WARRANTY

All fiber optic transmission systems, products and accessories manufactured by Liteway, Inc. and it's subsidiaries are fully tested prior to shipment and are warranted against defective materials and workmanship for a period of five full years from the date of the original shipment. Should a problem occur, a Return Material Authorization Number (RMA) must be obtained from Liteway Inc. at (516) 931-2800 and the item returned to Liteway, Inc. 166 Haverford Road, Hicksville, NY 11801, USA, prepaid. Liteway Inc. will then, at its option repair or replace the defective item.

Liteway, Inc. maximum liability under this warranty is limited to the cost of the defective item only. No contingent liabilities of any kind are either assumed or implied.

Any items returned to Liteway, Inc. that have been misused, abused, damaged, modified, connected or adjusted in any way contrary to the instructions furnished by Liteway, Inc. or repaired by unauthorized personnel will not be covered by this warranty. Any non-warranty repairs required will be quoted at the current rate for such services.

Important Notices

CAUTION ! AVOID DIRECT EXPOSURE TO BEAM.
All –5, -7, -8, and -9 Models use laser diodes. These solid-state laser diodes are located in the optical ports of these units. Laser diodes produce invisible radiation that may be harmful to human eyes. Never look directly into the optical port of any fiber optic unit designed to operate with single-mode optical fiber.

NOT FOR LIFE SUPPORT SYSTEMS
Liteway, Inc. does not authorize or warrant any of its products or accessories for use in critical life support systems or applications of any kind.

Operating Instructions

LuxLink® Fiber Optic Wideband Analog Transmission System

Models;
INST-1701
INSR-1701

The ***LuxLink***® INST/INSR-1701 is an analog fiber optic transmission system designed for the transmission of wide-band electrical signals in a variety of applications.

Technical Specifications

Bandwidth Single-mode fiber	200 KHz to 1.5 GHz (+0,-3dB)
Bandwidth Multimode fiber	200 KHz to 500MHz /Km
Input / Output Impedance	50 Ohms
Signal Input/Output Level	0.1V / 1.0V pp maximum
Signal / Noise Ratio	48 dB minimum @ 0 dB optical loss 28 dB minimum @ 10 dB optical loss
Optical Noise Level (typical)	-23 dBm (5uW) rms
Linearity	3.0% maximum
Phase Shift	3.0° maximum
Rise / Fall time	0.5 ns maximum
Operating Wavelength	1310 nm (-3,-7) or 1550 nm (-9)
Optical Loss Budget	0 to 10 dB
Optical Connectors	FC/PC single-mode, ST/PC multimode
Signal Connectors	BNC
Temperature Range	-35° to +75°C
Power Requirements	11-24 VAC/DC @350 mA max
Physical Size (mm)	5.0" (127) x 3.0" (76) x 1.0" (25.4)

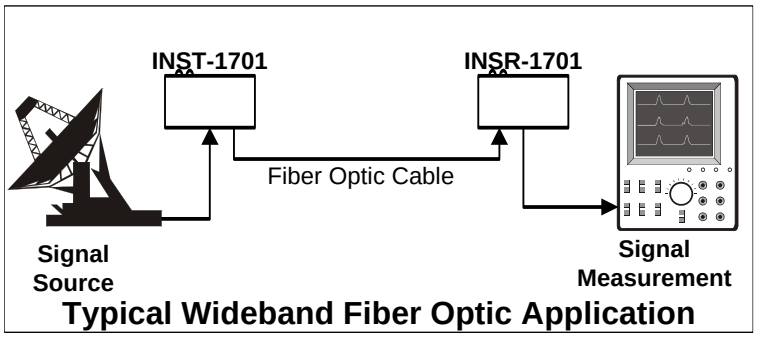
All specifications are subject to change without prior notice.
All specifications measured with 10m of 9u single mode fiber.

LuxLink®
Fiber Optic Transmission Systems
www.LuxLink.com
USA 516-931-2800

Installation Instructions

The diagram below shows a typical installation of the INST-1701 and INSR-1701. To compensate for the unique fiber optic losses of your installation there is a level adjustment on the INSR-1701. To calibrate your installation, insert a 0.1 volt pp 10 MHz test sine-wave signal into the transmitter and set the receiver level adjustment for a 0.1volt peak-to-peak output signal. The range of the receiver level control is adequate to allow the full 0 – 10 dB optical path loss range to be accommodated.

To maintain the wide-band characteristics of the system use 50 ohm coaxial cable for all signal connections. Note that the INST-1701 has an internal 50 ohm termination while the INSR-1701 is back-terminated in 50 ohms and is designed to work into a 50 ohm load..



Typical Wideband Fiber Optic Application

Indicator Lights

Indicator	Lights when
Pwr (green)	Proper power is present.
Alrm (red)	The loss of signal alarm is activated and there is no analog signal present. This feature may also not operate properly with all types of signals.
Tx or Rx (green)	A continuous analog signal of 0.1volt peak-to-peak or greater is present. This indicator may not trigger on all signals

The **Alarm** switch is used to turn the alarm function ON and OFF.

Power Terminal Block Connections

Pin	Function
1	Alarm output for use with optional Alarm Sensing Unit ALM-1000. No other connections should be made to this terminal
2	+11 to 24 DC or AC Volts input
3	AC or DC return (Common to Housing)

Be certain to check all connections, settings and voltages before applying power

These units may be used stand-alone, DIN rail mounted with ah accessory DIN-1000 adapter or in an RMP-series rack mounting plate.

Multimode Version bandwidth limitations

Multimode fiber versions INST-1701-3 and the INSR-1701-3 have a system bandwidth of 500 MHz per Kilometer of the optical fiber which is due to the fiber itself.

INST-1721

The INST-1721 is exactly the same as the INST-1701 with the exception that the input voltage level is 1.0 volt pp.