

1x16 Fiberoptic Switch

■ Product Description

1x16 fiberoptic 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 1x16 fiberoptic 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.

■ Applications

- Optical Signal Routing
- Network Protection
- Burst Switching
- Configurable Add/Drop
- Signal Monitoring
- Instrumentation

■ Features

- High Speed
- Non-Mechanical
- High Reliability
- Fail-Safe Latching
- Low Insertion Loss
- Rugged
- Compact
- Cost Effective
- Direct Low Voltage Drive



■ Performance Specifications

1x16 Switch	Unit	Min	Typical	Max
Operation Wavelength ^[1]	nm	1520	1550	1580
	nm	1295	1310	1325
Insertion Loss ^[2]	dB		1.5	2.5
Uniformity	dB		0.7	1.0
Cross Talk ^[2]	dB	40	50	
Return Loss ^[2]	dB	50		
Polarization Dependent Loss	dB		0.15	0.4
Polarization Mode Dispersion	ps			0.2
Switch Speed (Rise, Fall)	μs		50	200
Repetition Rate	Hz		2K	

■ Electrical Driving Information

Each switching point 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	Unit	Minimum	Typical	Maximum
Resistance (each Pin group)	Ω	15	18	22
Switch Voltage	V	2.5	2.5	2.75
Pulse Duration	ms	0.2	0.3	0.5

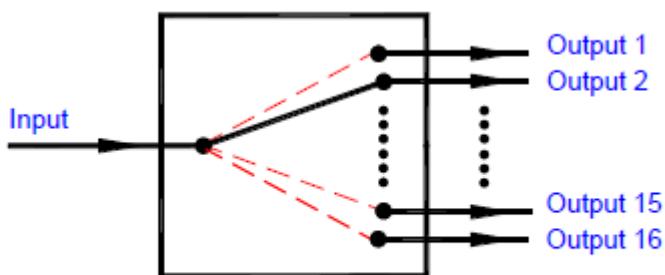
Driving kit with USB and TTL interfaces and Windows™ GUI is available. We also offer RS232 interface as an option – Please contact our sales team .

Electric Driving Table

Optical Path	PG1 *		PG2		PG3		PG4		PG5		PG6		PG7		PG8		PG9		PG10		PG11		PG12		PG13		PG14		PG15		PG16	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
IN→P1	+	-	+	-	+	-	+	-	+	-	+	-	-	+	-	+	-	+	NC	NC	NC	NC	NC	NC	-	+	-	+	-	+	-	+
IN→P2	-	+	-	+	+	-	+	-	+	-	+	-	-	+	-	+	-	+	NC	NC	NC	NC	NC	NC	-	+	-	+	-	+	-	+
IN→P3	+	-	+	-	-	+	+	-	+	-	-	+	+	-	-	+	-	+	NC	NC	NC	NC	NC	NC	-	+	-	+	-	+	-	+
IN→P4	-	+	-	+	-	+	+	-	+	-	-	+	+	-	-	+	-	+	NC	NC	NC	NC	NC	NC	-	+	-	+	-	+	-	+
IN→P5	+	-	+	-	-	+	-	+	+	-	-	+	-	+	+	-	-	+	NC	NC	NC	NC	NC	NC	-	+	-	+	-	+	-	+
IN→P6	-	+	-	+	-	+	-	+	+	-	-	+	-	+	+	-	-	+	NC	NC	NC	NC	NC	NC	-	+	-	+	-	+	-	+
IN→P7	+	-	+	-	-	+	-	+	-	+	-	+	-	+	-	+	+	-	NC	NC	NC	NC	NC	NC	-	+	-	+	-	+	-	+
IN→P8	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	+	-	NC	NC	NC	NC	NC	NC	-	+	-	+	-	+	-	+
IN→P9	+	-	-	+	NC	NC	NC	NC	NC	NC	-	+	-	+	-	+	-	+	-	+	-	+	-	+	+	-	-	+	-	+	-	+
IN→P10	-	+	+	-	NC	NC	NC	NC	NC	NC	-	+	-	+	-	+	-	+	-	+	-	+	-	+	+	-	-	+	-	+	-	+
IN→P11	+	-	-	+	NC	NC	NC	NC	NC	NC	-	+	-	+	-	+	-	+	+	-	-	+	-	+	-	+	+	-	-	+	-	+
IN→P12	-	+	+	-	NC	NC	NC	NC	NC	NC	-	+	-	+	-	+	-	+	+	-	-	+	-	+	-	+	+	-	-	+	-	+
IN→P13	+	-	-	+	NC	NC	NC	NC	NC	NC	-	+	-	+	-	+	-	+	+	-	+	-	-	+	-	+	-	+	+	-	-	+
IN→P14	-	+	+	-	NC	NC	NC	NC	NC	NC	-	+	-	+	-	+	-	+	+	-	+	-	-	+	-	+	-	+	+	-	-	+
IN→P15	+	-	-	+	NC	NC	NC	NC	NC	NC	-	+	-	+	-	+	-	+	+	-	+	-	+	-	-	+	-	+	-	+	+	-
IN→P16	-	+	+	-	NC	NC	NC	NC	NC	NC	-	+	-	+	-	+	-	+	+	-	+	-	+	-	-	+	-	+	-	+	+	-

* PG1: Pin Group 1. ** NC: No electronic connection,

Mechanical Dimensions (Unit: mm)



CL 1x16 Dual Stage Switch

■ Ordering Information: SW-A-B-C-D-E-F-G

A	B	C	D	E		F	G
Type	Wavelength	Switch	Package	Fiber Type		Fiber Length	Connector
116=1x16 000=Special	3=1310 5=1550 0=Special	2=Dual Stage 0=Special	1=Standard 0=Special	1=SMF-28 0=Special	1=Bare fiber 3=900μm loose tube 0=Special	1=0.25m 2=0.5m 3=1.0m 0=Special	1=None 2=FC/PC 3=FC/APC 4=SC/PC 5=SC/APC 6=ST/PC 7=LC 8=Duplex LC 9=MTP 0=Special

Example Model:SW-116-3-2-1-1-1-1-1

Description: Type: 1x16, Wavelength: 1310, Switch: Dual Stage, Package: Standard, Fiber Type: SMF-28 Bare fiber, Fiber Length: 0.25m, Connector: None .

For custom components, please provide detailed requirements.