

1x8 MO-Switch

Features

- No moving parts, best durability
- Ultra fast switching speed
- Extremely stable latching mode
- 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

1x8 optical switch is an all solid-state device 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.

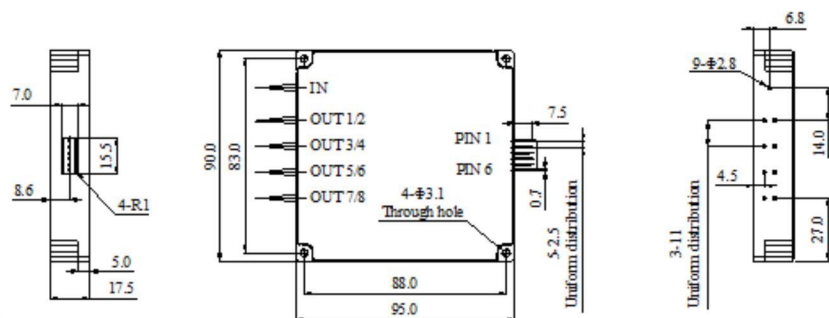
Specifications

Item	Unit	Parameters		Notes
		Unidirectional	Bidirectional	
Wavelength Range	nm	1525 ~ 1565		
Insertion Loss	dB	2.8 (Typ.); 3.2 (Max.)	3.0 (Typ.); 3.5 (Max.)	
PDL	dB	0.2 (Typ.); 0.3 (Max.)		
Return Loss	dB	40	40	
Cross-talk	dB	40	35	
PMD	ps	0.3		
Repeatability	dB	+/- 0.01		
Durability	cycles	Regular (>100 Billions) ; Ultra-fast (>1000 Billions)		
Switching Speed	μs	Regular (200~400); Ultra-fast (10~30)		
Operating Temperature	°C	-5 ~ 70		
Storage Temperature	°C	-40 ~ 85		
Maximum Optical Power	mW	500		
Dimension(L×W×H)	mm	90×76×17.5		

Note:

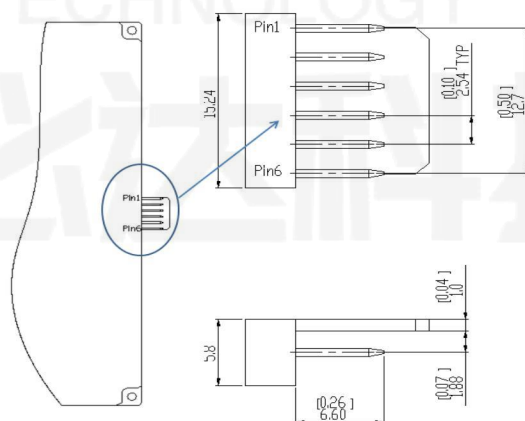
1. All the specifications are based on the devices without connectors, and guaranteed over wavelength, polarization and temperature.
2. Specifications are subject to change without notice.

Dimensions Drawing (mm)



Electrical Connector Specifications:

Vendor: Molex (P/N: 0022057068)
Housing: Natural nylon, UL 94V-O
Contact: Brass, 0.64 mm (.025") square
Plating: Tin



Port Mark & Pin Assignment:

Ports& Pins	Assignment	Note
IN	The optical input port	-
OUT1, OUT2, OUT3, OUT4, OUT5, OUT6, OUT7, OUT8	The optical output port1, 2, 3, 4, 5, 6, 7, 8	-
Pin 1	VCC	5V
Pin 2	GND	-
Pin 3	Ctrl 0	5V TTL
Pin 4	Ctrl 1	5V TTL
Pin 5	Ctrl 2	5V TTL
Pin 6	NA	-

Electrical Specifications:

Parameter	Specification	Unit
Power Supply Voltage(VCC)	5 (+/-5%)	V
Inrush Current	<700	mA
Claim Frequency	600	Hz

Pin Control Signal Corresponding to Switching Status:

Table1: Pin control signal corresponding to switching status for unidirectional switch

Ctrl 0	Ctrl 1	Ctrl 2	Optical Path
0	0	0	IN → OUT1
0	0	1	IN → OUT2
0	1	0	IN → OUT3
0	1	1	IN → OUT4
1	0	0	IN → OUT5
1	0	1	IN → OUT6
1	1	0	IN → OUT7
1	1	1	IN → OUT8
0	0	0	OUT8 → IN
0	0	1	OUT7 → IN
0	1	0	OUT6 → IN
0	1	1	OUT5 → IN
1	0	0	OUT4 → IN
1	0	1	OUT3 → IN
1	1	0	OUT2 → IN
1	1	1	OUT1 → IN

Table2: Pin control signal corresponding to switching status

Ctrl 0	0	0	0	0	1	1	1	1
Ctrl 1	0	0	1	1	0	0	1	1
Ctrl 2	0	1	0	1	0	1	0	1
Optical Path	IN ↔ O1	IN ↔ O2	IN ↔ O3	IN ↔ O4	IN ↔ O5	IN ↔ O6	IN ↔ O7	IN ↔ O8

Ordering Information (Example: UMS-8111210)

UMS-8	☐	☐	☐	☐	☐	☐
	Working Mode	Switching Speed	Operating Wavelength	Fiber Tuber	Fiber Length	Connector Type
	1.Regular 2. Bidirectional	1.200~400us 2.10~30us 3. Others	1.CBand1525~1565 nm 2. L Band 1565-1615 nm 3. C & LBand 4. Others	1.250μm fiber 2. 900μm fiber 3. Others	1.0.5 +/- 0.1 m 2. 1.0 +/- 0.1 m 3. Others	0.No Connector 1. FC/UPC 2. FC/APC 3. SC/UPC 4. SC/APC 5. LC/PC 6. MU/PC 7. Others