

PTS-FOSW

Fiber Optic Switch Modules

Key Features

- Fast switching times with high repeatability
- Ideal for testing of multi-port fiber optic components
- Wide variety available—1x2, 2x2, 1x4, 1x8, 1x16
- Select switches with SM or MM fibers
- Variety of fiber connector styles available

Accessories

Please see the Fiber Optics and Accessories Section for fiber optic patchcords, adaptors, and many more accessories that can be used with these modules.

- 1) Call Newport for availability of versions with higher channel count.
- 2) Without connectors.
- 3) Optimum value after 1 hour warm-up.
- 4) Only IS type available.
- 5) Multimode 1xN's do not have APC connector offering.
- 6) 1x16 is double-wide.

When ordering a Fiber Optic Switch Module, please specify the following Model number:

Order example: PTS-FOSW-14IS55

1x4 Fiber Optic Switch Module with 9/125 SMF that operates at 1270–1630 nm with FC/APC connectors



The PTS-FOSW Fiber Optic Switch

Modules feature fast switching times, high repeatability and low polarization dependent loss (PDL). These switches are optically passive which make them bi-directional and transparent to bit rates or data formats.

The PTS-FOSW modules are ideal for testing multiple passive fiber optic devices or multi-port devices with a single light source and a single optical meter. Components or instruments can also be selectively bypassed.

Remote switch control with a PC enables automated test sequences, used in long term burn-in and environmental testing.

The switch module is offered in a wide variety of standard port configurations—1x2, 2x2, 1x4, 1x8 and 1x16—allowing the user to choose the appropriate module for the specific task at hand. Various fiber optic connector options are available.

Specifications

Switch Type	1x2 / 2x2 ⁽⁴⁾		1xN (N = 4,8,16) ⁽¹⁾⁽⁵⁾	
	Typ.	Max.	Typ.	Max.
Wavelength (nm)	1270–1630 (SM or MM) or 750–940 (MM only)			
Insertion Loss (dB) ⁽²⁾ (SM)	0.6	1.2	0.4	0.9
Return Loss (dB) ⁽²⁾	60	>55	60	>55
Polarization Dependent Loss (PDL) (dB) ⁽²⁾ (PDL)	0.06	0.1	0.02	0.05
Repeatability, Sequential (dB) ⁽³⁾	±0.03	±0.05	±0.005	±0.02
Repeatability, Random (dB) ⁽³⁾			±0.01	±0.05
Isolation/Crosstalk (dB)	-65	-60	-90	-80 dB
Switching Time, One Channel (ms)	5	8	75	
Switching Time, Additional Channels (ms)			15	
Maximum Input Power (mW)		300		300 mW
Fiber Type	62.5/125 µm MMF or 9/125 µm SMF			
Dimensions (H x W x D) [in. (cm)] ⁽⁶⁾	5.23 (13.3) x 1.39 (3.5) x 9.09 (23.1)			
Weight [lb (kg)]	1.75 (0.8)			
Operating Temperature	0°C to 40°C			
Storage Temperature	-20°C to 60°C			

Ordering Information

PTS-FOSW-□□ □□ □□		
Switch Type	Fiber Type and Wavelength Range	Connector Style
12=1x2	IS=9/125 SMF 1270–1630 nm	25=ST/PC
22=2x2	IM=62.5/125 MMF 1270–1630 nm	45=FC/PC
14=1x4	SM=62.5/125 MMF 750–940 nm	55=FC/APC
18=1x8		65=SC/PC
16=1x16		75=SC/APC