

## Features

- No moving parts, best reliability
- Ultra fast switching speed
- Extremely stable latching mode
- Low power consumption
- Easy to route-all fibers on one end
- Exceptional durability and stability



## Applications

- Optical switching
- High speed protection
- System monitoring
- Test & measurement
- Fiber-optics sensing system

## Product Description

The microsecond-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, and allows genuine simultaneous bi-directional traffic. The microsecond fiber optic switch is designed to meet the most demanding switching requirements of reliability, durability, response, and continuous high frequency switching operation.

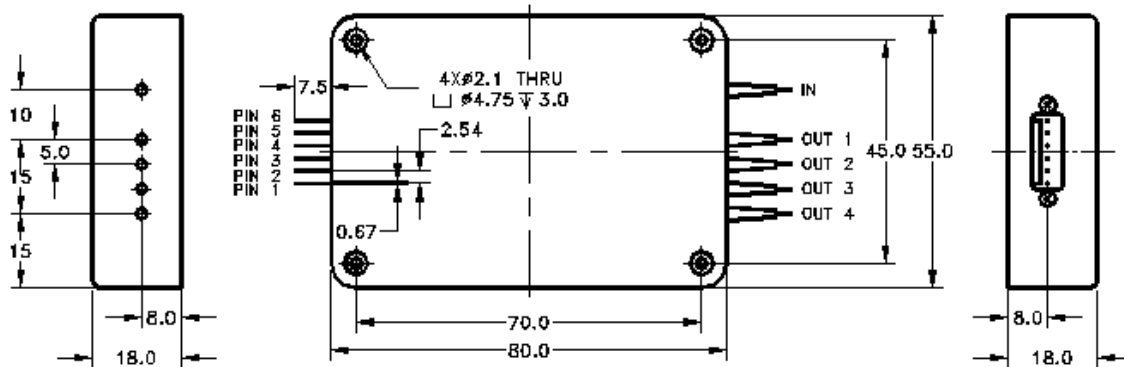
## Specifications

Item	Unit	Parameters	Note
Wavelength Range	nm	1525~1565	Other band optional
Insertion Loss	dB	2.0 (Typ.); 2.4 (Max.)	
PDL	dB	≤0.20	
Return Loss	dB	≥30	
Crosstalk	dB	≥38	≥45dB @ 23°C
PMD	ps	≤0.30	
Repeatability	dB	±0.02	
Durability	cycles	>10 Billions	
Switching Speed	μs	10 ~ 400	The switching speed is optional
Maximum Optical Power	mW	500	
Storage Temperature	°C	-40 ~ 85	
Operating Temperature	°C	-5 ~ 70	Wider Operating Temperature Range is optional
Dimension( L×W×H )	mm	80 × 55 × 18	
Fiber Type		SMF-28e with 900μm tight tube	

\*. Losses include one connector, and all the specifications are guaranteed over wavelength, polarization and temperature.

\*\* Specifications are subject to change without notice

## Dimensions drawing (mm)



## Electrical specifications:

Parameter	Specification		Unit
Switching Speed	200~400	10~20	μs
Switching Voltage (VCC)	4.5~5.5	6.5~7.5	V
Switching Current	< 200	< 750	mA
Pulse Width(typical)	500	15	μs
Claim Frequency	< 1000	< 3000	Hz

\* for electrical specifications related to other switching speed, please contact Primanex.

## Pin definition:

Pin No.	Pin1	Pin2	Pin3	Pin4	Pin5	Pin6
Definition	Vcc	GND	Ctrl 2	Ctrl 1	-	-

## Pin control signal corresponding to switching status:

Ctrl 1	0	1	0	1
Ctrl 2	0	0	1	1
Optical Path	IN ↔ OUT 1	IN ↔ OUT 2	IN ↔ OUT 3	IN ↔ OUT 4

## Ordering information (Example: BFMS3-14011121)

**BFMS**  **-14**      **2**

RoHS Compliance	Switch Speed	Operating Wavelength	Pins Type	Dimension	Fiber Length	Connector Type
0、Non-compliant	0、200~400 μs	1、C band 1525~1565 nm	1、Standard Pins	1、Standard	1、0.5 m+/-0.1m	0.No connector
1、with 1 waiver	1、20~200 μs	2、L Band 1565-1615 nm	2、Custom	2、Others	2、1.0 m+/-0.1m	1、FC/UPC
2、with 2 waivers	2、10~20 μs	3、C & L Band			3、Custom	2、FC/APC
3、with 3 waivers	3、Others	4、Others				3、SC/UPC
4、without waivers						4、SC/APC
						5、LC/PC
						6、MU/PC
						7、Others

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