

1xN (4~128) Opto-Mechanical Multimode Switch

FEATURES

- Unmatched Low Cost
- Low Insertion Loss
- Epoxy-Free Optical Path
- High Reliability and Stability
- High Stability

APPLICATIONS

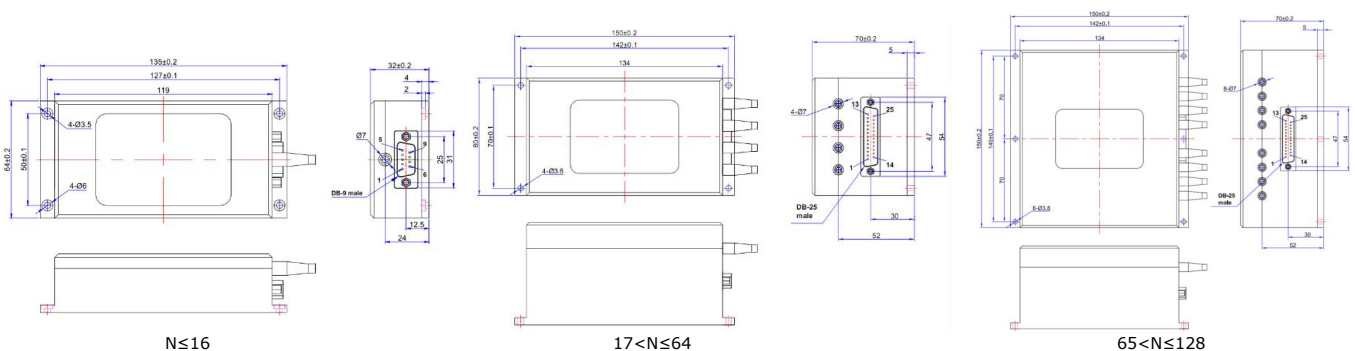
- Configurable Optical Networks
- Fiber Optic Instruments
- Optical Signal Routing
- Testing Instruments
- System Monitoring

SPECIFICATIONS

Parameters	Unit	Single Window		Dual Window	
Center Wavelength	nm	850, 1310, 1480 1550, 1590, 1625		850&1310, 1310&1550 C+L(1520~1610)	
Bandwidth	nm	+/-30			
Configuration	-	1xN (N≤16)	1xN (17<N≤64)	1xN (65<N≤128)	
Insertion Loss	dB	≤1.2	≤1.4	≤1.8	
Wavelength Dependent Loss	dB	≤0.40			
Return Loss	dB	≥30			
Cross Talk	dB	≥35			
Switching Speed	ms	≤10 (Sequence switch time of adjacent channel)			
Durability	cycle	≥10,000,000			
Repeatability	dB	≤+/-0.05			
Fiber Type	-	50/125um MM or 62.5/125 MM Fiber 50/125um OM3 MM Fiber			
Fiber Tensile Load	N	5			
Maximum Optical Power (CW)	mW	300			
Operating Temperature	°C	0~50			
Storage Temperature	°C	-40~85			

- Note:**
- Specifications are for device without connectors; Specifications may change without notice.
 - To add connectors, IL is 0.3dB higher, RL is 5dB lower.
 - Devices for higher optical power or with other type fiber or consigned fiber are also available.

PACKAGE DIMENSION



ORDERING INFORMATION (PN)

FMMS-	NNNN	- M	NNN	- C	C	NN	- CC/CCC
	<i>Center Wavelength</i>		<i>Configuration</i>	<i>Fiber Type</i>	<i>Fiber Sleeve</i>	<i>Fiber Length</i>	<i>Connector Type</i>
	1310-1310nm		004-1x4 Type	5-50/125um MM Fiber	B- Bare Fiber	05-0.5m	N-Without Connector
	1550-1550nm		032-1x32 Type	6-62.5/125um MM Fiber	L- Loose Tube	10-1.0m	FC/APC-FC/APC Connector
	850-850nm		088-1x88 Type	3-OM3 MM Fiber	2- 2mm Cable	15-1.5m	LC/PC-LC/PC Connector
	8513-850nm&1300nm		128-1x128 Type		3- 3mm Cable	20-2.0m	SC/UPC-SC/UPC Connector



PIN CONFIGURATION

DB9 Male Connector (Max. 1x16):

Pin#	Signal	I/O	Description
1	D0	Input	TTL, Channel Selection Bit
2	D1	Input	TTL, Channel Selection Bit
3	D2	Input	TTL, Channel Selection Bit
4	D3	Input	TTL, Channel Selection Bit
5	/RESET	Input	TTL, L: reset to channel 0, H: Channel selection bit are effective
6	/READY	Output	TTL, L=Ready, H=Not Ready
7	ERROR	Output	TTL, H=Error, L=No Error
8	GND	Input	Ground
9	+5VDC	Input	5.0±5%VDC Power Supply (max550mA)

DB15 Male Connector (Max. 1x32):

Pin#	Signal	I/O	Description
2	D0	Input	TTL, Channel Selection Bit
3	D1	Input	TTL, Channel Selection Bit
4	D2	Input	TTL, Channel Selection Bit
5	D3	Input	TTL, Channel Selection Bit
6	D4	Input	TTL, Channel Selection Bit
11	/RESET	Input	TTL, L: reset to channel 0, H: Channel selection bit are effective
7	/READY	Output	TTL, L=Ready, H=Not Ready
8	ERROR	Output	TTL, H=Error, L=No Error
1, 9	GND	Input	Ground
15	+5VDC	Input	5.0±5%VDC Digital Power Supply (max50mA)
12	VM	Input	5.0±5%VDC or 12.0±5% Drive Power Supply (max500mA)
10, 13, 14	NA	NA	

DB25 Male Connector (Max. 1x128):

Pin#	Signal	I/O	Description	
15	D0	Input	TTL, Channel Selection Bit	
16	D1	Input	TTL, Channel Selection Bit	
17	D2	Input	TTL, Channel Selection Bit	
18	D3	Input	TTL, Channel Selection Bit	
19	D4	Input	TTL, Channel Selection Bit	
20	D5	Input	TTL, Channel Selection Bit	
21	D6	Input	TTL, Channel Selection Bit	
22	/RESET	Input	TTL, L: reset to channel 0, H: Channel selection bit are effective	
2	/READY	Output	TTL, L=Ready, H=Not Ready	
3	ERROR	Output	TTL, H=Error, L=No Error	
1, 10, 14, 23	GND	Input	Ground	
12, 25	+5VDC	Input	5.0±5%VDC Digital Power Supply (max50mA)	
13	VM	Input	5.0±5%VDC Power Supply	N≤64, Max. 600mA
11, 24				N≤128, Max. 800mA
4, 5, 6, 7, 8, 9	NA	NA		

CHANNEL SELECTION TABLE

Optical Path	Input							
	/RESET	D6	D5	D4	D3	D2	D1	D0
RESET	0	NA	NA	NA	NA	NA	NA	NA
Com-1	1	0	0	0	0	0	0	0
Com-2	1	0	0	0	0	0	0	1
Com-3	1	0	0	0	0	0	1	0
...	1
Com-128	1	1	1	1	1	1	1	1

TIMING DIAGRAM

