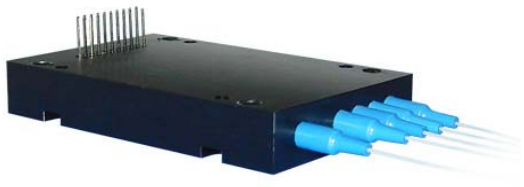
1×4, 1×8, 1×16 Micro Mechanical Optical Switch

MMOSW-1×4P、1×8P、1×16P Optical Switch, which is famous for its high performance, compact dimension and simple control type. It is an ideal Component for OADM, OXC, system monitor and protection. With compact dimension, it could be easy to integrate into a high density optical communication system.

Features

- Wide Wavelength Range
- Low Crosstalk
- High Stability, High Reliability
- Epoxy-free on optical path
- Latching and Non-latching



Applications

- Switching in Optical
- System Monitor
- R&D in Laboratory
- Configurable OADM

Specifications

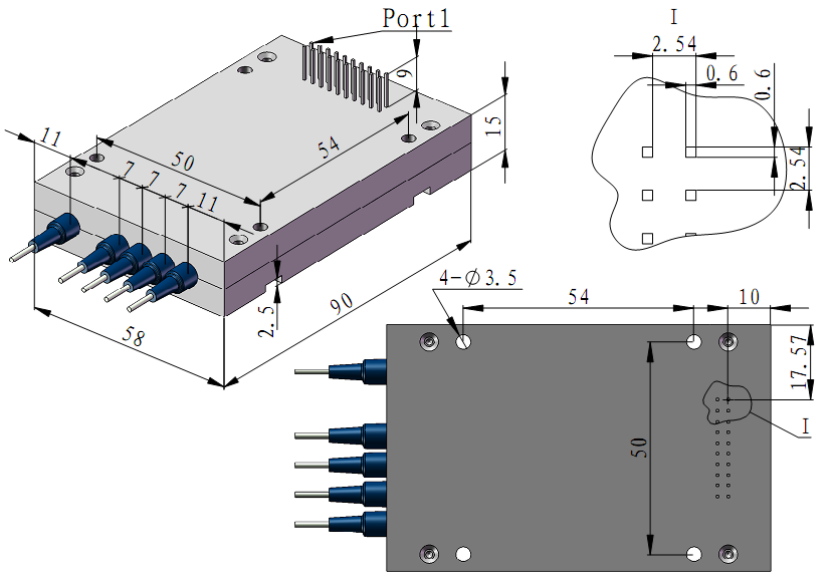
Parameters		MMOSW-1×4P, 1×8P, 1×16P					
Wavelength Range	nm	1310 or 1490 or 1550 (SM)		1310 & 1490 & 1550 (SM)		850 or 1310(MM)	
Insertion Loss(1×4)	dB	Typ:1.2	Max:1.3	Typ:1.2	Max:1.5	Typ:1.2	Max:1.5
Insertion Loss(1×8)	dB	Typ:1.5	Max:1.8	Typ:1.8	Max:2.0	Typ:1.8	Max:2.0
Insertion Loss(1×16)	dB	Typ:2.4	Max:2.6	Typ:2.6	Max:2.8	Typ:2.4	Max:2.6
PDL	dB	≤0.05					
Return Loss	dB	SM≥50, MM≥30					
WDL	dB	≤0.25					
Crosstalk	dB	SM≥55, MM≥35					
Repeatability	dB	≤±0.02					
Power Supply	v	5.0					
Lifetime	times	≥107					
Switch Time	ms	≤8					
Transmission Power	mW	≤500					
Operating Temperature	℃	-20~+70					
Storage Temperature	℃	-40~+85					
Dimension	mm	90×58×14.5 (for 1×4)		110×95×14.5 (for 1×8)		110×179×14.5 (for 1×16)	

Ordering Information

MMOSW-1×①-②②-③-④-⑤-⑥-⑦-⑧

①: Channel	②②: Wavelength	③: Mode	④: Connector Type	⑤: Fiber Jacket	⑥: Fiber Length
1, 4, 16	65 - 1650nm	S: SM	1 - FC/PC	B - 250 μm Panda fiber	0 - 0.5 m
	62 - 1625nm	M: MM	2 - FC/APC	L - 900 μm loose tube	1 - 0.75 m
	55 - 1550nm		3 - SC/PC	D - 2mm cable	2 - 1 m
	49 - 1490nm		4 - SC/APC	C - 3 mm cable	3 - 1.5 m
	31 - 1310nm		5 - ST/PC	S - Specify	S - Specify
	85 - 850nm		6 - ST/APC		
			7 - LC/PC	⑦: Fiber Type	⑧: Voltage Type
			8 - LC/APC	1 - 50/125	3 - 3V
			N - None	2 - 62.5/125	5 - 5V
			S - Specify	3 - 9/125	
				S - Specify	

