

# OFMS SERIES SINGLE MODE 1x1, 1x2 AND 2x2 ADD/DROP OPTICAL FIBER SWITCHES

## OFMSSM Series

### Product Description

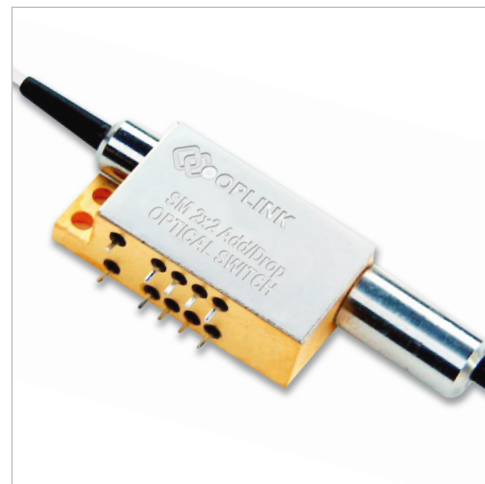
Oplink's OFMS series optical fiber switches offer industry leading performance specifications with Telcordia compliant reliability. These switches are designed for use in re-configurable optical add/drop multiplexers, optical cross-connect systems, and network switching for fault protection applications.

These patented opto-mechanical switches can be directly mounted on printed circuit boards and feature less than 0.35dB typical insertion loss. Oplink's unique prism design improves the switch repeatability and stability. The OFMS switches are GR-1221 and GR-1073 qualified.

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		Min	Typ.	Max	
Operating Wavelength Range ( $\lambda_{op}$ )		1260 ~ 1360 and/or 1510 ~ 1610			nm
Insertion Loss <sup>1,2</sup>	Single Window	1x1, 1x2	$\leq 0.5$		dB
		2x2AD	$\leq 0.6$		
	Dual Window	$\leq 0.8$			
Wavelength Dependent Loss (within each window)	Single Window	$\leq 0.15$		dB	
	Dual Window	$\leq 0.25$			
Temperature Dependent Loss		$\leq 0.2$		dB	
Polarization Dependent Loss		$\leq 0.1$		dB	
Return Loss <sup>2</sup>		$\geq 55$		dB	
Channel Cross-talk		$\geq 60$		dB	
Repeatability		$\pm 0.02$		dB	
Switching Speed		$\leq 10$		ms	
Operating Current	Latching	75	115		mA
	Non-latching	28	43		
Operating Voltage	Latching	3.5	4.5		VDC
	Non-latching	4.5	5.5		
Durability		$10^7$		cycle	
Operating Power Handling		$\geq 500$		mW	
Operating Temperature ( $T_{op}$ )		0	70		°C
Storage Temperature		-40	85		°C
Switch Relay Type		Latching or Non-latching			
Fiber Type		Corning SMF-28			
Dimension <sup>3</sup>	Bare Fiber Pigtail	P1: 41.5 (L) x 15.5 (W) x 9.1 (H)		mm	
	900 $\mu$ m Loose Tube Pigtail	P2: 44.0 (L) x 15.5 (W) x 9.1 (H)		mm	



### Features

- ◆ Telcordia Qualified
- ◆ 1x1, 1x2 and 2x2 (Add/Drop)
- ◆ Compact Size
- ◆ Low Insertion Loss
- ◆ Seam-seal Package
- ◆ Latching or Non-latching Configurations
- ◆ Highly Stable & Reliable

### Applications

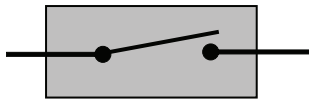
- ◆ Network Switching
- ◆ Configurable Add/Drop
- ◆ Network Protection and Restoration
- ◆ Instrumentation, Testing and Measurement

### Compliance

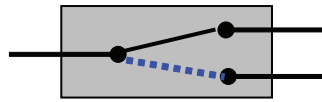
- ◆ Telcordia GR-1221 and GR-1073

Notes:

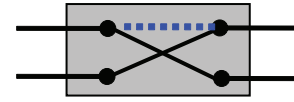
- 1) 23°C over operating wavelength range and all SOP.
- 2) Excluding connectors.
- 3) P2 package option is for pigtail fiber with 900  $\mu$ m loose tube.

**OFMSSM SERIES**
**Function Diagram**


1x1 On/Off Switch



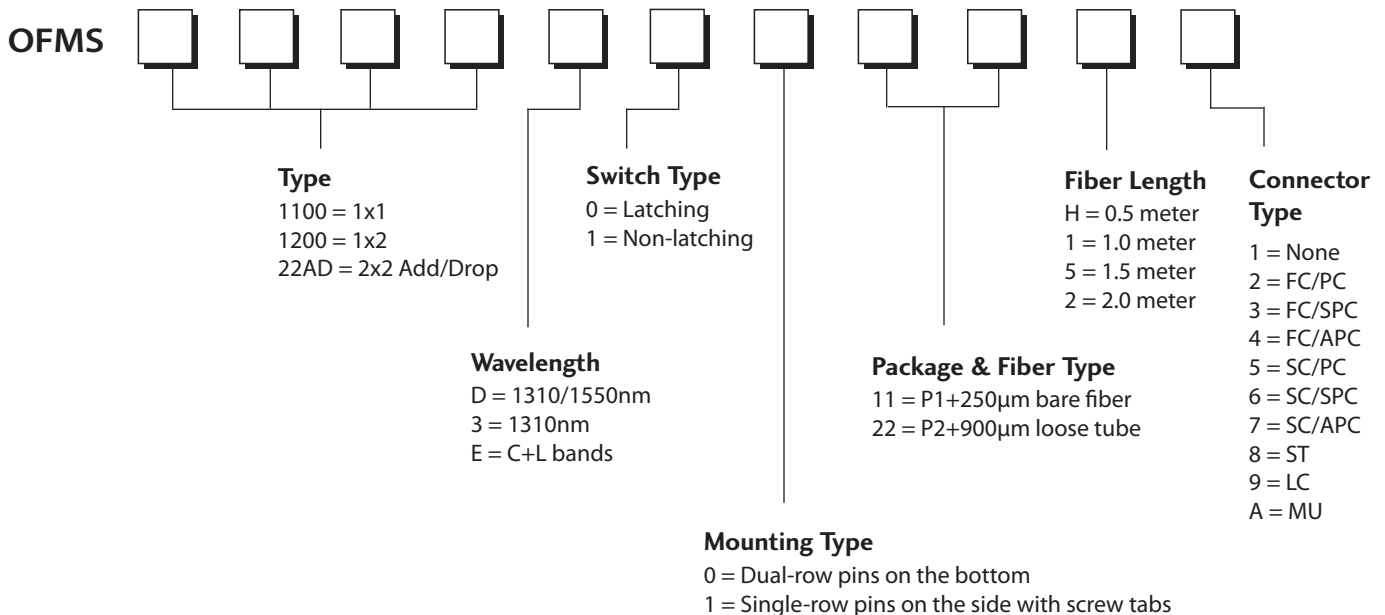
1x2 Switch



2x2 Add/Drop Switch

**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.



\*The tolerance of fiber length is +/-0.1m.