

1x4 PM Solid-State Fiberoptic Switch

Product Description

The μ s-series 1x4 solid-state fiber optical switch connects optical channels by redirecting an incoming optical signal into a selected output optical fiber. The switching of the optical light is realized by utilizing Faraday Effect. This is achieved using a patent protected non-mechanical configuration with solid-state all-crystal design which eliminates the need for mechanical movement. The μ s-series fiber optic switch is designed to meet the most demanding switching requirements of reliability, durability, response, and continuous high frequency switching operation.

Specifications

Item	Unit	Parameters	Notes
		Bidirectional	
Wavelength Range	nm	1525 ~ 1565	
Insertion Loss	dB	1.2 (Typ.); 1.8 (Max.)	
PDL	dB	0.2 (Typ.); 0.3(Max.)	
Return Loss	dB	≥ 50 (Typ.55)	
Crosstalk	dB	≥ 40 (Typ.50)	
ER	dB	≥ 18 (Typ.20, Max 25)	
PMD	ps	0.2	
Repeatability	dB	+/- 0.01	
Durability	cycles	> 30 Billions	
Switching Speed	μ s	200 ~ 400	
Switch Type		Latching	
Operating Temperature	$^{\circ}$ C	-5 ~ 70	
Storage Temperature	$^{\circ}$ C	-40 ~ 85	
Maximum Optical Power	mW	500	
Dimension(L×W×H)	mm	41X21X7.5	

*. All the specifications are based on the devices without connector, and guaranteed over wavelength, polarization and temperature.

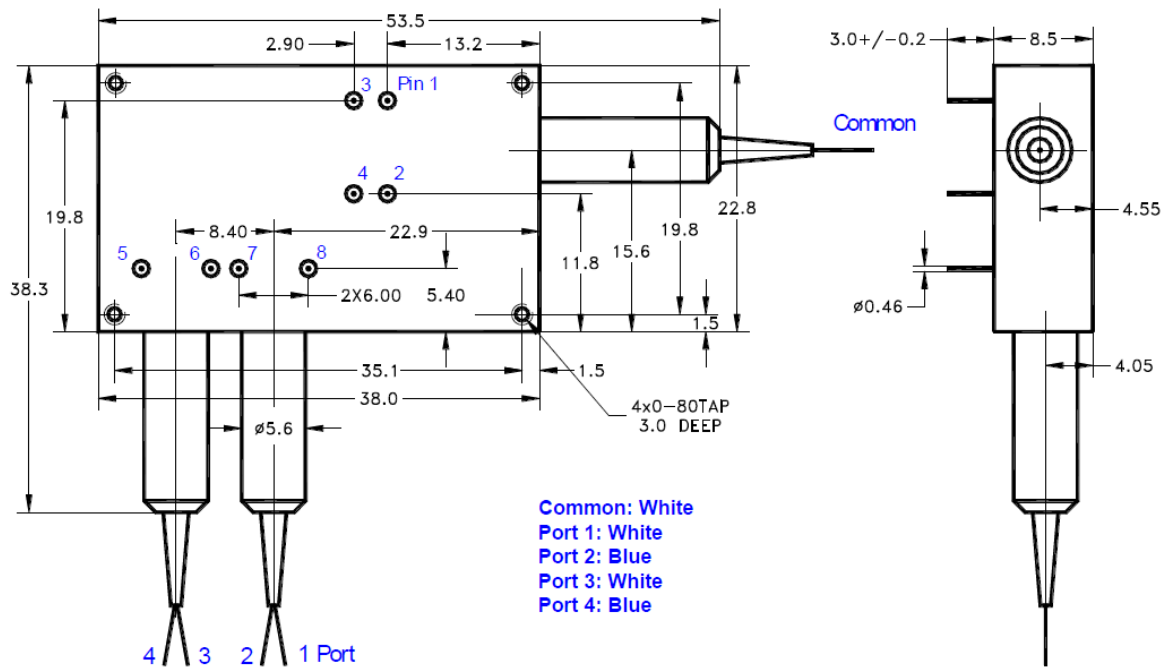
**. Specifications are subject to change without notice.

Electrical Specifications

Parameter	Specification	Unit
Switching Speed	200~400	μ s
Switching Voltage(VCC)	2.5 (+/-5%)	V
Switching Current	< 200	mA
Pulse Width(typical)	0.3	ms
Claim Frequency	2000	Hz

Each switching point is actuated by applying a voltage pulse. Applying one polarity pulse, one light path will be connected and latched to the position. Applying a reversed polarity pulse, another light path will be connected and latched to the position after pulse removed.

Mechanical Dimensions (mm)



Bidirectional series 1X4 or 4X1 Pin Definition

Pin No.	pin1	pin2	pin3	pin4	pin5	pin6	pin7	pin8
IN←→OUT1	+	-	+	-	-	+	+	-
IN←→OUT2	-	+	-	+	-	+	+	-
IN←→OUT3	+	-	-	+	+	-	-	+
IN←→OUT4	-	+	+	-	+	-	-	+

“+”: 2.25~2.75 V pulse, “-”: Ground.

Ordering Information: SSW-1XN-A-B-C-D-E

N	A	B	C	D	E
Chanel	Mode	Wavelength	Fiber Diameter	Fiber Length	Connector
4	SM:9/125um PM:PM fiber	13: 1310nm 15: 1550nm	25:250um 90:0.9mm	05:0.5m 10:1.0m 15:1.5m	OO:None FP: FC/PC FA: FC/APC SP: SC/PC SA: SC/APC LP: LC/PC LA: LC/APC