



LATCHING FIBER OPTIC MEMS SWITCH

*driven by 5V
TTL/CMOS*

OVERVIEW

The *s/1x4* switch is an opto-mechanical latching switch. At power off it stays in the last selected state. The switch offers solid state reliability, accurate precision and fast response time. The switch mechanism is latching and has a very fast response time below 10 ms and below 1.2 dB insertion loss.

The miniature 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
- 1.2 dB insertion loss
- 10 ms response time
- low PDL
- 60 dB crosstalk
- miniature size
- latching

APPLICATIONS

- Source Selection
- Protection Switching
- Monitoring
- Wavelength provisioning

ORDERING INFORMATION

SLTS1x4-9N

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TECHNICAL SPECIFICATIONS

	Unit	Min	Typ	Max
Optical Switch				
Wavelength Range	nm	1240		1640
Insertion Loss	dB		0.7	1.2 ¹
Crosstalk	dB		75	60
Backreflection	dB		55	50
Polarisation Dependent Loss	dB		0.06	0.10
Repeatability ²	dB			0.002
Switching Time	ms		2	10
Fiber Pigtail	µm		9/125/900	
Durability	cycles		no wear out	
Integrated Driver				
Supply Voltage V_{cc}	V	4.75	5	5.25
Current Consumption I_{cc}	mA		2	10
Current sink Sensor I_{sensor}	mA			10
Logic Level Low (<i>BR and CR select</i>)	V			0.5
Logic Level High (<i>BR and CR select</i>)	V	3.0		
Selection Pulse Width	ms	20		
Response Time SENSOR OUTPUT			15	30
Package				
Operation Temperature	°C	0		70
Storage Temperature	°C	-40		85
Size (L x W x H)	mm		43 x 16.5 x 9.5	

¹ value excluding connectors. Add 0.25 dB to account for temperature and wavelength dependent loss.

² value for constant temperature and polarisation

MECHANICAL OUTLINE

Contact pins :

Length : 3.5 ±0.5mm

Diameter: 0.59mm

Pitch: 2.54 mm

Centering: 0.2mm

Optical Port Selection Table:

1 : 20 ms pulse, high CMOS / TTL

0: low CMOS / TTL

x: either 0 or 5 V

	B	A	D	C
S1	1	0	0	1
S2	X	0	1	X
S3	1	X	X	0
S4	0	X	X	1
S5	X	1	0	X
S6	0	1	1	0
M1	0	1	1	0
M2	x	1	0	x
M3	0	x	x	1

VIEW FROM PIN SIDE

