

1×4、1×8、1×16 Optical Switch



Features:

- Wide Wavelength Range
- Low Back Reflection
- High Reliability、High dependability
- Simple control
- Unique Patented Technology
- No glue in the route

Applications:

- Switching in Optical
- System Monitoring
- R&D in Laboratory

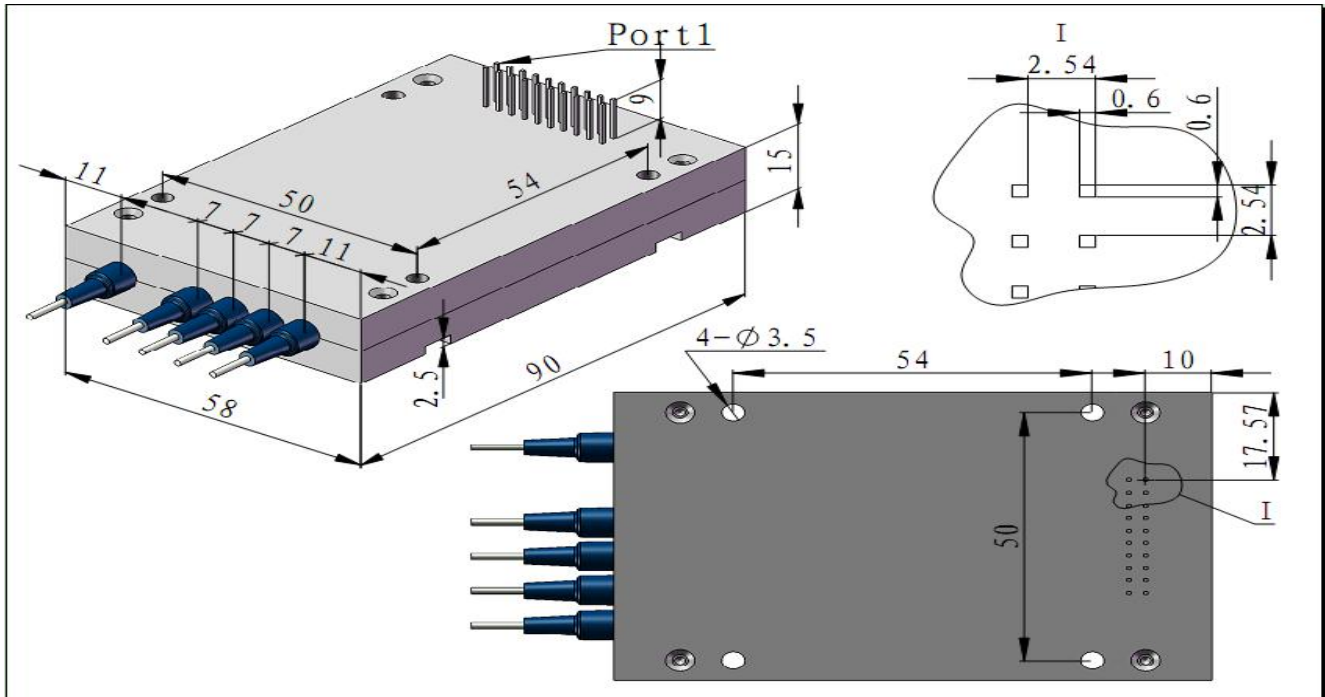
SW-1×4P、1×8P、1×16P Optical Switch, which is famous for its high performance, has a small dimension .It is an ideal Component for OADM, OXC, system monitoring and error protection. It could be easy to integrate into a high density optical communication system.

Specifications

Parameters	SW-1×4P、1×8P、1×16P						
		(1260~1620nm)		850, 1310 & 1490 & 1550		535~980(MM)	
Wavelength Range	nm						
Insertion Loss (1x4)	dB	Typ:1.0	Max:1.2	Typ:1.2	Max:1.5	Typ:1.2	Max:1.5
Insertion Loss (1x8)	dB	Typ:1.5	Max:1.8	Typ:1.8	Max:2.0	Typ:1.8	Max:2.0
Insertion Loss (1x16)	dB	Typ:2.0	Max:2.4	Typ:2.4	Max:2.6	Typ:2.4	Max:2.6
PDL	dB	≤0.05					
Return Loss	dB	SM≥50、MM≥30					
WDL	dB	≤0.25					
Cross-Talk	dB	SM≥55、MM≥35					
Repeatability	dB	≤±0.02					
Operating Voltage	v	5.0					
Durability(Life)	times	≥10 ⁷					
Switching Time	ms	≤8					
Transmission Power	mW	≤500					
Operating Temperature	°C	-20~+70					
Storage Temperature	°C	-40~+85					
Dimension mm		1×4(90×58×15)		1×4(90×58×15)		1×4(90×58×15)	

