OFMS Series
1x4 Optical Fiber Switches

OFMS 1x4 Series

Product Description

The OFMS series 1x4 optical fiber switch is based on Oplink's patented opto-mechanical switches with unique prism design to improve the switch repeatability and stability. The switches are designed for use in optical channel monitoring, optical cross-connect systems, and network switching for fault protection applications.

Oplink provides customized design to meet special control and applications. Also, Oplink offers modular assemblies that integrate other components to form a full function module or subsystem.

Performance Specification

Parameters	Value	Unit
Operating Wavelength Range	1528~1610	nm
Insertion loss [1,2]	< 1.6	dB
Polarization Dependent Loss	< 0.1	dB
Return Loss [2]	> 50	dB
Channel Cross Talk	> 55	dB
Repeatability	± 0.05	dB
Switching Time	< 20	ms
Optical Power Handling	300	mW
Fiber Type	Corning SMF-28	
Operating Temperature	0 ~70	°C
Storage Temperature	-40 ~ 85	°C
Switch Power Supply Voltage (Vcc)	+ 5	V
Switch Driving Current at 5V Power Supply	< 400	mA
Durability	> 10^7	Cycles
Switch Type	Latching	
Control	2 bit, Latching	
Electrical Connector Type	Samtec TW-05-03-G-D-165-115	
Dimensions	86.0 (L) x 80.0 (W) x 22.0 (H)	mm

Notes:
1) Insertion loss is specified at 23°C over all wavelength range and all SOP.
2) Insertion loss and return loss: without connectors.

Features

- Wide Operating Wavelength Range
- Fast Switch Speed
- Highly Stable & Reliable
- Low Insertion Loss
- Low PDL
- Built-in Position Monitor

Applications

- Network Monitoring and Switching
- Network Protection and Restoration
- Instrument, Testing and Measurement

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Electrical Specification

Electrical Connector Configuration

PIN#	Name	I/O	Function
1	Vcc1	Input	(5.0 ±5%) VDC Switch Power Supply (max 400 mA)
2	Agnd	Input	Analog Ground
3	D0	Input	N/A
4	D1	Input	LVTTL (Max 1.0 mA), Port Selection Bit 1
5	D2	Input	LVTTL (Max 1.0 mA), Port Selection Bit 2 (MSB)
6	Start	Input	LVTTL, Start Strobe (Negative Transition Trigger, 5 µs Minimum, 100 µs Maximum)
7	Ready	Output	LVTTL, Ready (High = Not Ready, Low = Ready)
8	Error	Output	LVTTL, Error (High = No Error, Low = Error)
9	Dgnd	Input	Digital Ground
10	Vcc2	Input	+3.3 (3.14~3.45) V Digital Power Supply (max 50mA)

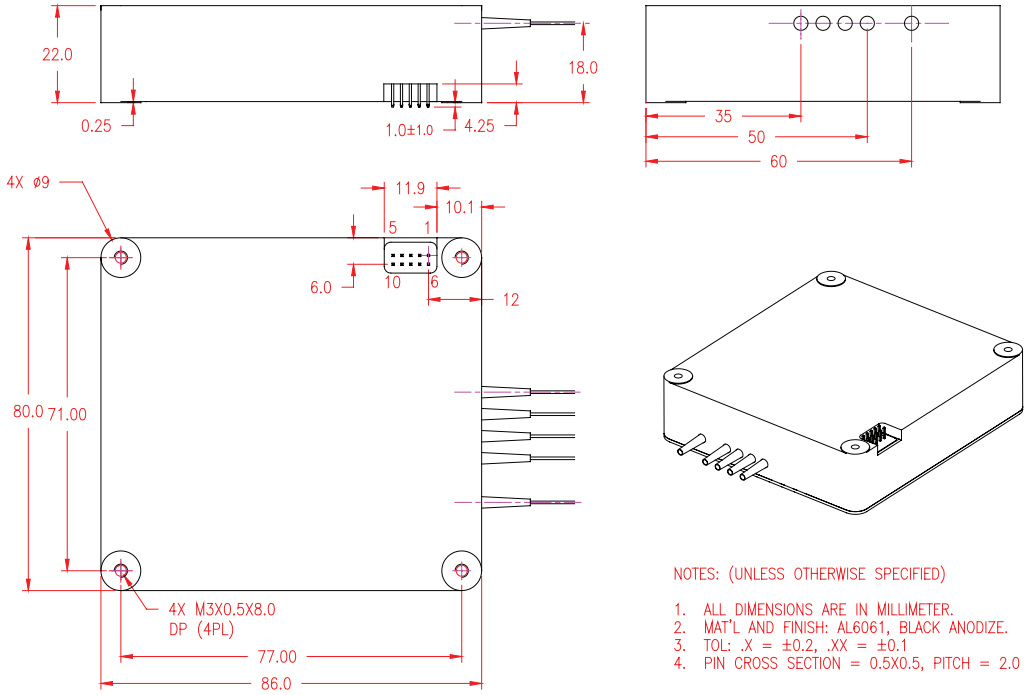
Port Selection Control Logic

Control (D2, D1)	0 0	0 1	1 0	1 1
Selected Port	1	2	3	4

Low Voltage 3.3V CMOS Logic

Command	Minimum	Maximum	Unit
High Level Input Voltage	2.0	-	V
Low Level Input Voltage	0.0	0.8	V
High Level Output Voltage	2.4	-	V
Low Level Output Voltage	0.0	0.4	V

Mechanical Drawing / Package Dimensions (dimension in mm)



NOTES: (UNLESS OTHERWISE SPECIFIED)

1. ALL DIMENSIONS ARE IN MILLIMETER.
2. MAT'L AND FINISH: AL6061, BLACK ANODIZE.
3. TOL: .X = ±0.2, .XX = ±0.1
4. PIN CROSS SECTION = 0.5X0.5, PITCH = 2.0

Ordering Information

Oplink can provide a remarkable range of customized optical solutions. For detail, please contact Oplink's OEM design team or account manager for your requirements and ordering information (510) 933-7200.

OFMS	1	4	0	0	E	0	0	1			

Wavelength
C+L bands = E

Package Type
P1 = 1

Fiber Type
250μm bare fiber = 1
900μm loose tube = 2

Fiber Length*
0.5meter = H
1.0meter = 1
1.5meter = 5
2.0meter = 2

Connector Type
None = 1
FC/PC = 2
FC/SPC = 3
FC/APC = 4
SC/PC = 5
SC/SPC = 6
SC/APC = 7
ST = 8
LC = 9
MU = A

46335 Landing Pkwy Fremont, CA 94538 Tel: (510) 933-7200 Fax: (510) 933-7300 Email: Sales@Oplink.com • www.oplink.com