

1xN (N=4, 8, 12, ... , 32) MEMS Optical Switch, Coaxial Design

Features

Compact Size
Fast Response Time
TTL or CMOS Logic

Applications

Protection Switching
Reconfiguration
Optical Subsystems
Array Integration

Specifications

Parameters	Unit	Single Mode
Operation Wavelength	nm	1260~1600
Insertion Loss	1x4 ¹	≤1.1 (Typ. 0.5)
	1x8 ²	≤1.2 (Typ. 0.7)
	1x12 ²	≤1.4 (Typ. 0.8)
	1x16 ²	≤1.4 (Typ. 0.8)
	1x32 ²	≤1.7 (Typ. 0.8)
Polarization Dependent Loss	dB	≤0.15
Return Loss	dB	≥50
Cross Talk	dB	≥50 (Typ. 75)
Switch Time	ms	10 (Typ. 5)
Repeatability ³	dB	±0.01
Durability	cycles	No Wear Out
Fiber Type		SMF-28e
Operating Relative Humidity	%	5~90
Operating Temperature	°C	0 ~ +70
Storage Temperature	°C	-40 ~ +70
Dimensions (LxWxH)	mm	25x40x9
Supply Voltage	V	4.75~5.25
Power Consumption, Normal Mode	mW	≤75
Power Consumption, Standby	mW	20 (Typ.)
UART Speed	baud	9600~115200
SMBus/I ² C Bus Speed	kbps	≤400
Logic Level Low	V	≤0.6 (Typ. 0)
Logic Level High	V	≥2.4 (Typ. 5)
Reset Inactive Voltage ⁴	V	≥2.4 (Typ. 5)
Reset Active Voltage	V	≤0.9 (Typ. 0)
Reset Pulse Duration	µs	≥15
Weight	g	75

1 Range for gold mirror; for aluminum 400-2000 nm.

2 Value @ 25 °C, without connectors.

3 For constant temperature and polarization.

4 Through onboard pull-up resistor.

Functional Bloc Diagram

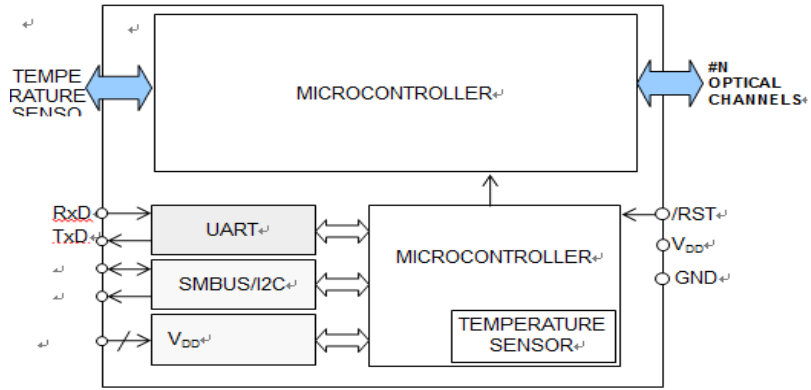
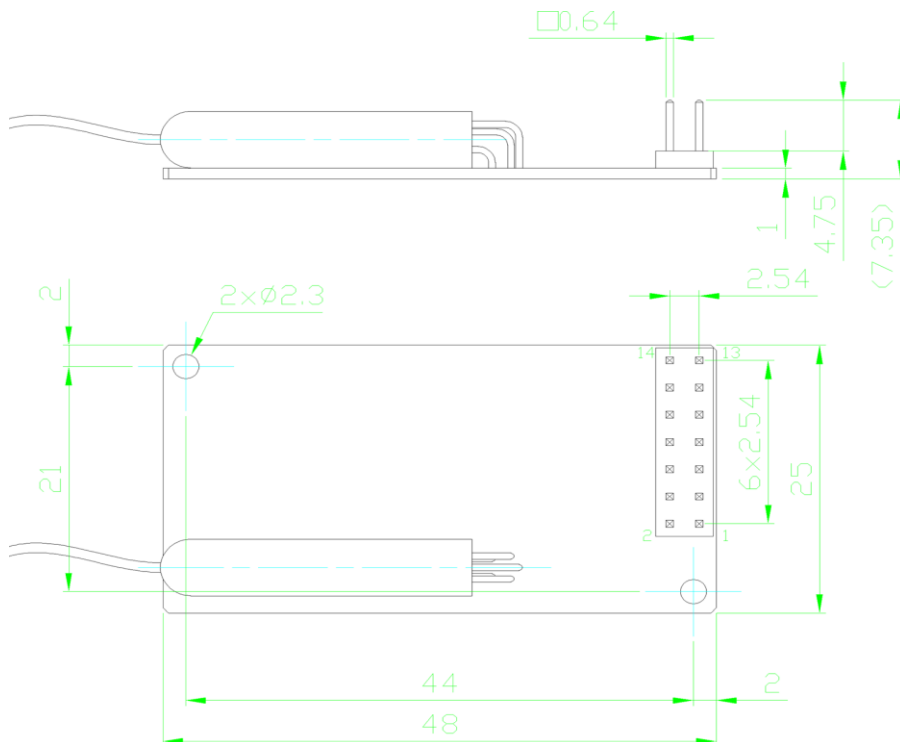
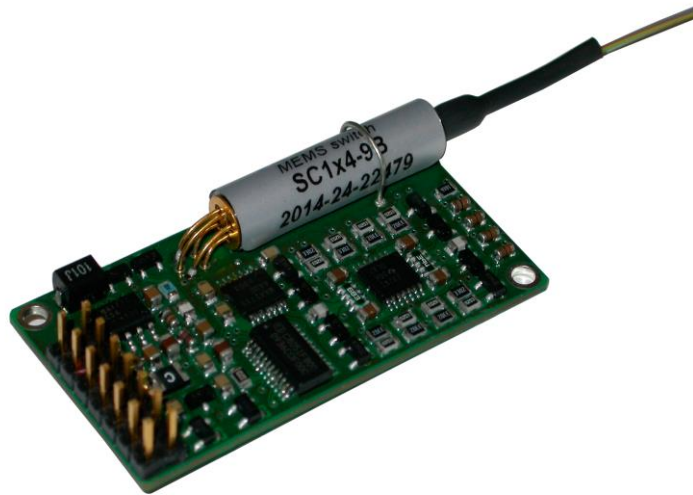


Photo and Dimensions (mm)



CONNECTOR PINOUT

Pin Number	Description
1	TTL2
2	TTL3
3	TTL0
4	TTL1
5	Ground (GND)
6	Supply voltage (V _{DD})
7	Reserved ⁴
8	UART TX data
9	Reserved ⁴
10	UART RX data
11	System reset (/RST)
12	SMBus/I ² C SDA
13	SMBus/I ² C SCL
14	Ground (GND)

⁴Let reserved pins unconnected.

Ordering Information

LMSW- ①①①-②②②②②②②②②-③-④④④-⑤-⑥-⑦⑦-⑧⑧⑧⑧⑧⑧⑧

①	Port Type	1x4; 1x8; ...; 1x32;
②	Wavelength	1260~1600;
③	Mode	N=Non-Latching;
④	Pigtail Type	250=250um Fiber(8 Core Ribbon Fiber)
⑤	Fiber Type	1=SMF-28;
⑥	Fiber Length	1= 1m;
⑦	Connector	NE=None; FA=FC/APC; FC=FC/UPC; SA=SC/APC; SC=SC/UPC; LC=LC/UPC; XX=Others;
⑧	Package	25x40x9;