FAST
FIBER OPTIC
1x13 SWITCH

OVERVIEW

The *SW* fiber optic switch is a very fast opto-mechanical switch based on the MEMS technology. The component makes an optical connection between an optical port and either one of 13 input or output lines. A 1x12 variant is also available. The highly reliable switching mechanism uses integrated micromirrors and features below 1 ms switching time and below 1.5 dB insertion loss. 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.

The small package withstands rugged environments and is well suited for direct mounting on printed circuit boards. The switch is built by cascading 1x2 switches which are qualified according to Telcordia GR1221.

FEATURES

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

APPLICATIONS

- Optical Reconfiguration
- Instrumentation
- Provisioning

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TECHNICAL SPECIFICATIONS

	Unit	Min	Typ	Max
Switch				
Wavelength Range	nm	1240		1640
Insertion Loss	dB		1.0	1.5
Crosstalk	dB		75	60
Backreflection	dB		55	45
Polarisation Dependent Loss	dB			0.15
Repeatability[1]	dB			0.002
Switching Time	ms		0.5	1
Switching Voltage	V			5
Fiber Pigtail	μm		9/125/900	
Durability	cycles		no wear out	
Package				
Power Consumption	MW		150	
Operation Temperature	°C	0		70
Storage Temperature	°C	-40		85
Size (L x W x H)	Mm		144 x 105 x 10	

[1] *value for constant temperature and polarisation*

Optical Port Selection

S1	S2	S3	S4	S5	S6	Port
0	5	x	0	0	x	1
0	5	x	5	x	5	2
0	5	x	5	x	0	3
0	5	x	0	5	x	4
5	x	0	0	0	x	5
5	x	0	5	x	5	6
5	x	0	5	x	0	7
5	x	0	0	5	x	8
5	x	5	0	0	x	9
5	x	5	5	x	5	10
5	x	5	5	x	0	11
5	x	5	0	5	x	12
0	0	x	x	x	x	13

0 = 0 V (TTL or CMOS level)
5 = 5 V (TTL or CMOSlevel)
x = 0 V or 5 V
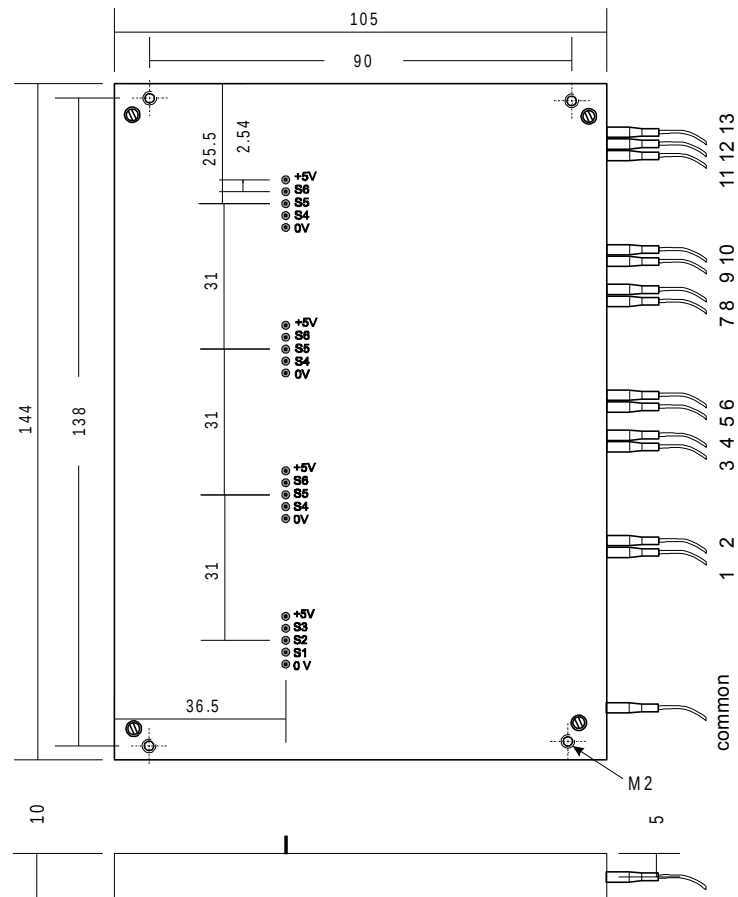
ORDERING INFORMATION

SW1x13-9N

SW1x12-9N (without port 13)

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

sercalo
MICROTECHNOLOGY LTD