

## WARRANTY

All fiber optic transmission systems, products and accessories manufactured by Liteway, Inc. and its 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 -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

### **Litelink<sup>®</sup>** **Fiber Optic MIL-STD 1553** **Bus Monitoring System**

#### **Models** **DT-7701 and DR-7701**



The **Litelink<sup>®</sup>** DT/DR-7701 system consists of the DT-7701 transmitter and DR-7701 receiver and will transmit wide band MIL-STD1553 bus signals for monitoring applications.

#### **Technical Specifications**

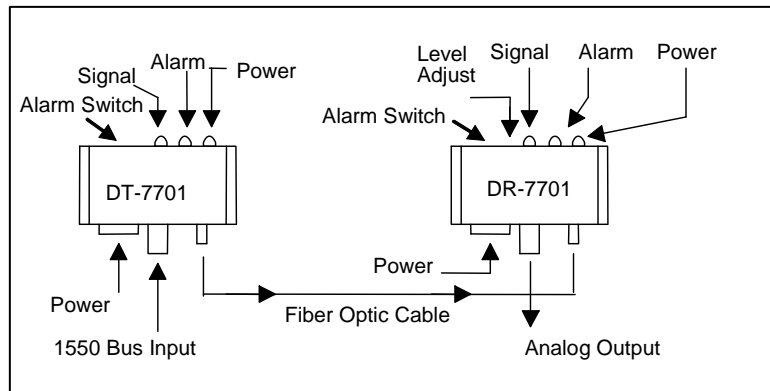
|                             |  |
|-----------------------------|--|
| System Bandwidth (min.)     | 20 Hz to 10 MHz                        |
| Input / Output Impedance    | 3000 ohms/50 ohms                      |
| Input / Output Signal Level | 0 to 20 Volts peak-to-peak             |
| Signal / Noise Ratio        | 60 dB minimum                          |
| Linear Range                | 0 to 5 Volts pp                        |
| Linearity                   | 3.0% maximum                           |
| Phase Shift                 | 3.0° maximum                           |
| Rise / Fall time            | 35 ns typical                          |
| Operating Wavelength        | 1310 nm                                |
| System Delay                | 25ns + 1 ns/foot of fiber              |
| Optical Loss Budget         | 0 – 10 dB                              |
| Fibers Accommodated         | 1 Multimode                            |
| Operating Temperature       | -35° to +75° C                         |
| Power Requirements          | 12-24 Volts DC @ 500 mA                |
| Physical Size (mm)          | 7.0"(178)L x 5.0"(127)D x 1.0" (25.4)W |

All specifications measured with 1Km of 62.5u multimode fiber.

All specifications are subject to change without prior notice.

# Installation Instructions

The diagram below shows the typical installation of the DT-7701 and DR-7701 fiber optic analog transmission units. Both should be connected as shown. To compensate for the unique fiber optic losses of the installation there is a level adjustment on the DR-7701. For calibration purposes a 100 KHz test sine-wave signal may be applied to the transmitter and the receiver level adjustment then set for a 1 volt peak to peak output signal. The range of the receiver level control is adequate to allow the full 0 - 10dB optical path loss range to be accommodated.



## 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 0.5 volt 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.

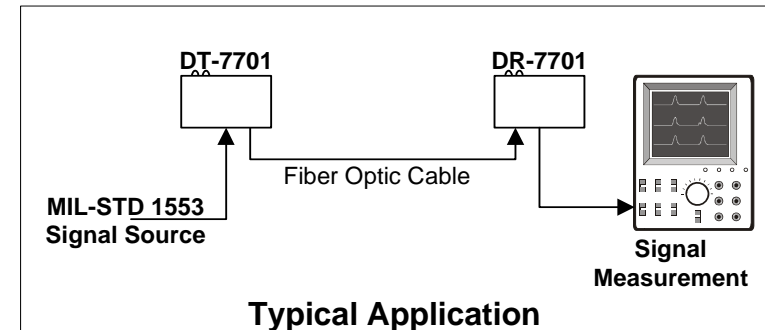
113366 Rev E

## 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 or in an RMP-series rack mounting plate.



The DT/DR-7701 is an analog transmission system. All signals on the bus that are less than 5 volts pp will be transmitted linearly. Any signal from 5 volts to 20 volts pp will be compressed but transmitted for monitoring purposes clamped to 5 volts.

Note that the signal connector is a BJ-77 triaxial connector