Dimension (mm)

1×4 Optical Switch Module size (mm)



1×4 Optical Switch Pins Defining:

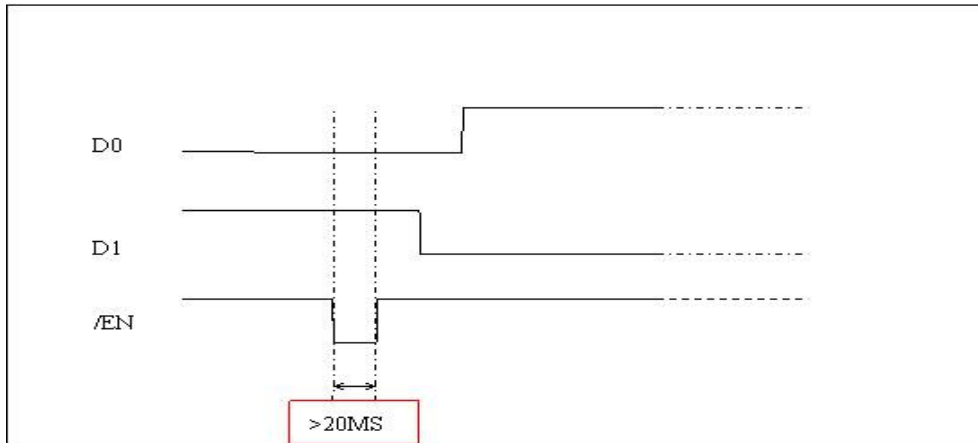
Pin Number	Name	Input or Output	Function
1	D0	Input	Port Selection Pin 1 (TTL signals)
2	D1	Input	Port Selection Pin 2 (TTL signals)
3	NC		No Connect
4	NC		No Connect
5	/EN		Enable (Input)
6	NC		No Connect
7	VCC	Input	+5.0V Power Supply (TTL Power)
8	GND	Input	Power Ground
9	NC		No Connect
10	NC		No Connect
11	NC		No Connect
12	NC		No Connect
13	S0		Inquiring status values 0 (TTL signals)
14	S1		Inquiring status values 1(TTL signals)
15	NC		No Connect
16	NC		No Connect
17	NC		No Connect
18	NC		No Connect
19	NC		No Connect
20	NC		No Connect

