Optical Line Protection (OLP) FW6-OLPBD



The FW6-OLPBD optical protection board is designed by FIBERWDM for single-fiber bidirectional optical fiber line backup protection. Adopting advanced automatic optical path switching modules, it is an optical component for active/standby optical path switching in optical fiber communication systems. It can automatically detect the signal status of the active and standby optical paths and perform instantaneous optical path switching. When the working fiber cable suffers a complete cut-off failure, the system can keep operating normally, helping operators improve service quality.

The FW6-OLPBD optical line protection board is widely deployed for active/standby protection of various single-fiber bidirectional trunk lines and optical path switching in diverse networks. Its key advantages include direct processing and utilization of optical signals on the fiber link, compact size, cost-effectiveness and high reliability. It has found extensive applications in a wide range of optical transmission scenarios.

Product Introduction



Figure 1: OLPBD Optical Protection Board（Side A）

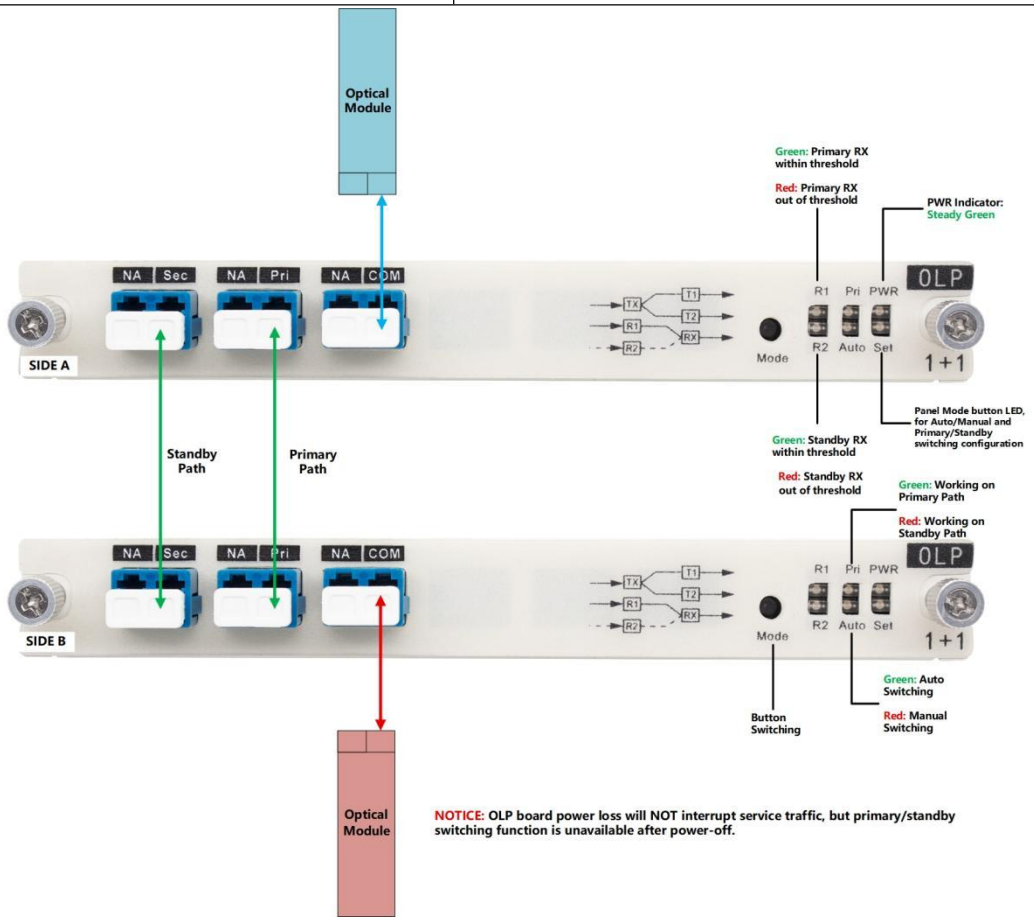
Product Features

- Supports single-mode optical line protection and single-fiber bidirectional protection mode.
- Supports 1+1 (dual-transmit and selective-receive) protection mode.
- Wide optical power monitoring range: -50 dBm ~ +25 dBm.
- Fast optical path protection switching time: ≤20 ms.
- Supports local and remote control.
- Compatible with SNMP-based unified network management platform; supported management interfaces include CLI (Telnet & Console), Web, and NetView (graphical user interface).

Product Specifications

Parameters			Specifications
Wavelength range			1310nm / 1490nm and 1550±50nm
Detection of the optical power range	Tx		-50dBm~+25dBm
	Rx		-50dBm~+10dBm
Insertion loss	1+1 Protection	Transmitter End	≤4.5dB
		Receiver End	≤2.5dB
Optical power measurement accuracy			≤0.5dB（-40dBm~+20dBm） ≤1.0dB（-50dBm~-40dBm）
Optical power resolution			≤0.01dB
Wavelength-dependent losses			≤0.25dB
Polarization-dependent losses			≤0.1dB
Switching Time			≤20ms
Return Loss			≥45dB
Crosstalk			≥55dB
Network Management			CLI, NetView, Web

Board Dimensions		156 (W) ×20 (H) ×225 (D) (mm)
Environment Requirement	Operating Temperature	-10℃~50℃
	Storage Temperature	-40℃~80℃
	Relative Humidity	5%~95% (non-condensing)
Safety and EMC Compliance		FCC, UL, CE, TUV, CSA standards
Power Consumption		<5W



Order Information

Part No.	Specifications
FW6OLPA	OLP Card， Optical line 1+1 protection LC/UPC,dual fiber used in used in FW6600 series take one slot
FW6OLPB	OLP Card， Optical line 1:1 protection LC/UPC,dual fiber used in used in FW6600 series take one slot
FW6OLPABD	OLP Card， Optical line 1+1 protection LC/UPC，Bi-direction used in used in FW6600 series take one slot