

Features

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



Applications

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

Product Description

The microsecond-series 1x2 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 microsecond fiber optic switch is designed to meet the most demanding switching requirements such as high reliability and durability, ultra-fast response, and high-frequency continuous switching operation.

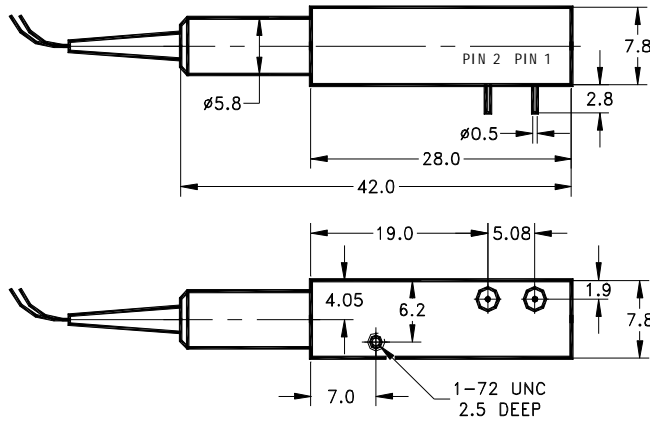
Specifications

Item	Unit	Parameter	Note
Wavelength Range	nm	1525~1565	Other band optional
Insertion Loss	dB	0.8 (Typ.); 1.1 (Max.)	
PDL	dB	0.1 (Typ.), 0.2 (Max.)	
Return Loss	dB	≥40	
Crosstalk	dB	≥40	
PMD	ps	≤0.2	
Repeatability	dB	±0.01	
Durability	cycles	>10 Billions	
Switching Speed	μs	10~400	
Maximum Optical Power	mW	500	
Operating Temperature	°C	-5 ~ 70	
Storage Temperature	°C	-40 ~ 85	
Dimension(L×W×H)	mm	42 × 7.8 × 7.8	
Fiber Type	N/A	SMF-28e	

* All the specifications are based on the devices without connector, and 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	10~30	μs
Switching Voltage (VCC)	4.5~5.5	6.5~7.5	V
Switching Current	< 100	< 350	mA
Pulse Width(typical)	1000	15	μs
Claim Frequency	<800	< 3000	Hz

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

Pin control signal corresponding to switching status table

Pin1	Pin2	Optical Path
1(Voltage = VCC)	0(Voltage = GND)	COMM → CH #1
0(Voltage = GND)	1(Voltage = VCC)	COMM → CH #2
1(Voltage = VCC)	0(Voltage = GND)	CH #2 → COMM
0(Voltage = GND)	1(Voltage = VCC)	CH #1 → COMM

Ordering information (Example: RFMS0-12R1121110)

RFMS	- 12R						
RoHS Compliance	Operating Wavelength	Pins Type	Fiber Type	Connector Type	Fiber Length	Dimension	
0、Non-Compliant	1、 C band 1525~1565 nm	1、 Standard Pins	1、 250μm fiber	0.No connector	1、 0.5+/-0.1 m	1、 Standard	
1、 Compliant	2、 L Band 1565-1615 nm	2、 Others	2、 900μm fiber	1、 FC/UPC	2、 1.0+/-0.1m	2、 Others	
	3、 C & L Band		3、 Others	2、 FC/APC	3、 Others		
	4、 Others			3、 SC/UPC			
	Switch Speed			4、 SC/APC			
	1、 200~400 μs			5、 LC/PC			
	2、 10~30 μs			6、 MU/PC			
	3、 Others			7、 Others			