Bidirectional Analog/Digital Fiber Optic Link

LTX72X5

Features:

- **Single Fiber Transceivers**
- **Analog I/O - 12 bit Precision**
- **DC-25MHz Analog**
- **0 to 48Mb/s per Digital Channel**
- **+/-5V or +/-1V Full Scale I/O**
- **Digital LVTTL, CMOS/TTL Input**
- **4 or 16 Independent Digital Channels**
- **AC/DC Operation**

Transmit and receive precise analog data from DC to 25 Mhz over a single optical fiber!

The LTX-72X5 Bidirectional Fiber Optic Links are available in an Analog/Digital version that supports 1 analog channel multiplexed with 4 independent digital channels or an all digital version that supports up to 16 independent digital channels. The incoming DC to 25 MHz (-3dB) analog data is digitized to 12 bit precision at 100 mega samples per second and the TTL/CMOS or LVTTL digital channels operate at data rates of 0 to 48Mb/s. This is then transmitted at 2 Gb/s second for distances up to 10 kilometers. The signals are then received, demultiplexed and reproduced at the far end of the fiber optic link. The analog input voltage ranges of ±1 Volt or ±5 Volts. The input impedance of the analog channel may be set to 50 ohms or 1 megohm with a 75 ohms option available. These LTX72X5 units have a battery option that will allow for up to 3 hours of operation for experiments at extremely high potentials. 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.

Analog/Digital and Digital only units may be used interchangeably for analog to digital or digital to analog Conversion

scitec INSTRUMENTS

Made In the USA

Scitec Instruments Ltd.
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LTX-72X5 Specifications

Analog Channels	LTX-7215 only
Number of Analog Channels	1
Analog Signal Bandwidth	DC to 25MHz (-3 dB)
Resolution	12 Bits
Input Voltage Ranges	+/- 1 V or +/- 5 V
Transfer Accuracy	+/- 10 mV offset, +/- 0.1% Full Scale (100Hz sine wave 8v pk-pk)
Output Impedance	50 Ohms
Output Drive Capability	+/- 5 V open circuit, +/- 2 V into 50 ohm load
Input Impedance	50 Ohms or 1 Megohm || 20 pF, (selectable)
A/D Sampling Rate	100 Mega samples p/s

Digital Channels	LTX-7215	LTX-7225
Number of Digital Channels	4	16
Digital Inputs	TTL, LVTTL, CMOS compatible	
Digital Outputs	LVTTL (0 - 3.3 V)	
Signal Latency (with one meter of fiber)	Approximately 300 ns	
Digital switching Rates	0 - 25 MHz	
Digital Signal Edge Uncertainty	0 - 10 ns	

We welcome the challenge of custom applications

Call, fax or E-mail us with your requirements

General	
Laser Wavelength	1310 nm +/- 20 nm
Optical Transmission Rate	2.0 Gb/S
Loss Budget	7 dB
Laser Safety Classification	Class I safety per FDA/CDRH and IEC-825-1 regulations
Typical Transmission Distances	10 KM with 9/125 micron fiber
Fiber Optic Connectors	ST standard, FC available upon request
Analog Connector	BNC
Digital Connector	(Cable and Breakout Board Supplied)
LED Annunciators Provided	Input Overload, Optical Signal and Power
Power Supplies	Wall Mount, Universal, US, UK, Continental Europe and Australian plugs included
Power Requirements	95 - 260 VAC, 50 - 60 Hz, 16 VA Max.
Batteries/hrs of Operation	6 AA NiMH / 3 hrs
Operating Temperature Range	0 - 40 C
Transmitter Dimensions (mm)	214 L x 114 W x 59 H
Weight (each)	0.578 Kg
Standard Warranty	Two Years, Components and Workmanship, 30 day Satisfaction Guarantee

TTI reserves the right to change specifications without notice.

Ordering Information	
LTX-7215-1310	Singlemode, 2.0 Gb/s Analog/Digital Signal Transporter
LTX-7215-1310-BAT	Singlemode, 2.0 Gb/s Analog/Digital Signal Transporter with Battery Pack
LTX-7225-1310	Singlemode, 2.0 Gb/s Digital Signal Transporter
LTX-7225-1310-BAT	Singlemode, 2.0 Gb/s Digital Signal Transporter with Battery Pack

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