

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

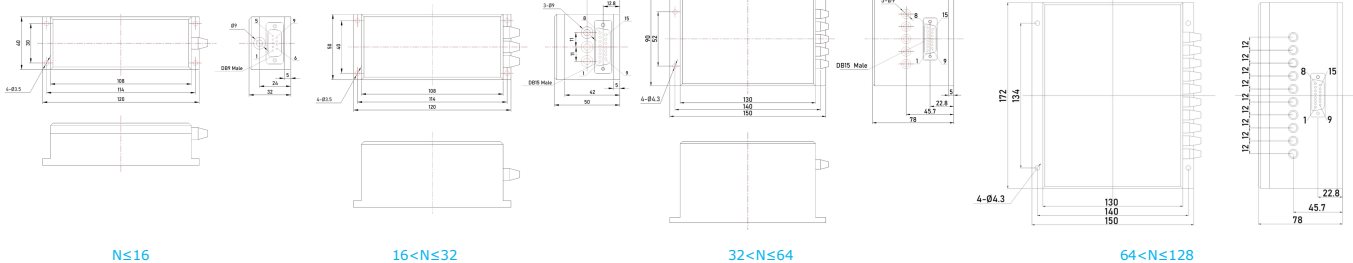
- Configurable Optical Networks
- Fiber Optic Instruments
- Optical Signal Routing
- Testing Instruments
- System Monitoring

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	≤+/-0.15		
Fiber Type	-	50/125um (OM2) or 62.5/125um (OM1) MM Fiber 50/125um OM3 MM Fiber (3) or OM4 MM Fiber(4)		
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	C	NN	- CC/CCC
Center Wavelength	Configuration	Control Interface	Fiber Type	Fiber Sleeve	Fiber Length	Connector Type		
1310= 1310nm	004= 1x4 Type	S= Serial RS232	5= 50/125um MM Fiber	B= Bare Fiber	05=0.5m	N=Without Connector		
1550= 1550nm	032= 1x32 Type	T= Serial TTL	6= 62.5/125um MM Fiber	L= Loose Tube	10=1.0m	FC/APC=FC/APC Connector		
850= 850nm	088=1x88 Type	Blank for Parallel	3= OM3 MM Fiber	2= 2mm Cable	15=1.5m	LC/PC=LC/PC Connector		
8513= 850nm&1300nm	128=1x128 Type		4= OM4 MM Fiber	3= 3mm Cable	20=2.0m	SC/UPC=SC/UPC Connector		

PIN CONFIGURATION (PARALLEL)

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

DB15 Male Connector (Max. 1x128):

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
10	D5	Input	TTL, Channel Selection Bit
13	D6	Input	TTL, Channel Selection Bit, NA for ≤1x64
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
12	VM	Input	5.0±5%VDC Drive Power Supply
14	NA	NA	

CHANNEL SLECTION 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

