

# $2 \times 2$ Add/Drop MagLight<sup>TM</sup> Optical Switch

*M-O Tech*® for Optical Network

## Features

- No moving parts, best reliability
- Ultra fast switching speed
- Extremely stable latching mode
- Low power consumption

Network Switching

Test & Measurement

Fiber Sensor System

Instrumentation

Configurable Add/Drop

Network Protection and Restoration

• Exceptional reliability and stability



## **Product Description**

Primanex MagLight 2x2 switch is all solid-state switch without any moving parts. 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 organic materials. The microsecond fiber optic switch is designed to meet the most demanding switching requirements of reliability, fast response, and continuous switching operation.

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Item	unit	Parameter	Note
Wavelength Range	nm	1525~1565	Other band optional
Insertion Loss	dB	0.90(Typical) ; 1.20(Max)	
PDL	dB	0.10(Typical) ; 0.25(Max)	
Return Loss	dB	≥50	
Crosstalk	dB	≥40	≥45dB @ 25°C
Repeatability	dB	$\pm 0.01$	
Durability	Cycles	>10 Billions	
Switching Speed	μs	10~400	
Maximum Optical Power	mW	500	
Storage Temperature	°C	-40 ~ 85	
Operating Temperature	°C	-5 $\sim$ 70	
Dimension( $L \times W \times H$ )	mm	$69 \times 8.2 \times 8.2$	
Fiber Type		SMF-28e	
Fiber length	m	$1.0 \pm 0.1$	

## **Specifications**

Applications

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\*. All the specifications are based on the devices without connector.

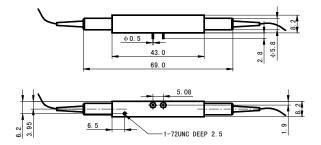
\*\* Specifications are subject to change without notice



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## **Dimensions drawing (mm)**



### **Electrical Specifications**

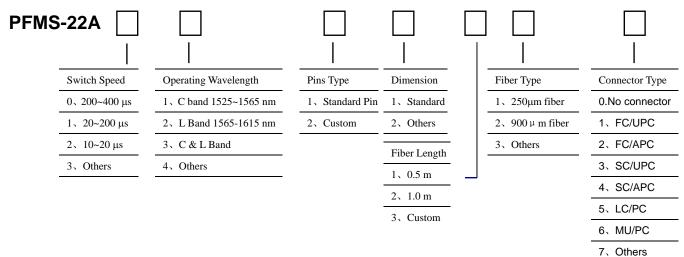
Parameter	Specification		Unit
Switching Speed	200~400	10~20	μs
Switching Voltage (VCC)	4.5~5.5	6.5~7.5	V
Switching Current	< 200	< 500	mA
Pulse Width	< 500	< 15	μs
Claim Frequency	< 1000	< 3000	Hz

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

### Pin Control Signal Correspond to Switching Status Table

Pin1	Pin2	The Optical Output Port
1(Voltage = VCC)	0(Voltage = GND)	IN1 $\rightarrow$ OUT 1; IN2 $\rightarrow$ OUT 2
O(Voltage = GND)	1(Voltage = VCC)	IN2→OUT 1

#### Ordering information (Sample: PFMS-22A0111210)



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