

Product Description

-  1x2 or 2x1 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

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



Specifications

Item	Unit	Parameters		Notes
		Unidirectional	Bidirectional	
Wavelength Range	nm	1525~1565		Other band optional
Insertion Loss	dB	0.9(Typ.);1.2(Max.)	1.0(Typ.); 1.5(Max.)	
PDL	dB	0.1 (Typ.);0.2(Max.)	0.15(Typ.);0.3(Max.)	
Return Loss	dB	≥40(Typ.50)	≥30(Typ.45)	
Cross-talk	dB	≥40(Typ.50)	≥30(Typ.45)	
PMD	ps	0.2	0.3	
Repeatability	dB	+/- 0.01		
Durability	cycles	>100Billions		
Switching Speed	μs	Regular (200~400); Ultra-fast (10~30)		Other speed optional
Storage Temperature	°C	-40~85		
Operating Temperature	°C	-5~70		
Maximum Optical Power	W	≤5		High power optional
Dimension(L×W×H)	mm	28×9.5× 7.8		

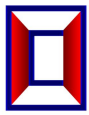
Note:

- 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.

Electrical Specifications

Parameters	Specifications		Unit
	Regular	Ultra-fast	
Switching Speed	200~400	10~30	μs
Switching Voltage (VCC)	5 (+/-5%)	6.0~7.0	V
Switching Current	< 100	< 350	mA
Driving Mode	Voltage or Pulse Driving	Pulse Driving	NA
Pulse Width (typical)	1000	200	μs
Claim Frequency	<800	< 3000	Hz

Note:1.The recommended pulse width < 200us, if the pulse width of 50us is recommended to adjust the voltage to 7v.



2. When the switch is used for high-frequency switching, it is not recommended to use for a long time, if the need for a long time high-frequency switching, it is recommended to use a cooling device.

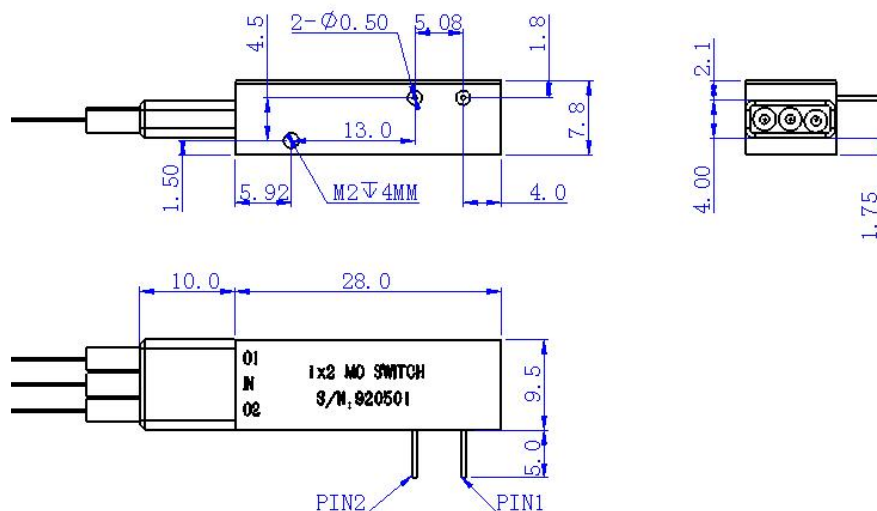
Unidirectional Pin control signal corresponding to switching status table

Pin1	Pin2	The Optical Output Port
1(Voltage =VCC)	0(Voltage =GND)	IN→OUT1
0(Voltage =GND)	1(Voltage =VCC)	IN→OUT2
1(Voltage =VCC)	0(Voltage =GND)	OUT2→IN
0(Voltage =GND)	1(Voltage =VCC)	OUT1→IN

Bidirectional Pin control signal corresponding to switching status table

Pin1	Pin2	The Optical Output Port
1(Voltage =VCC)	0(Voltage =GND)	IN↔OUT1
0(Voltage =GND)	1(Voltage =VCC)	IN↔OUT2
1(Voltage =VCC)	0(Voltage =GND)	OUT2↔IN
0(Voltage =GND)	1(Voltage =VCC)	OUT1↔IN

Mechanical Dimensions (Unit:mm)



 Ordering Information: HC-HPUMS-A-B-C-D-E-F

A	B	C	D	E	F
Working Mode	Switching Speed	Operating Wavelength	Fiber Tuber	Fiber Length	Connector Type
1.Unidirectional	1.200~400us	1.CBand1525~1565 nm	1.250μm fiber	1.0.5 +/- 0.1 m	0.No Connector
2.Bidirectional	2.10~30us	2. L Band 1565-1615 nm	2.900μm fiber	2. 1.0 +/- 0.1 m	1.FC/UPC
	3. Others	3.C & L Band	3.Others	3. Others	2.FC/APC
		4.Others			3.SC/UPC
					4.SC/APC
					5.LC/PC
					6.MU/PC
					7.Others