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| 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 Switching Rate | 0 - 50 MHz |
| 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.*



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