CrystaLatch™ 8x8 Non-Blocking Switch Module

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

Product Description

The CL Series 8x8 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. It is a truly non-blocking switching matrix. The all solid state 8x8 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.

Features

- Moderately Fast Speed
- Non-Mechanical
- High Reliability
- Fail-Safe Latching
- Low Insertion Loss
- Rugged
- Compact
- Cost Effective

Performance Specifications

CL Series 8x8 Switch	Min	Typical	Max	Unit
Operation Wavelength[1]	1520	1550	1580	nm
	1295	1310	1325	nm
Insertion Loss[2]		3.0	4.0	dB
Uniformity		0.7	1.5	dB
Cross Talk	35	50		dB
Switch Speed (rise, fall)	5	50	200	μs
Repetition Rate		2K		Hz
Durability	10^{11}			cycle
Polarization Dependent Loss		0.15	0.40	dB
Polarization Mode Dispersion			0.2	ps
Return Loss	50			dB
Operating Temperature [2]	-5		70	°C
Optical Power Handling		400		mW
Storage Temperature	-40		85	°C
Switch type	Solid-State Latching			

Notes:
[1]. Excluding connectors
[2]. -40°C version is also available.
[3]. Over this value will damage the device

Applications

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

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Control Interface Information

The standard control interface could be USB or RS232 or RJ45. AC source can be either 120V or 220V.

TTL control interface is available at D-shape PIN connector, and the driving table and electric driving information will be provided for the customer's own electronics design. Typically, each switching point is actuated by applying a voltage pulse with the parameters as following.

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

Mechanical Dimension

Standard version is 2RU 19" mount rack (dimension of 430mmx450mmx50mm)

Ordering Information

CLSW-	8 8		2	1		3	3	
	Type	Wavelength	Switch	Package	Fiber Type		Fiber Length	Connector
		1310=3 1550=5	Dual Stage=2		SMF-28=1 Special=0			FC/PC=2 FC/APC=3 SC/PC=4 SC/APC=5 ST/PC=6 LC=7 Duplex LC=8 MTP/MPO =9 Special=0

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