1×4 Optical Switch Control

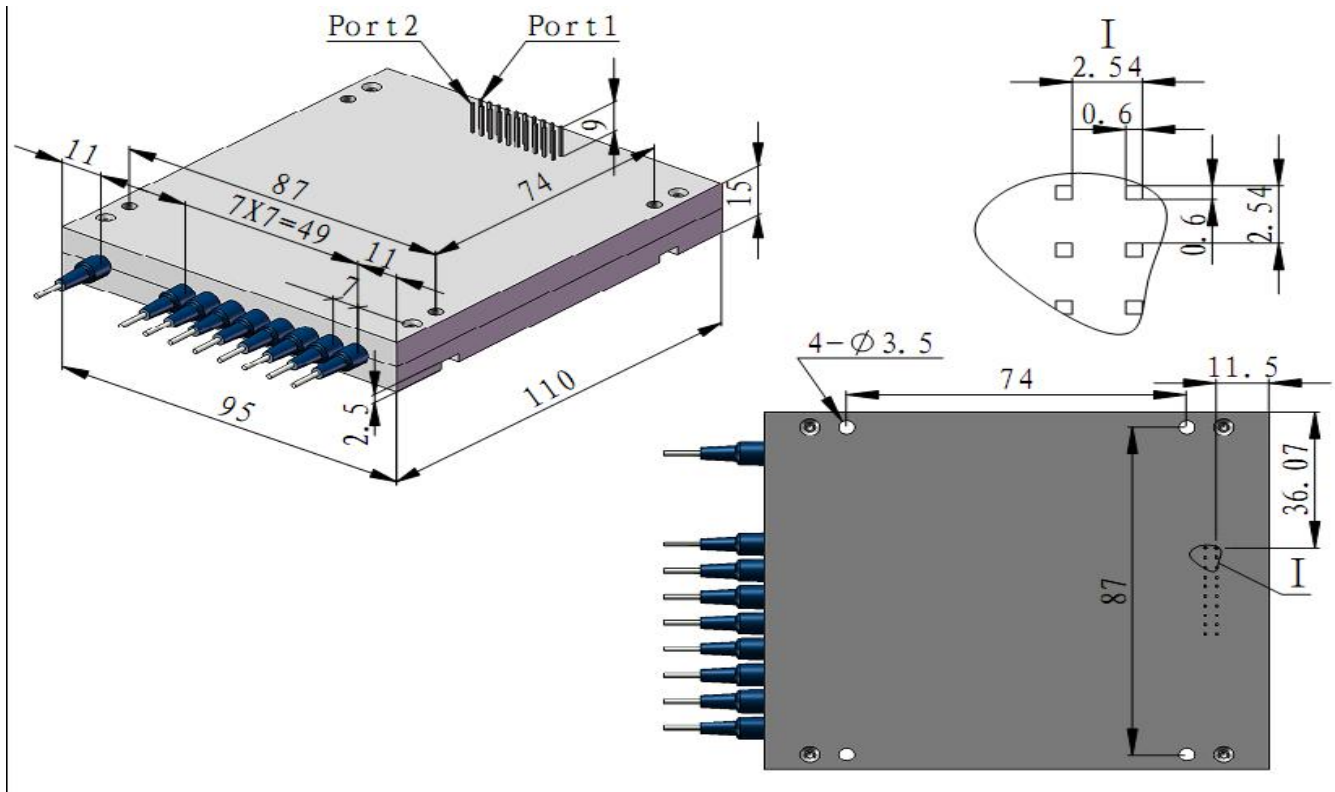
Input Signals		The Selected Path	Output Signals	
D1	D0		S1	S0
0	0	Input→Output 1	0	0
0	1	Input→Output 2	0	1
1	0	Input→Output 3	1	0
1	1	Input→Output 4	1	1

Default : Input→Output 4

1×4 Optical Switch switching sequence chart



1×8 Optical Switch Module Size (mm)



1×8 Optical Switch Pins Defining:

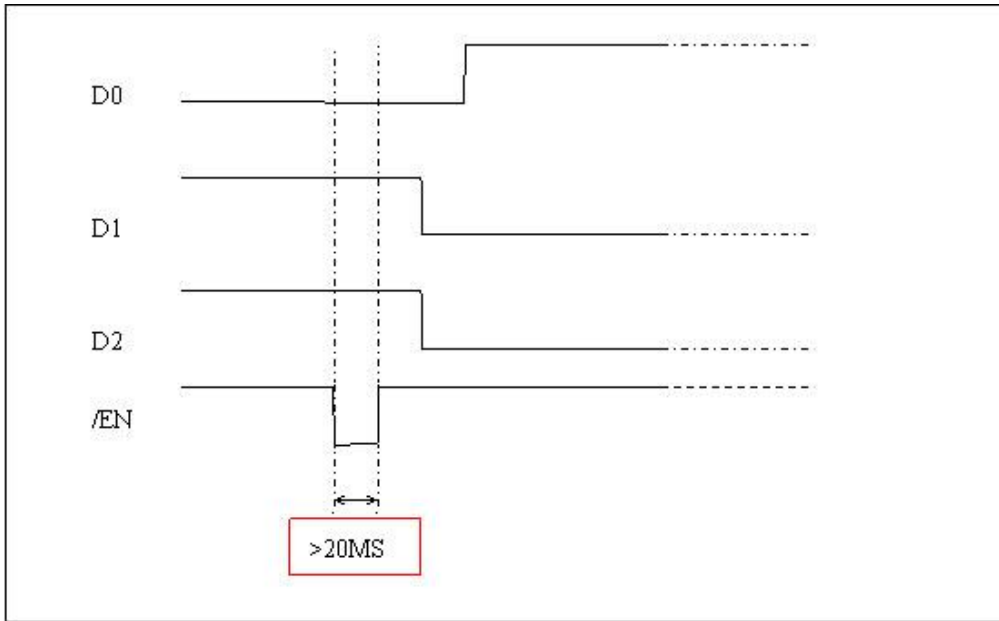
Pin Number	Name	Input or Output	Function
1	D0	Input	Port Selection Pin 1 (TTL signals)
2	D1	Input	Port Selection Pin 2 (TTL signals)
3	D2	Input	Port Selection Pin 3 (TTL signals)
4	NC		No Connect
5	/EN		Enable (Input)
6	NC		No Connect
7	VCC	Input	+5.0V Power Supply (TTL Power)
8	GND	Input	Power Ground
9	NC		No Connect
10	NC		No Connect
11	NC		No Connect
12	NC		No Connect
13	S0		Inquiring status values 0 (TTL signals)
14	S1		Inquiring status values 1 (TTL signals)
15	S2		Inquiring status values 2 (TTL signals)
16	NC		No Connect
17	NC		No Connect
18	NC		No Connect
19	NC		No Connect
20	NC		No Connect