1×4 Dimension：90×58×14.5mm



1×4 Pins

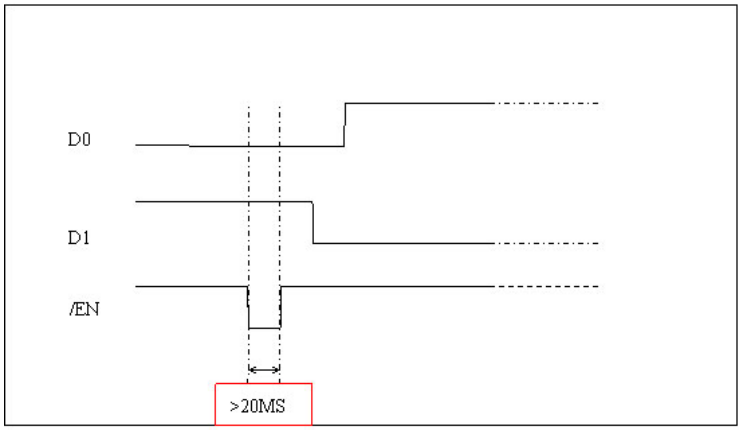
Pin Number	Name	Input or Output	Function
1	D0	Input	Port Selection Pin 1 (TTL signals)
2	D1	Input	Port Selection Pin 2 (TTL signals)
3	NC		No Connect
4	NC		No Connect
5	/EN		Enable (Input)
6	NC		No Connect
7	VCC	Input	+5.0V Power Supply (TTL Power)
8	GND	Input	Power Ground
9	NC		No Connect

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

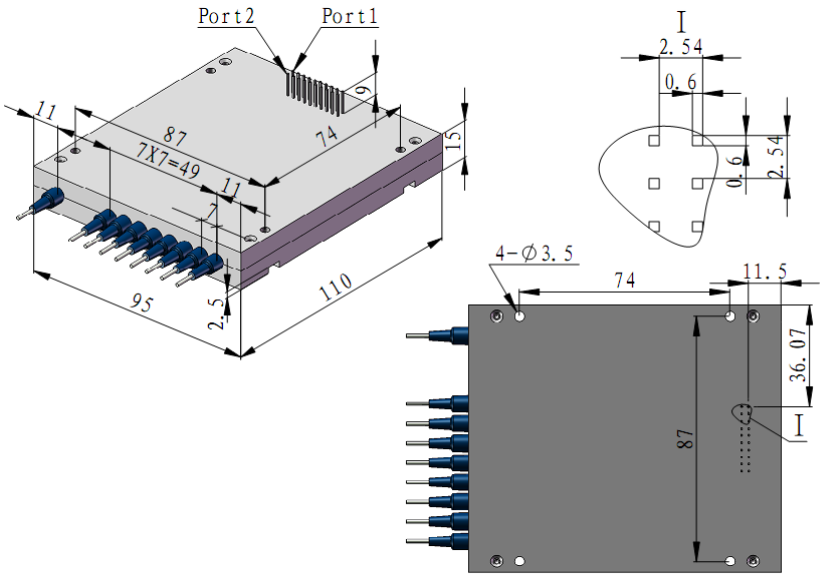
1×4 Switching Control --True Value Sheet

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 Switching Diagram



1×8 Dimension : 110x95x15 mm



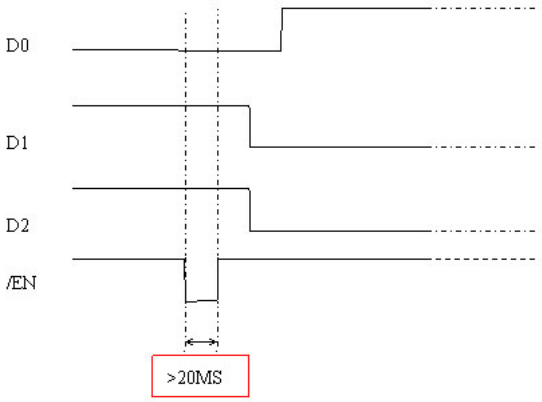
1×8 Pins

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

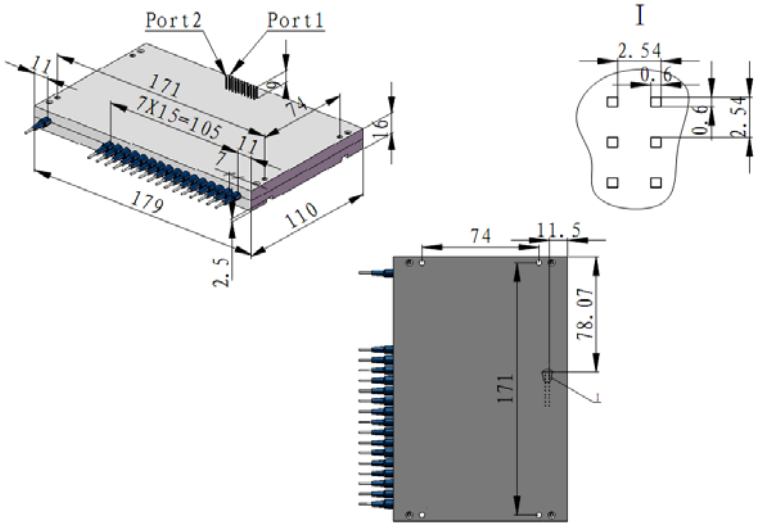
1×8 Switching Control -- True Value Sheet

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 Switching Diagram



1×16 Dimension: 110x179x15mm



1×16 Pins

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		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 Switching Control -- True Value Sheet

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
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 Switching Diagram