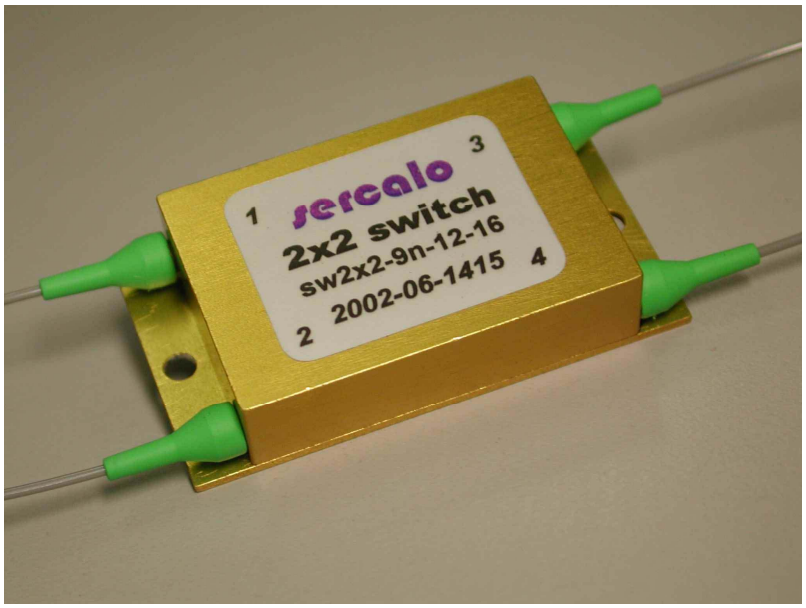


FAST FIBER OPTIC 2x2 SWITCH

OVERVIEW

The **sercalo** *sw* switches are very fast optomechanical switches based on the MEMS technology. The component is designed for optical cross connect switching in single mode fiber networks. The highly reliable switching mechanism uses an integrated micromirror and features 0.5 ms switching time and only 0.5 dB insertion loss.

The miniature package withstands rugged environments and is well suited for direct mounting on printed circuit boards. The switch is qualified according to Telcordia GR 1221.

FEATURES

- reliable
- 0.5 dB insertion loss
- 0.5 ms response time
- 60 dB crosstalk
- miniature size
- non-latching

APPLICATIONS

- Optical Reconfiguration
- Protection Switching
- Network Restoration

ORDERING INFORMATION
SW2x2-9N
SW2x1-9N (without port 2)

Ordering Information:
XSoptix
800 Village Walk #316
Guilford, CT 06437
Ph: 203-401-8093
Email orders to: sales@xsoptix.com
Fax orders to: 800-878-7282

Contact:
Sercalo microtechnology ltd
Landstrasse 151, 9494 Schaan
Principality of Liechtenstein
Tel. +423 237 57 97 Fax. +423 237 57 48
www.sercalo.com e-mail: info@sercalo.com

DESCRIPTION

The **sercalo** non-latching sw switch modules are fast and reliable switches designed for single mode fiber communication networks. The device is based on the latest silicon technology and uses a micro-mechanical mirror to switch light. Operated by an electrostatic actuator, the switch features fast switching below 1 ms and high crosstalk attenuation above 50 dB. The switch is powered by a 5 V supply voltage. A 5 V TTL or CMOS drive signal is used to control the switching state.

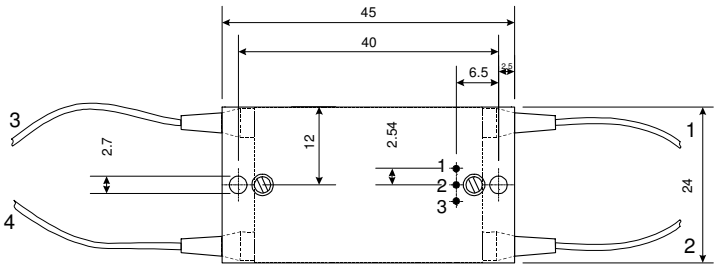
With 0 V on the drive pin (No 2) the switch is in its bar state. When 5 V are applied to the drive pin, the micromirror is moved out of the optical path, which puts the switch into its cross state. At power off, i.e. when either the supply voltage or the drive signal falls to 0 V, the switch returns into its bar state. The switching mechanism offers the reliability of a solid state device; it neither wears out nor degrades over time. Even after billions of cycles the switching quality stays constant.

TECHNICAL SPECIFICATIONS

	Unit	Min	Typ	Max
Switch				
Wavelength Range	nm	1240		1640
Insertion Loss	dB		0.5	0.9
Crosstalk	dB		75	50
Backreflection	dB		55	50
Polarisation Dependent Loss	dB		0.04	0.10
Switching Time	ms		0.4	1
Fiber Pigtail	µm		9/125/900	
Durability	cycles		no wear out	
Package				
Supply Voltage	V	4.0	5	5.25
Power Consumption	mW		5	25
Operation Temperature	°C	0		70
Storage Temperature	°C	-40		85
Size (L x W x H)	mm		45 x 24 x 9.5	

PIN CONNECTIONS

1 Supply 5 V
2 Drive Signal 5 V TTL
3 Ground 0 V



view from pin side

ORDERING INFORMATION

SW2x2-9N
SW2x1-9N (without port 2)

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