

TRENDORKS DIGITAL

TX-55257

TREND NETWORKS DIGITAL

LTX-5525R F

INPUTS



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INTRODUCTION

The LTX-552x 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 up to 5 x 107 times per second, multiplexed and transmitted serially over an optical fiber at up to 2 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 to 48 Mb/S.

Two models are available. The LTX5520 transmits serially at 1 gigabit and the LTX5525 transmits at 2 gigabit over either SM or MM fibers. The distance between units determines the fiber required to complete the link. 850 nm units operate on multi-mode fiber up to 500 meters in length, while 1310 nm units operate with 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 the signal 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.

FEATURES AND BENEFITS

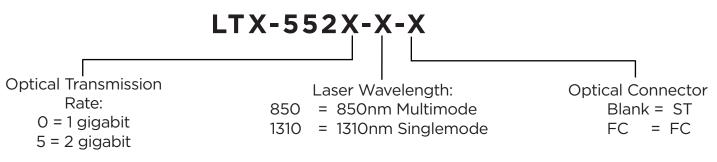
- Channel capacity up to 50 Mb/S
- Outputs are LVTTL (0 3.3 V)
- Accepts LVTTL and/or CMOS/TTL inputs
- 1310 nm version for SM links up to 10 KM
- 850 nm version for multimode links up to 500 Meters
- Transmits 16 independent TTL signals over a single fiber
- Paired with LTX-551x to configure remote high speed
 12 or 14-bit A/D and D/A converter modules



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| LTX-552X-Specifications | | |
|------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| | LTX-5520 | LTX-5525 |
| Number of independent Channels | 16 | |
| Signal Latency (with one meter of fiber) | Approximately 300 ns | |
| 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 | 0-12.5 MHz (up to 24 Mb/s) | 0-24 MHz (up to 48 Mb/s) |
| Digital Signal Edge Uncertainty | 0 - 20 ns | 0 - 10 ns |
| Laser Wavelength | 850 nm+/- 20 nm or 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 Trans. Distances MM | 500 M - 50/125µ and 300 M - 62.5/125µ | 250 M - 50/125µ and 150 M - 62.5/125µ |
| Typical Trans. Distances SM | 10 KM with 9/125 micron fiber | |
| Fiber Optic Connectors | ST standard, FC optional | |
| Signal Connectors | DB25 on input and output | |
| Power Requirements | 9 VDC (Optional 9 - 24 VDC, 500mA) | |
| Power Supply Included | 95 - 260 VAC, 50 - 60 Hz, 16 VA Max - Output 9VDC/.67A with Universal, US, UK, Continental Europe and Australian plugs included | |
| LED Annunciators Provided | Input Overload (transmitter), Optical Signal - ON (receiver) | |
| Operating Temperature | 0 - 40 C | |
| Tx and Rx Dimensions | 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 | DB25 Connectors for Figital Inputs/Outputs and Power Supply With International Mains | |

To Order:



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