

CrystaLatch™ 16x10 Fiberoptic Matrix Switch

(Protected by U.S. patents 7224860, 6757101, 6577430 and pending patents)

Product Description

The CL Series 16x10 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 CL16x10 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. Electronic driver is available for this series of switches.



Performance Specifications

CL Series Mini 16x10 Switch	Min	Typical	Max	Unit
Operation Wavelength	C Band or L Band			
Insertion Loss ¹		5	6	dB
Non Uniformity		0.7	1.6	dB
Cross Talk	-25	-30	-35	dB
Switch Speed (Rise, Fall)	5	100	200	µs
Repetition Rate		2K		Hz
Durability	10 ¹¹			cycle
Repeatability			±0.1	dB
Polarization Dependent Loss		0.2	0.5	dB
Polarization Mode Dispersion			0.2	ps
Return Loss	50			dB
Drive Voltage	2.5		3	V
Operating Temperature		25		°C
Optical Power Handling		500		mW
Storage Temperature	-40		85	°C
Switch type	Solid-State Latching			
Fiber Type	Corning SMF28			
Package Dimension	483L x 457W x 88H			mm

1. Excluding connectors

Features

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

Applications

- Optical Signal Routing
- Cross Connection
- Broadcasting
- Configurable Add/Drop
- Signal Monitoring
- Instrumentation

CrystaLatch™ 16X10 Fiberoptic Switch Module

Electrical Driving Information

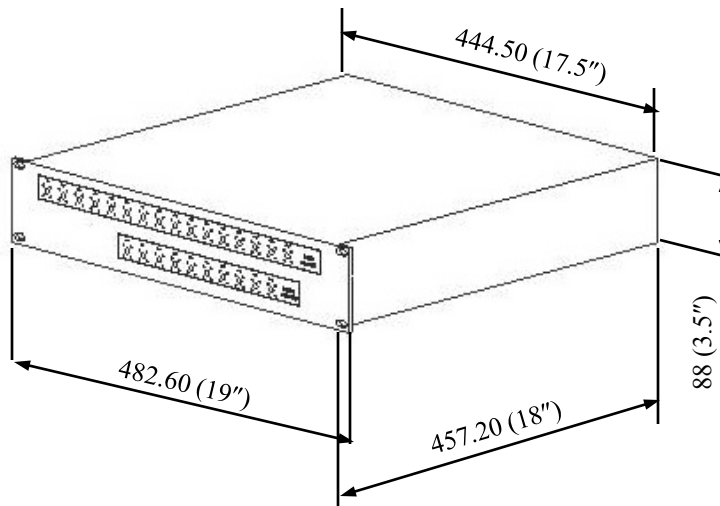
Each switching point is actuated by applying a voltage pulse. Applying one polarity pulse, one light path will be connected and latched to the position. Applying a reversed polarity pulse, another light path will be connected and latched to the position after pulse removed.

Parameter	Minimum	Typical	Maximum	Unit
Switch Voltage	2.25	2.5	2.75	V
Resistance	15	18	22	Ω
Pulse Duration	0.2	0.3	0.5	ms

Driving kit with RS232 and TTL interfaces and Windows™ GUI is available

Mechanical Footprint Dimensions (Unit:mm)

Standard version is a rack mount box with a dimension of 483x457mmx88mm.



Ordering Information

CLMS -	Type	Stage Type	Wavelength	Fiber Type	Connector	
<input type="checkbox"/> 1 <input type="checkbox"/> 6 <input type="checkbox"/> 1 <input type="checkbox"/> 0 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 1 <input type="checkbox"/>		Multicasting = M Unicasting = U	1310=3 1550=5 Special=0	SMF-28=1 Special=0	Bare fiber=1	FC/PC=2 FC/APC=3 SC/PC=4 SC/APC=5 ST/PC=6 LC=7 Duplex LC=8 Special=0