

OFMS SERIES 1 X8 OPTICAL FIBER SWITCHES

OFMS 1x8 Series

Product Description

The OFMS series 1x8 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}	< 2.0	dB
Polarization Dependent Loss	< 0.2	dB
Return Loss ²	> 50	dB
Channel Cross Talk	> 50	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 (Vcc1)	+ 5	V
Switch Driving Current at 5V Power Supply	< 400	mA
Durability	> 10 ⁷	Cycles
Switch Type	Latching	
Control	3 bit, Latching	
Electrical Connector Type	Molex 87758-1016	
Dimensions (P2 package)	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
- ◆ Compact

Applications

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

Electrical Specification

Electrical Connector Configuration

PIN#	Name	I/O	Function
1	Vcc1	Input	(5.0 ±5%) VDC Switch Power Supply (max 250 mA)
2	Agnd	Input	Analog Ground
3	D0	Input	LVTTL (Max 1.0 mA), Port Selection Bit 0 (MSB)
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)

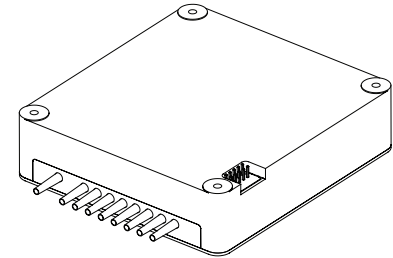
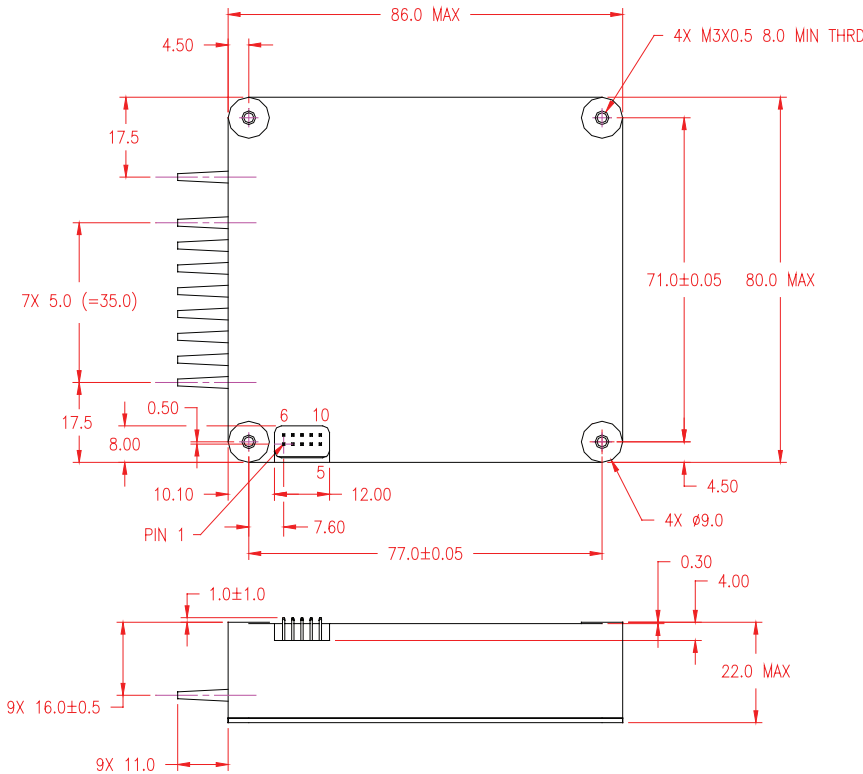
Port Selection Control Logic

Binary Control (D2, D1, D0)	000	001	010	011	100	101	110	111
Selected Port	1	2	3	4	5	6	7	8

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.

