

CrystaLatch™ 1x4 Fiberoptic PM Switch

Product Description

The CL Series 1x4 PM fiber optical switch connects optical channels by redirecting an incoming optical signal into a selected output fiber. This is achieved using 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. CL 1x4 fiberoptic PM 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 requirement of ultra-high reliability and fast response time.



Features

- Solid-State High Speed
- Non-Mechanical
- Ultra-High Reliability
- Fail-Safe Latching
- Low Insertion Loss
- Direct Low Voltage Drive
- Compact
- Low Cost

Performance Specifications

CL Series 1x4 PM Switch	Min	Typical	Max	Unit
Operation Wavelength ¹	1520	1550	1580	nm
	1295	1310	1325	nm
Insertion Loss ²	0.8	1.2	1.5	dB
Extinction Ratio	18	25	30	dB
Cross Talk	40	50	55	dB
Return Loss ²	50			dB
Switch Time (Rise, Fall)	20	50	200	μs
Repetition Rate		5K		Hz
Operating Temperature	-5 ³		70	°C
Optical Power		300	500	mW
Storage Temperature	-40		85	°C
Switch type	Solid-Status Latching			
Fiber Type	Panda PM Fiber			
Package Dimension	53.5L x 38.3W x 8.5H			mm

1. Agiltron can achieve same SPEC at L band.

2. Exclude connectors.

3. -40°C version is also available.

Applications

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

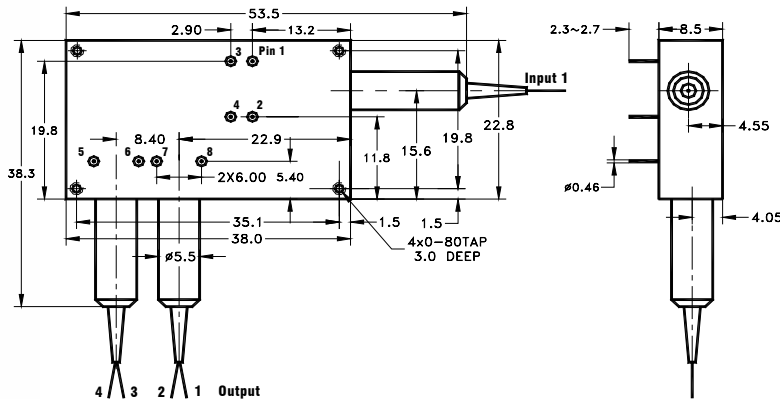
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Electrical Driving Requirements

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

Parameter	Typical	Minimum	Maximum	Unit
Switch Voltage	2.5	2	3	V
Switch Current	140	120	250	mA
Pulse Duration	1	0.1	100	ms

Mechanical Footprint Dimensions (mm)



Electrical Driving Table (DC2.5V)

CL 1x4 PM Switch

Optical Path	Pin Group 1		Pin Group 2		Pin Group 3		Pin Group 4	
	1	2	3	4	5	6	7	8
Input → Output 1	+	-	+	-	-	+	+	-
Input → Output 2	-	+	-	+	-	+	+	-
Input → Output 3	+	-	-	+	+	-	-	+
Input → Output 4	-	+	+	-	+	-	-	+

CL 4x1 PM Switch

Optical Path	Pin Group 1		Pin Group 2		Pin Group 3		Pin Group 4	
	1	2	3	4	5	6	7	8
Input → Output 1	-	+	-	+	+	-	-	+
Input → Output 2	+	-	+	-	+	-	-	+
Input → Output 3	-	+	+	-	-	+	+	-
Input → Output 4	+	-	-	+	-	+	+	-

Ordering Information

CLPM-	Type	Wavelength	Switch	Package	Fiber Type	Fiber Length	Connector	
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	1x4=14 4x1=41	1310=3 1550=5 Special=0	Dual Stage=2		PM1300=1 PM14xx=2 PM1550=3 Special=0	Bare fiber=1 900µm loose tube=3 Special=0	0.25m = 1 0.5m = 2 1.0m = 3 Special=0	None = 1 FC/PC = 2 FC/APC = 3 SC/PC = 4 SC/APC = 5 ST/PC = 6 LC = 7 Special = 0