Bidirectional Optical Protection Switch   OS-7121

For Automatic network path protection

The *LuxLink*® OS-7121 is an optical path protection switch, providing a self healing network. This optic switch detects loss of optical power in the primary optical path and automatically switches to the secondary (backup) path. When the primary link is restored, the network path is restored to the primary path. The optical protection switch can be controlled via three methods; front panel manual switch, remote control signal, or the automatic internal monitoring circuitry. The switch also contains a transmitter splitter for creating the redundant transmit path.
The optical path through the units is purely mechanical; i.e. there is no optical to electrical to optical conversion.
Applications include telecom, datacom, ATM, and CATV systems.

Technical Specifications

Switching Time	< 10 ms
Back Reflection	< -50 dB
Insertion Loss	< 1.5 dB
Cross Talk	< -50 dB
Switch Life cycle	> 1 Million cycles
Switch sensitivity	Selectable from -29 to -43 dBm
Sensitivity Data rate	DC to 3 Gb/s
Operating Wavelength	850/1310 or 1310/1550nm
Optical Connectors	ST, SC, or FCPC
Operating Temperature	-20° to +70°C
Humidity	<95% non condensing
MTBF (per MIL HBK 217)	>120,000 hours
Power Requirements*	12 VDC, 110/220 VAC or -48VDC
Physical Size	1U rack mountable, 8" Depth

* -48VDC models available by request.
Note that all specifications are subject to change without prior notice.
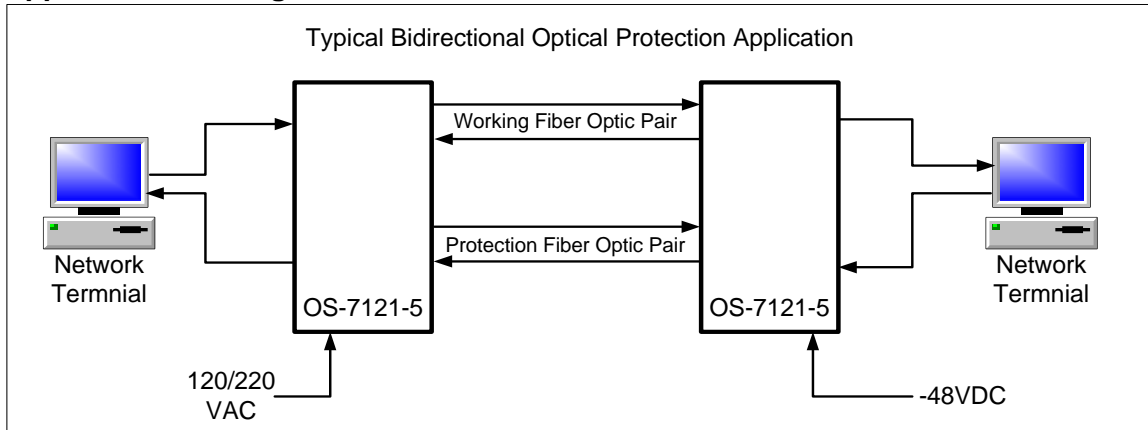
Important Features

- *Switching time < 10 ms*

- *Fail-safe return to primary with loss of power*

- *Stand-alone, DIN or Rack Mountable (same unit)*

- *Multimode or single-mode versions*

- *Power and Switch status indicators*
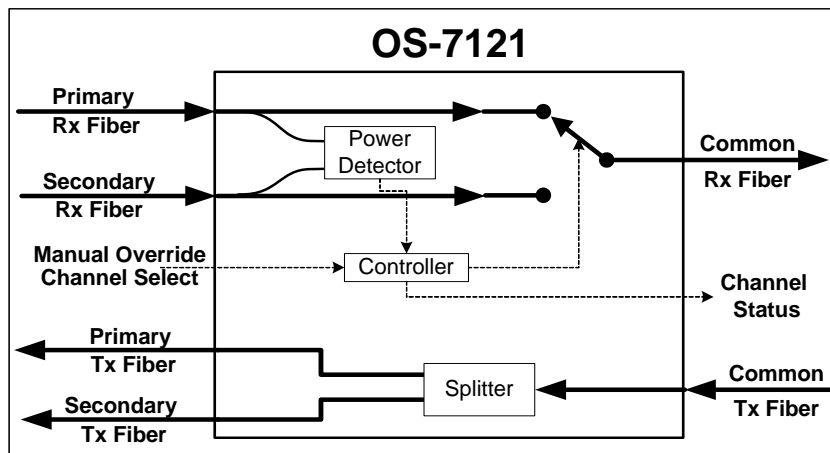
OS-7121

LuxLink® Fiber Optic Transmission Systems

www.LuxLink.com
USA 516-931-2800

Application Drawing

Typical Bidirectional Optical Protection Application

Network Termnial — OS-7121-5 — Working Fiber Optic Pair — Protection Fiber Optic Pair — OS-7121-5 — Network Termnial

120/220 VAC   -48VDC

If either or the working fibers are cut, the OS-7121 will automatically switch to the protection fiber pair.

Front & Rear Panel

Ordering Information; OS-7121-X   where "X" = Wavelength, Fiber Type, & Connector Type

-3 = 850/1310nm Multi-mode ST/PC   -4 = 850/1310nm Multi-mode- SC/PC
-5 = 1310/1550nm Single-mode SC/PC   -7 = 1310/1550nm Single-mode FC/PC

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