

WaveReady® LightProtector 530 Path and Equipment Protection Switch

LPR-530DWC1SA and LPR-530DWCASB



Key Features

- Highly configurable to fit network applications
- Compact, simple to install, rugged, plug-and-play module
- Low power consumption (2 W maximum)
- Convection cooled, no fans
- Automatic switch-back
- User-definable thresholds
- Supports redundant –48 V supplies through the DenseMount™ Shelf

Applications

- SMF fiber link protection
- Equipment protection

Compliance

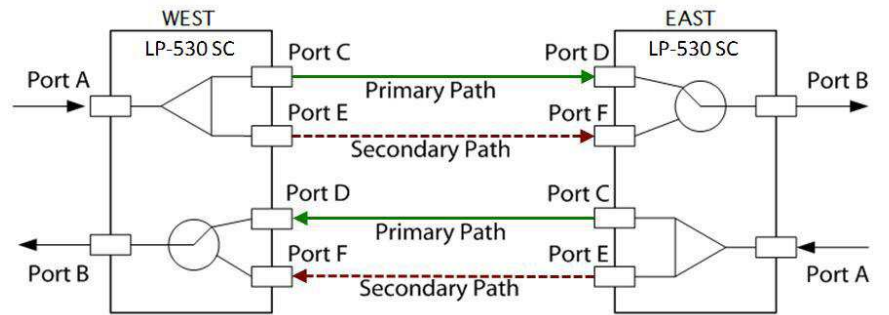
- NEBS Level 3
- UL 60950 Third Edition

The JDSU WaveReady LPR-530DWC1SA and LPR-530DWCASB path and equipment protection modules are rugged, plug-and-play, bi-directional protection switches for single mode fiber (SMF). They can be used for both equipment or fiber protection. A typical application would be the protection of multi-channel links on SMF.

The LPR-530DWC1SA and LPR-530DWCASB continuously monitor optical power on both its primary and secondary links. If optical power on the primary link drops below a certain threshold, the module switches traffic to the secondary link in less than 15 ms.

Two switching schemes are available. Manual operation allows for on-site or remote switching from one link to the other. Automatic operation in window switching mode allows users to control both the lower and upper level switch activation points. An automatic switch-back feature resets the module to its original configuration when the primary link power levels return to normal.

LPR-530DWC1SA features are highly configurable to fit most any network application. Remote configuration, using TL1 commands, is available through a WaveReady Communications Module and Ethernet interface on the WaveReady chassis. Local configuration is available through an RS-232 craft interface on a WaveReady Communications Module.

Typical Application

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Specifications

Parameter	Minimum	Typical	Maximum
General Optical Characteristics			
Wavelength for all ports	1290 to 1350 nm and 1463 to 1630 nm		
Switch Optical Characteristics			
Insertion loss (including connectors)	—	—	< 2 dB
Return loss (including connectors)	> 40 dB	—	—
Switching time	—	—	< 15 ms
Window switching mode			
Reference power level range (RPLR)	≥ -29 dBm	—	≤ -6 dBm
RPL accuracy	—	± 2 dB	—
Upper window switching range (UWSR) (user programmable, settable in 1 dB increments)	—	≥ 6 dB	—
Lower window switching range (LWSR) (user programmable, settable in 1 dB increments)	—	≥ 6 dB	—
Upper window switching limit (UWSL) (UWSL = RPL + UWSR)	—	—	≤ 0 dBm
Lower window switching limit (LWSL) (LWSL = RPL - LWSR)	≥ -35 dBm	—	—
Auto-switch-back hysteresis	2 dB	—	—
Switch-back hold time - SC variant	3 s	—	—
- LC variant	60 s	—	—
Switch type	Latching	—	—
Received power monitor accuracy (Received power range: -35 to 0 dBm)	—	± 2 dB	-
Maximum received power level	—	—	< 15 dBm
Coupler Optical Characteristics			
Insertion loss (including connectors)	—	—	< 4 dB
Return loss (including connectors)	> 40 dB	—	—
Electrical Characteristics			
DC supply voltage (Through the DenseMount Shelf. The DC power supply must be certified by a nationally recognized test laboratory (NRTL) with -48 V SELV output.)	—	-48 V	—
Power dissipation	—	—	2 W
Alarm relay signals	Dry contact. Relay closed when alarm is active.		
Physical Dimensions			
Size (H x W x L)	—	6.8 x 1.0 x 8.8 inches	—
DenseMount Shelf compliant (one slot)	(17.27 x 2.54 x 22.35 cm)		
Weight (approximate)	—	1.4 lbs (0.635 kg)	—
Environmental Characteristics			
Operating ambient temperature	-5 °C	—	70 °C
Storage temperature	-40 °C	—	85 °C
Relative humidity (non-condensing)	5 %	—	95 %
Interface			
Optical	Simplex SC/PC or Duplex LC/PC bulkheads, single-mode fiber (SMF)		
Electrical	96-pin connector (power, alarms, craft/remote interface)		
Craft	TL1 interface through a COM-200 module and a WR3100 or WR3500F shelf.		
Front Panel	Six LEDs: power (CARD), automatic operation mode (AUTO), primary path (PRI), secondary path (SEC), major alarm (MAJ), minor alarm (MIN). Two pushbutton switches: AUTO/MAN to select automatic or manual operation mode and THR/PRI/SEC to set the switching threshold or select the primary or secondary path in manual mode.		
Alarms	Relay, dry contact, MAJ (major) and MIN (minor). Relay closed when alarm is active.		

Ordering Information

For more information on this or other products and their availability, please contact your local JDSU account manager or JDSU directly at 1-800-498-JDSU (5378) in North America and +800-5378-JDSU worldwide or via e-mail at customer.service@jdsu.com.

Product Code	Model
LPR-530DWC1SA	LightProtector 530, SC/PC connectors
LPR-530DWCASB	LightProtector 530, LC/PC connectors

Associated Parts

Product Code	Description
COM-200ET003Y-480	Communication Module 200 (COM-200) with WaveReady System Release 4.8
DMS-3500FSE04	WaveReady 3500F-HP 7RU chassis