

CrystaLatch™

1x1, 1x2, Solid-State Fiberoptic Switch

Product Description

The CL Series 1x1 and 1x2 solid-state fiber optic switch connects optical channels by redirecting an incoming optical signal into a selected output optical fiber. This is achieved using a patent pending 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 solid-state all-crystal design eliminates the need for mechanical movement and organic materials. The CL fiberoptic switch is designed to meet the most demanding switching requirement of ultra-high reliability, fast response time, and continuous switching operation.



Performance Specifications

CL Series 1x1,1x2 Switch	Min	Typical	Max	Unit
Operation Wavelength ¹	C-Band	1520 ~ 1570		nm
	1310	1295 ~ 1325		nm
Insertion Loss ²		0.7	1.0	dB
Cross Talk(Dual Stage) ³	40	50		dB
Switch Speed (rise, fall)	20	50	200	μs
Repetition Rate		5K		Hz
Polarization Dependent Loss		0.1	0.2	dB
Polarization Mode Dispersion		0.1	0.2	ps
Return Loss	50	55		dB
Drive Current (-5V)	± 120	± 140	± 250	mA
Operating Temperature	-5		70	°C
Optical Power Handling		300	500	mW
Storage Temperature	-40		85	°C
Fiber Type	Corning SMF-28			
Package Dimension	(L)58.2x(W)8.4x(H)8.4			mm

1. Agiltron can achieve same SPEC at L band
2. Measured without connectors
3. The typical crosstalk of single stage is 20dB

15 Cabot Road, Woburn, MA 01801 Tel: (781) 935-1200 Fax: (781) 935-2040

Features

- Solid-State high speed
- Ultra-high reliability
- Fail-safe latching
- Low insertion loss
- Direct low voltage drive
- Compact
- Low cost

Applications

- Optical channel blocking
- Configurable Add/Drop
- System monitoring
- Instrumentation

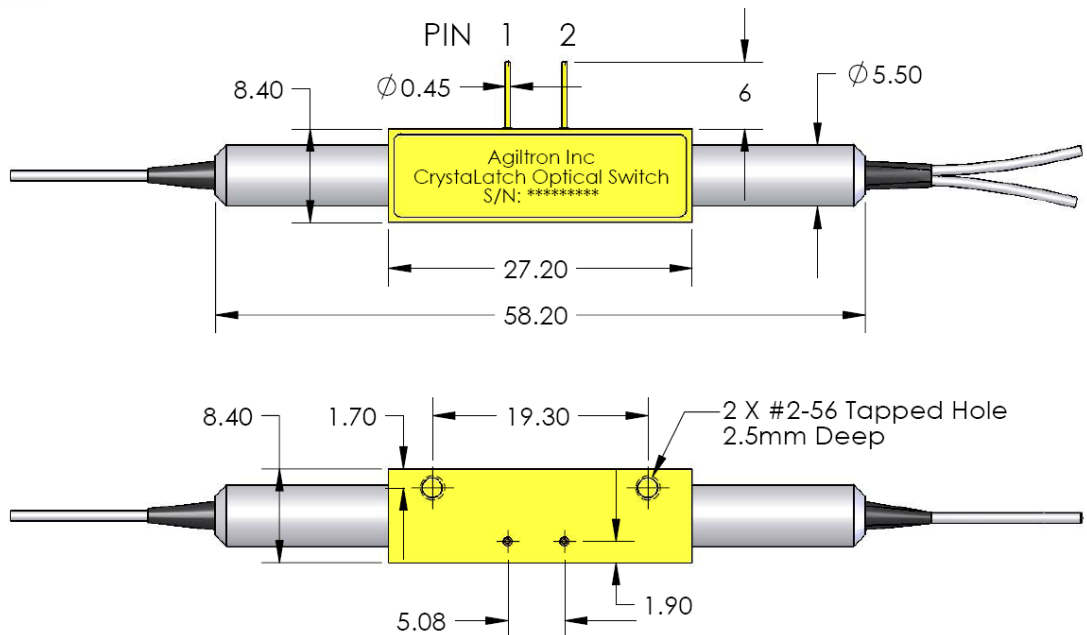
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Electrical Driving Requirements

Parameter	Typical	Minimum	Maximum	Unit
Switch Voltage	5	4	6	V
Switch Current	140	120	250	mA
Pulse Duration	1	0.1	100	ms

Evaluation kit with TTL and RS232 interface and Windows™ GUI also available

Mechanical Dimensions (mm)



Ordering Information

CLSW-	Type	Wavelength	Switch	Package	Fiber Type	Fiber Length	Connector
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	1x1=11 1x2=12 2x1=21	1310=3 1550=5 Special=0	Single stage=1 Dual Stage=2	Special = 0	SMF-28 =1 Special=0 Bare fiber=1 900um loose tube=3 Special = 0	0.25m=1 0.5m=2 1.0=3 Special=0	None = 1 FC/PC = 2 FC/APC = 3 SC/PC = 4 SC/APC = 5 ST/PC = 6 LC = 7 Special = 0

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