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.

113439 Rev P

OPERATING INSTRUCTIONS

LuxLink®
Optical 1x1 Switch
Single Channel Model
OS-3111

Dual Channel Model
OS-3211

The OS-3111 is a fiber optic switch that can be remotely controlled. The optical path through the units is purely optical. There is no optical to electrical to optical conversion. As a result, there is no data rate limitation or bandwidth limit on the fiber optic path. In addition, since the optical signal is not demodulated the optical data is totally secure. The optical path can be select via a front panel switch or via contact closure input. In event of loss of power, the unit has a fail-safe mode that opens the switch.

Technical Specifications

Switching Time	< 10 ms
Back Reflection	< -50 dB
Insertion Loss	< 1.3 dB
Cross-talk	< -50 dB
Mechanical Life	> 1 million cycles
Electrical Connector	5 pin removable terminal block
Temperature Range	-35º to +70ºC
Operating Power Requirements	11-24 VAC/DC @150 mA -48 VDC (+/-2) for OS-1202, OS-2202
Physical Size (mm) single	5.0" (127) L x 1.0" (25.4) W x 3.0" (7)D
Physical Size (mm) dual	5.0" (127) L x 2.2" (56.6) W x 3.0" (7)D

Models, wavelength, connector

-3 = 850/1310nm, mm ST/PC	-4 = 850/1310nm, mm SC/PC
-2= 850 nm, Multimode LC/PC	-6= 130nm, single mode LC/PC
-5 = 850/1310nm, sm, SC/PC	-7 = 1310/1550nm, sm, FC/PC

Specifications are subject to change without prior notice.

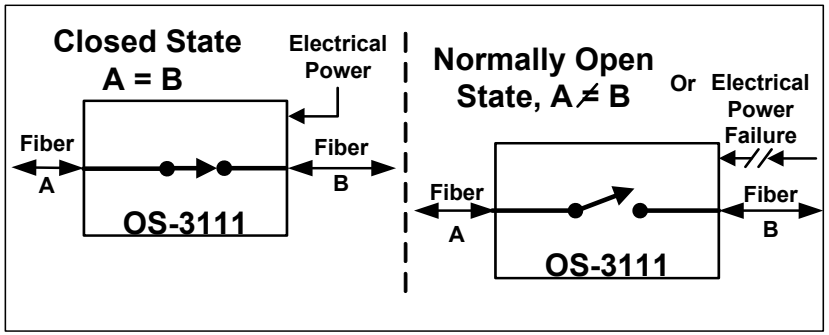
LuxLink®
Fiber Optic Transmission Systems
www.LuxLink.com
USA 516-931-2800

Installation Instructions

Common applications for this device are optical routing, system bypass, ring network restoration, and loop-back testing.

The diagram below shows the typical application of the OS-3111.

Note that the OS-3211 is two OS-3111 units in parallel and in one housing.



The OS-3111 switch will go into the open state under any of the following conditions:

1) There is a loss of electrical power
* 2) The front panel mode switch is put into the close mode and there is electrical power.
* 3) The rear panel control signal is grounded and there is electrical power.

For applications where two independent optical channels need to be switched, such as dual SONET rings, the OS-3211 is two OS-3111 in a single enclosure.

* Front panel switch and rear panel control signal only controls the switch when there is electrical power to the unit.

Power Signal Terminal Block Connections

Pin	Label	Function
1	Pwr+	+11 to + 24 Volts AC/DC
2	Pwr-	Return or Ground (also case ground)
3	Ctl	Control Signal (Connect to ground to place switch in open state)
4	Alm	Alarm* = gnd when optical switch is in the closed state or there is a loss of operating power = Open when optical switch is in the open state
5	Gnd	Ground

* The Alarm signal can be used with the ALM-1000 unit to provide an audible alarm and dry contacts for remote station monitoring.

Indicator Lights

Indicator	Lights when
Power	Proper power is present
Open	There is an open optical path through the switch.
Closed	There is a closed optical path through the switch.

Front Panel Mode Selector

Position	Function
Open	Optical port A (C) is blocked from optical port B (D)
Closed	Optical port A (C) is routed to optical port B (D)
Rmt	Optical port A (C) is routed to optical port B (D) except when rear control signal is activated or power is lost

Optical Connector Signal Paths

The optical signal path for the OS-3111 is port A to port B

The optical signal paths for the OS-3211 are port A to port B
And port C to port D

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