Optical Protection Switch   OS-4121

For Secure Fiber Optic Automatic Network Path Protection.

The OS-4121 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 path is switched mechanically and as a result, there is no data rate limitation or bandwidth limit on the fiber optic signal. In addition, since the optical signal is not demodulated the optical data is totally secure.

For applications where two independent optical channels need to be switched the OS-4221 is two OS-4121 switches in a single package.
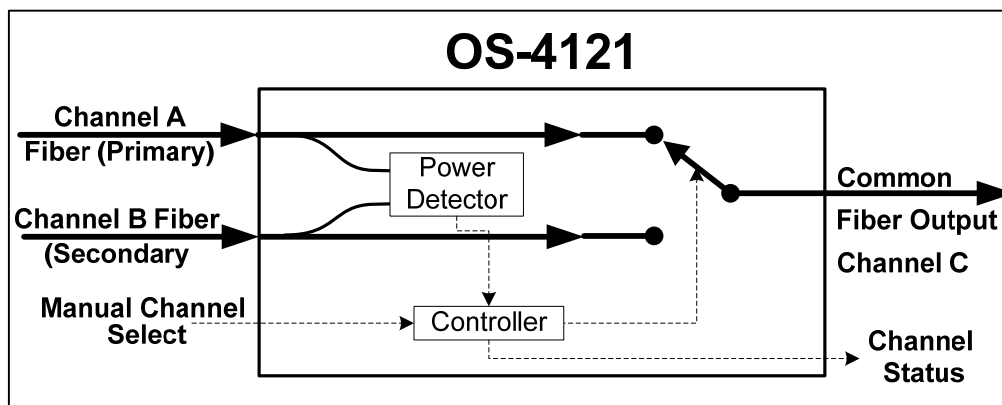
Technical Specifications   Important Features

Switching Time	< 10 ms
Back Reflection	< -50 dB
Insertion Loss	< 2.5 dB
Cross Talk	< -50 dB
Optical Input (maximum)	+26 dBm (400mw)
Switch Life cycle	> 1 Million cycles
Switch sensitivity	Selectable from -20 to -38 dBm
Sensitivity Data rate	DC to 3 Gb/s
Operating Wavelength	850/1310 or 1310/1550nm
Optical Connectors	ST, SC, or FCPC
Operating Temperature	0° to +70°C
Humidity	<95% non condensing
MTBF (per MIL HBK 217)	>120,000 hours
Power Requirements*	11-24 VAC/DC @150 mA
Size (mm)	5.0" (127) x 7.0" (178) x 1.0" (25.4)

* -48VDC with PS-4810
Note that all specifications are subject to change without prior notice.

- **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-4121

Channel A Fiber (Primary)

Channel B Fiber (Secondary

Manual Channel Select

Power Detector

Controller

Common Fiber Output Channel C

Channel Status

Ordering Information; OS-4121-X   where "X" = Wavelength/Fiber/Connector
-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

LuxLink®
Fiber Optic Transmission Systems

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