



1×2 Solid-State Fiber optic Switch

professional supplier of fiber optical component

The 1x1 and 1x2 solid-state fiber optical switch connects optical channels by redirecting an incoming optical signal into a selected output fiber. This is achieved using patented non-mechanical configurations and activated via an electrical control signal. Latching operation preserves the selected optical path after the drive signal has been removed. The all solid state CL 1x1,1x2 fiber optic switch features low insertion loss, high extinction ratio, high channel isolation, and extremely high reliability and repeatability. It is designed to meet the most demanding switching requirements of continuous operation without failure, longevity, operation under shock/vibration environment and large temperature variations, and fast response time. The switch also has build-in circulator and isolator functions. Electronic driver is available for this series of switches.

◆ Features

- Low Insertion Loss
- Wide Wavelength Range
- Low Crosstalk
- High Stability, High Reliability
- Epoxy-free on Optical Path
- Latching and Non-latching



◆ Application

- Metropolitan Area Network
- R&D in Laboratory
- System Monitoring
- Configurable OADM

◆ Performance

Parameters		SOSW-1×2
Wavelength Range	nm	1295~1325,1520~1580
Testing Wavelength	nm	1310/1550
Insertion Loss	dB	Typ:0.7 ,Max:1.0
Return Loss	dB	≥50
Crosstalk	dB	≥45
PDL	dB	≤0.10
Polarization Mode Dispersion	ps	≤0.20
TDL	dB	≤0.25
Optical Power Handling	mw	300
Switch Speed (rise, fall)	us	50~200
Repetition Rate	Hz	2K
Operation Temperature	°C	-40 ~ +85
Storage Temperature	°C	-40 ~ +85
Dimension	mm	(L)58.2×(W)8.4×(H)8.4(±0.2)



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◇ Electrical Driving Information

The switch is actuated by applying a voltage pulse. Applying one polarity pulse, one light path will be connected and latched to the position. Applying a reversed polarity pulse, another light path will be connected and latched to the position after pulse removed.

Parameter	Minimum	Typical	Maximum	Unit
Drive Voltage*	4.5	5	5.5*	V
Drive Current	110	140	195	mA
Pulse Duration	0.2	0.3	0.5	ms

Driving kit with USB and TTL interfaces and Windows TM GUI is available. We also offer RS232 interface as an option – please contact coreray sales.

2x1 Switch

Optical Path	Pin 1	Pin 2
Port 2→Port 1	5V Pulse	GND
Port 3→Port 1	GND	5V Pulse

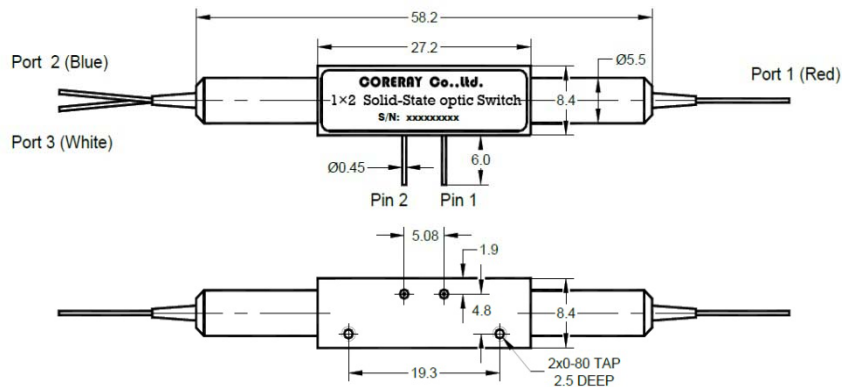
1x2 Switch

Optical Path	Pin 1	Pin 2
Port 1→Port 2	GND	5V Pulse
Port 1→Port 3	5V Pulse	GND

* The typical drive voltage of single stage is 2.5V.

* Over this value will damage the device.

◇ Mechanical Dimensions (mm)



◇ Ordering Information: SOSW-A-B-C-D-E-F-G

A	B	C	D	E	F	G
Type	Mode	Wavelength	Switch	Fiber Diameter	Fiber Length	Connector
1X1 1X2 2X1	SM:9/125um	13: 1310nm 15: 1550nm	2: Dual Stage 0 : Special	25: 250um 90: 900um	05: 0.5m 10: 1.0m 15: 1.5m	OO: None FP: FC/PC FA: FC/APC SP: SC/PC SA: SC/APC LP: LC/PC LA: LC/APC