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 11801-3440, 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 ! The laser diodes used in all –7 and –9 Fiber Optic Transmission systems manufactured by Liteway, Inc. utilize solid-state laser diodes located in the optical ports of these units. These laser diodes produce invisible radiation which may be harmful to human eyes. As a result one should never look directly into the optical port of any fiber optic unit designed to operate with single-mode optical fiber.

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.

 121495 Rev B

OPERATING INSTRUCTIONS

Fiber Optic Digital IRIG (DCLS)

Signal Distribution

Model TTLC-1004

The TTLC-1004 is a distribution amplifier that converts a digital (DCLS) electrical IRIG A through IRIG E input signal into four individual balanced (and isolated from ground) electrical output signals for distribution to IRIG equipment requiring such signals

Technical Specifications

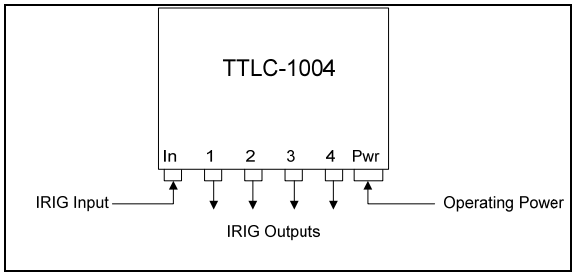
Signal Bandwidth	DC to 1 MHz (0 to 10^6 pulses/second)
In/Out Impedance	Standard TTL (3K ohms)/50 ohms
In/Out Signal Level	Standard TTL (0/5 volts typical)
Signal/Noise Ratio	60 dB/min
Linearity & THD	0.5% max
Normal TTL Output	5 volts into 3K ohms
Maximum TTL Output	3 volts into 50 ohms
Output Rise Time	10 nsec maximum
MTBF	100,000 Hours (MIL-HDBK-217)
Temperature Range	-35º to +75ºC
Power Requirements	11-24 VAC/DC @150 ma.
Physical Size (mm)	5.0”(127)L x 1.0” (25.4)W x 3.0”(7)D

All specifications are subject to change without prior notice.

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

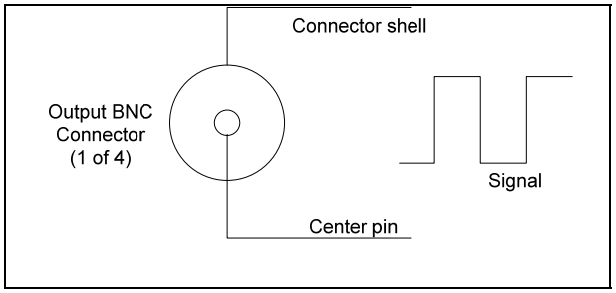
Installation Instructions

The diagram below shows the typical IRIG system that uses the TTLC-1004 IRIG distribution.



Note that in the above diagram all IRIG outputs are isolated from ground and are “floating”. The IRIG input is not isolated from ground.

The drawing below shows one of the output BNC connectors and a typical output signal. Note that the center pin of the output BNC connector is the signal and the shell is the return. There is no connection between the shell and case ground.



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 VAC or DC
3	AC or DC return (Common to Housing)

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

Indicator Lights

Indicator	Lights when
Pwr	Proper power is present.
Alrm	The loss of sig alarm has been activated and there is no data signal present
Sig	A data signal is being received.

Note that at low signal rate levels the Sig LED will blink in step with the input signal. For example, at a data rate of 1 pulse per second, the Sig LED will blink at 1 blink per second.