1×8 Optical Switch Control

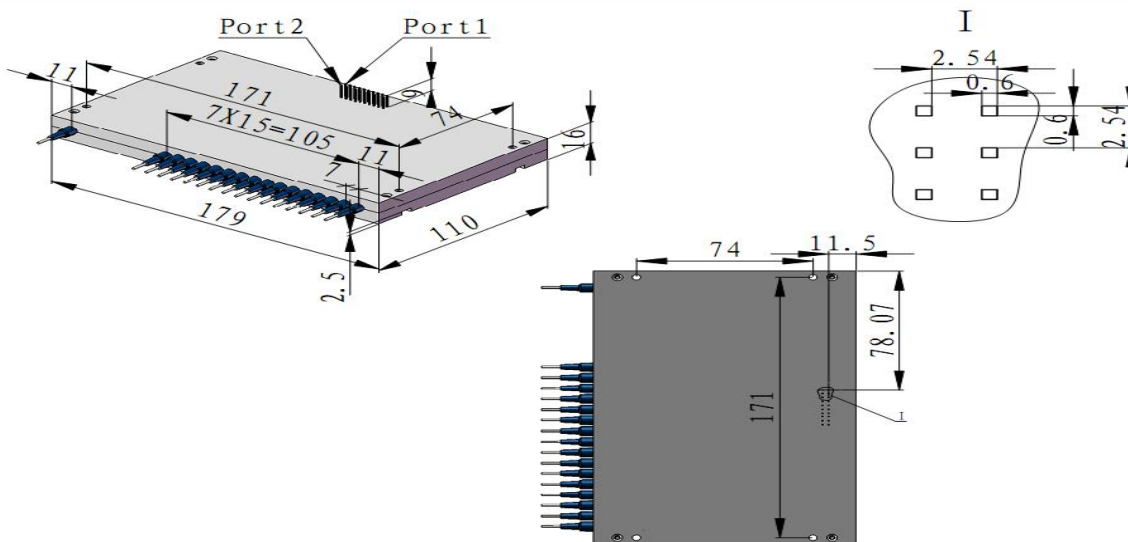
Input Signals			The Selected Path	Output Signals		
D2	D1	D0		S2	S1	S0
0	0	0	Input→Output 1	0	0	0
0	0	1	Input→Output 2	0	0	1
0	1	0	Input→Output 3	0	1	0
0	1	1	Input→Output 4	0	1	1
1	0	0	Input→Output 5	1	0	0
1	0	1	Input→Output 6	1	0	1
1	1	0	Input→Output 7	1	1	0
1	1	1	Input→Output 8	1	1	1

Default : Input→Output 8

1×8 Optical Switch switching sequence chart



1X16 Optical Switch Module Size (mm)



1X16 Optical Switch Pins Defining:

Pin Number	Name	Input or Output	Function
1	D0	Input	Port Selection Pin 1 (TTL signals)
2	D1	Input	Port Selection Pin 2 (TTL signals)
3	D2	Input	Port Selection Pin 3 (TTL signals)
4	D3	Input	Port Selection Pin 4 (TTL signals)
5	/EN	Input	Enable (Input)
6	NC		No Connect
7	VCC	Input	+5.0V Power Supply (TTL Power)
8	GND	Input	Power Ground
9	NC		No Connect
10	NC		No Connect

