1x2 or 2x1 MagLight™ Optical Switch

Photonics Beyond Boundary

Features

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

Applications

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

Product Description

Primanex MagLight ™ 1x2 or 2x1 optical switch is an all solid-state devcie 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. The microsecond fiber optic switch is designed to meet the most demanding switching requirements of reliability, durability, response, and continuous high frequency switching.

Specifications

Item	Unit	Parameters		Notes
		Unidirectional	Bidirectional	
Wavelength Range	nm	1525~1565		Other band optional
Insertion Loss	dB	0.8 (Typ.); 1.1 (Max.)	1.0 (Typ.); 1.3 (Max.)	Add 0.4dB for high-power version
PDL	dB	0.1 (Typ.); 0.2 (Max.)		
Return Loss	dB	40	30	
Cross-talk	dB	40	35	Typical >50dB
PMD	ps	0.2		
Repeatability	dB	+/- 0.01		
Durability	cycles	> 30 Billions		
Switching Speed	μs	Regular (200~400); Ultra-fast (10~30)		Other speed optional
Storage Temperature	^{0}C	-40~85		
Operating Temperature	^{0}C	-5~70		
Maximum Optical Power	mW	500 (for high-power version: 5W for CW laser, 700W of peak power for ns-scale pulsed laser)		
Dimension(L×W×H)	mm	39×9.0× 9.5		

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

**. Specifications are subject to change without notice.

Dimensions Drawing (mm)

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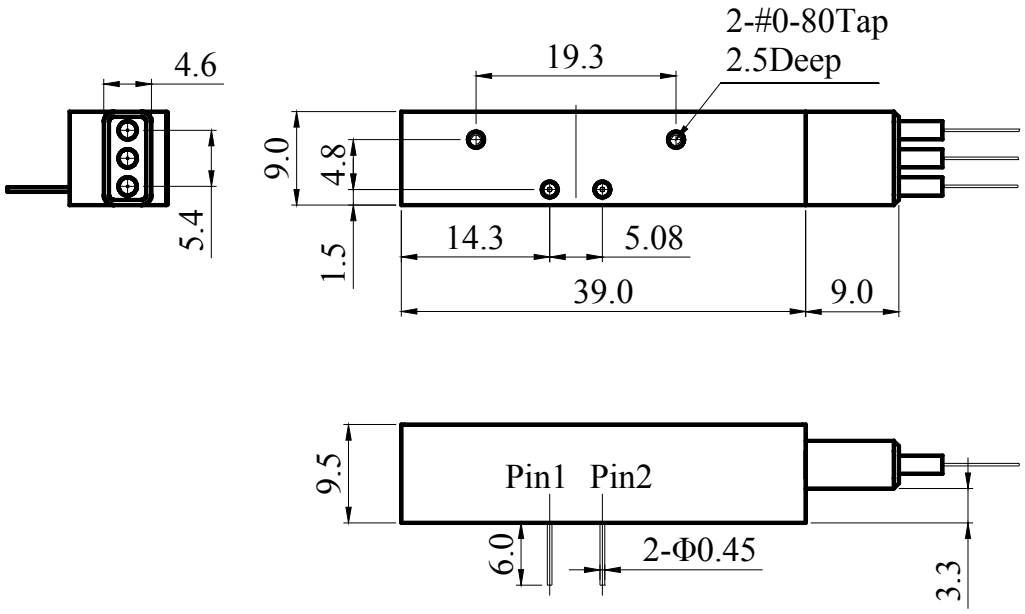

Electrical Specifications

Parameters	Specifications		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
Driving Mode	Voltage or Pulse Driving	Pulse Driving	NA
Pulse Width (typical)	1000	15	μs
Claim Frequency	<800	< 3000	Hz

Notes:

- Primanex provides optional switch driving board at additional charge;
- It is recommended to use Primanex switch driving board for the Ultra-fast switch;
- To avoid damaging the Ultra-fast switch, Primanex recommends to set the current limit below 800mA when the power supply voltage is set at 6.5V~7.5V.

Pin control signal corresponding to switching status table

Pin1	Pin2	The Optical Output Port
1(Voltage = VCC)	0(Voltage = GND)	ON
0(Voltage = GND)	1(Voltage = VCC)	OFF

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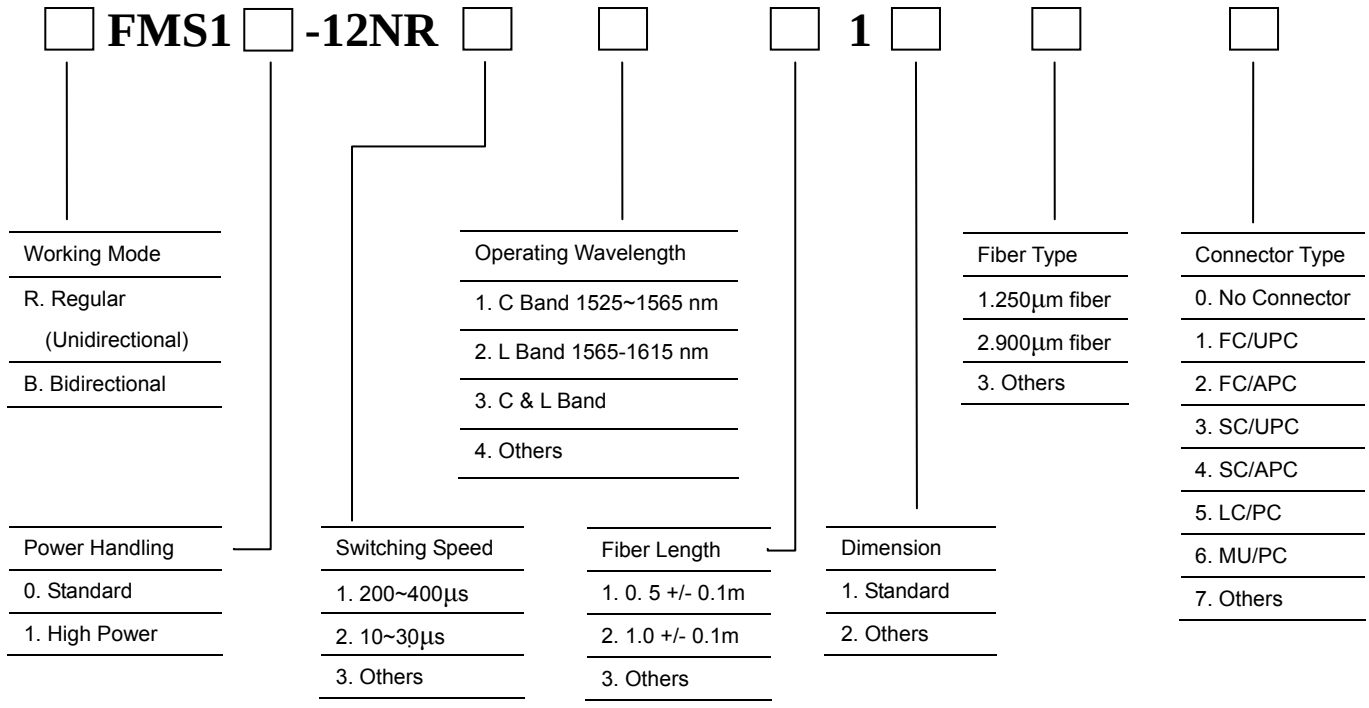
Ordering Information(Example:RFMS10-12NR1121110)



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