

# VOA-Integrated Optical Switch Array

Optical materials, Devices & Technical services



## Description

ChemOptics SV1210 is a fully integrated 10ch array device of 1x2 DOS switches connected with VOAs. The outstanding polymer DOS and VOA technologies are incorporated to provide fast switching and controllable attenuation. With low insertion loss, compact size and low power consumption, it can provide the best solution for channel switching and power control in ROADM switching system.

## Model Number

- 10ch switch array with VOA: SV1210

## Features

- 10ch array of 1x2 optical switch with VOA
- High reliability (no moving part)
- Compact size
- Low insertion loss
- Low PDL
- Low power consumption

## Applications

- Protection switching
- Channel ON/OFF switching
- Optical Add-Drop switches for ROADM

## Optical Specifications

Parameter	Specifications
Number of Channels	8/10
Operation Wavelength [nm]	1528 ~ 1610 [C & L band]
Insertion Loss [dB]	< 1.7
VOA Dynamic Range [dB]	> 25
PDL [dB] (@0~10dB)	< 1.0
Extinction Ratio [dB]	> 35
Optical Return Loss [dB]	>45
Thermal Crosstalk [dB]	< 0.3
Chromatic Dispersion [ps/nm]	< 1.0
PMD [ps]	< 0.1
Response Time [ms]	< 10
Maximum Optical Power [mW]	200

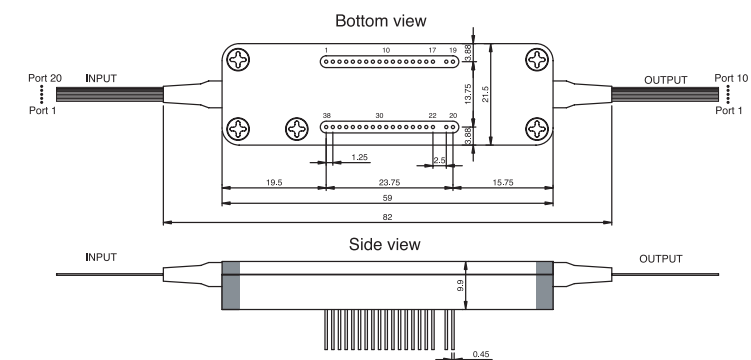
- With no connectors
- Specifications are subject to change at any time at the sole discretion of the company

## Electrical & Mechanical Specifications

Parameter	Specifications	
Driving Voltage [V]	< 5	
Power Consumption [mW/ch] (@20dB)	< 80	
Power Consumption [W] (with TEC)	< 2	
TEC	Q max [W]	3.4
	I max [A]	2
	V max [V]	3.2
	$\Delta T$ [°C]	> 70
Thermistor Resistance [ $k\Omega$ ] (@25°C)	10	
Operating Temperature [°C]	0 ~ 70	
Storage Temperature [°C]	-40 ~ 85	
Fiber Type	SMF-28, 900 $\mu$ m or Pure Access	
Dimensions [L x W x H, mm]	82 x 21.5 x 9.9	

## Outline Dimensions and Pin Configurations

Unit : mm



### Pin configuration

1 : 06A	14 : 09V	27 : VCOM
2 : 06T	15 : 08V	28 : SW COM
3 : 07A	16 : 07V	29 : 01A
4 : 07T	17 : 06V	30 : 01T
5 : 08A	18 : TEC (+)	31 : 02A
6 : 08T	19 : TEC (+)	32 : 02T
7 : 09A	20 : Thermistor	33 : 03A
8 : 09T	21 : Thermistor	34 : 03T
9 : 10A	22 : 05V	35 : 04A
10 : 10T	23 : 04V	36 : 04T
11 : SW COM	24 : 03V	37 : 05A
12 : VCOM	25 : 02V	38 : 05T
13 : 10V	26 : 01V	

### Schematic Diagram