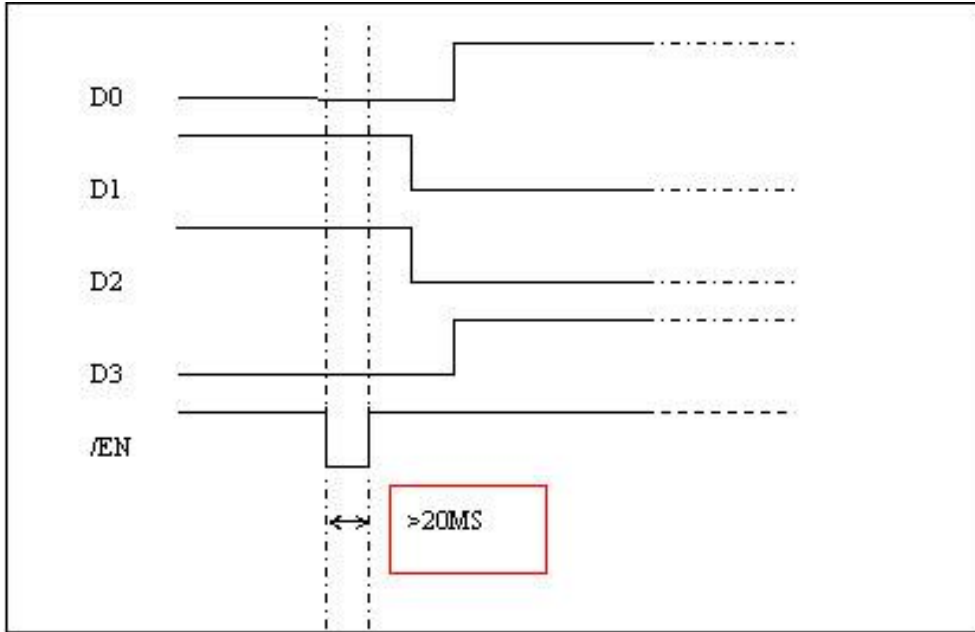
11	NC		No Connect
12	NC		No Connect
13	S0		Inquiring status values 0 (TTL signals)
14	S1		Inquiring status values 1 (TTL signals)
15	S2		Inquiring status values 2 (TTL signals)
16	S3		Inquiring status values 3 (TTL signals)
17	NC		No Connect
18	NC		No Connect
19	NC		No Connect
20	NC		No Connect

1 × 16 Optical Switch Control

Input Signals				The Selected Path	Output Signals			
D3	D2	D1	D0		S3	S2	S1	S0
0	0	0	0	Input→Output 1	0	0	0	0
0	0	0	1	Input→Output 2	0	0	0	1
0	0	1	0	Input→Output 3	0	0	1	0
0	0	1	1	Input→Output 4	0	0	1	1
0	1	0	0	Input→Output 5	0	1	0	0
0	1	0	1	Input→Output 6	0	1	0	1
0	1	1	0	Input→Output 7	0	1	1	0
0	1	1	1	Input→Output 8	0	1	1	1
Default :				Input→Output 16				

Input Signals				The Selected Path	Output Signals			
D3	D2	D1	D0		S3	S2	S1	S0
1	0	0	0	Input→Output 9	1	0	0	0
1	0	0	1	Input→Output 10	1	0	0	1
1	0	1	0	Input→Output 11	1	0	1	0
1	0	1	1	Input→Output 12	1	0	1	1
1	1	0	0	Input→Output 13	1	1	0	0
1	1	0	1	Input→Output 14	1	1	0	1
1	1	1	0	Input→Output 15	1	1	1	0
1	1	1	1	Input→Output 16	1	1	1	1
Default :				Input→Output 16				

1 × 16 Optical Switch switching sequence chart



Ordering Information

FSW-1×n-a-b-c-d-e-f-g-h

n	a	b	c	e	f	g	h
channel	mode	wavelength	voltage type	fiber type	fiber diameter	fiber length	connector
1~16	s:sm m:mm	85: 850nm 13: 1310nm 14: 1490nm 15: 1550nm 162: 1625nm 165: 1650nm 13/15:1310/1550nm x: others	3: 3v 5: 5v	5:50/125、 6:62.5/125 9: 9/125 x: other	25:250um 90:900um; 20:2.0mm 30: 3.0mm x: other	05:0.5m 10:1.0m 15:1.5m x: others	oo: none fp: fc/pc fa: fc/apc sp: sc/pc sa: sc/apc sp: st/pc sa: st/apc lp: lc/pc la: lc/apc x: other