Cisco Prisma II Optical Switch Modules

Description

If you're looking for optical path redundancy and using the Cisco® Prisma® II best-in-class architecture, the Prisma II Optical Switch (OPSW) is the right choice. The high-density OPSW (Figure 1) is a 1 x 2 switch designed to fit directly into a Prisma XD chassis or, with a host module adaptor, a standard Prisma II chassis.

Figure 1. Optical Switch Module

The optical switch module in the Prisma II XD chassis module form factor features Subscriber Connector/Angle-Polished Physical Contact (SC/APC) connectors for input and output optical connections. For use in the full-height Prisma II chassis, a host module adaptor is available.

Features

- High-density design that allows up to 16 OPSWs in a Prisma II XD chassis or up to 24 in a standard Prisma II chassis with redundant power supplies
- Energy-efficient design with low power consumption per module
- Optical switches allow for network primary/secondary redundancy
- Multiple setup and control options include:
  - Local control through a Local Craft Interface (LCI)
  - Local monitoring through an Intelligent Communications Interface Module (ICIM)
  - Remote monitoring through a ROSA status monitoring and control element manager
- OPSW modules have multiple modes of operation and user-settable trigger values

Table 1 gives specifications of the OPSW.

Table 1.   OPSW Specifications

Optical	Units	Value	Notes
Nominal Optical Wavelength	nm	1550 (±20)	
Input Optical Power Range	dBm	-10 to +14	1
Insertion Loss	dB	≤ 2.0	2
Inputs	-	Primary (1) Secondary (1)	
Output	-	Common	
Cross-Talk	dB	≥ 55	
Return Loss	dB	≥ 50	3
Optical Interfaces		SC/APC (3)	
Electrical			
Sense and Switch Time (from Primary to Secondary state)	ms	< 50	
Power Consumption @ 24 VDC (maximum)	W	3	
Switching Threshold	dB	-10 to +14 (user changeable)	
Restore Threshold	dB	0.5 to 9.5	
Wait Time before Restoration	seconds	0 to 600 in 1-second increments	
Environmental			
Operating Temp Range **Full Specs** **Storage**	°C °F °C °F	-20 to +65 -4 to +149 -40 to +85 -40 to +185	
Humidity Range	%	0 to 95	4
Mechanical			
Length x Height x Width	in. cm	8.8 x 3.48 x 1.03 22.35 x 8.84 x 2.62	

Notes:

1. Optical input power of -3.0 dBm or greater is required to maintain the full user-settable threshold range. When the optical input power is less than -3.0 dBm, there is a 1-for-1 reduction in threshold range.

2. Insertion loss of module with 0.25-dB loss per mated connector pair for a total connector loss of 0.5 dB. Actual connection loss may be less or more depending on mating connector compatibility.

3. With APC connectors.

4. Noncondensing external to the Prisma II or XD chassis.

Ordering Information

The part number for the OPSW is shown in Table 2. Please consult with your Account Representative, Customer Service Representative, or Systems Engineer to determine the best configuration for your particular application.

Table 2.   Part Number for OPSW

Description	Part Number
Optical Switch	4037229

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