

# Optical Switch MEMS – OSSM Series



## Key Features

Excellent repeatability

Exceptional lifetime with no degradation

Simple and easy GUI

Multiple configurations available

RS-232 and Ethernet SCPI Interface – GPIB optional

## Overview

The **PhotonCom Optical Switch MEMS – OSSM Series** uses a solid-state MEMS optical core to rapidly and effectively switch light from a common path to one of multiple output paths with low insertion loss and high repeatability. This programmable switch can be controlled using the front panel keys, via RS-232, Ethernet or through simple web interface.

The **OSSM (Optical Switch Single-Mode) Series** is offered in a compact 1U to 4U standard 19" rackmount chassis. Its switching system allows for a longer operational life, as well as reduces risk of downtime associated with any electromechanically driven assembly. It is an affordable solution for replacing aging electromechanical switches.

## Applications

Components manufacturing

Multi-unit testing

Measurement and Instrumentation

Research and Development

Telecommunications environment

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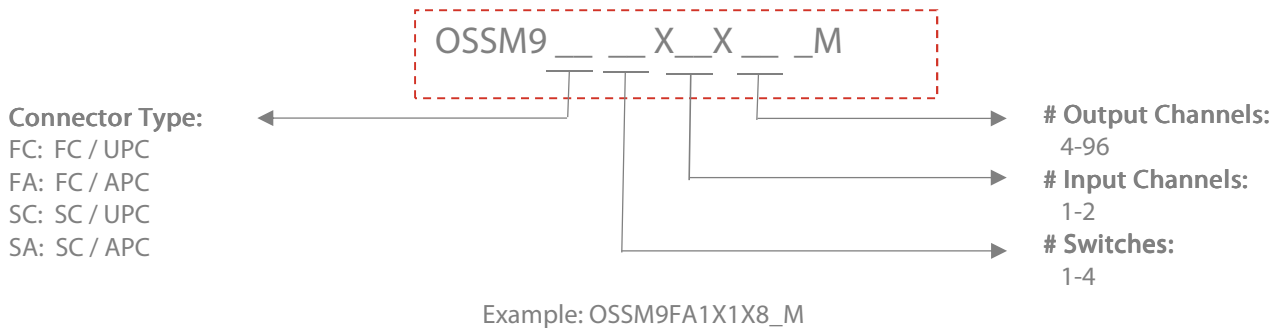
## Optical Specifications (including connectors)

Wavelength range	1260 nm to 1640 nm	
Insertion loss	1.2 dB typical, < 2.5 dB maximum	(Value at 25 °C)
Crosstalk	-75 dB typical, -60 dB maximum	
Return Loss	35 dB with straight connector, 50 dB with angled connector	
Switching time (adjacent channels)	180 ms typical	
Repeatability (after 100 cycles)	0.002 dB typical, 0.01 dB maximum	(For constant temperature and polarization)
Polarization Dependent Loss	0.05 dB typical, 0.12 dB maximum	
Durability	Over 1 billion cycles without degradation	
Maximum input optical power *	27 dBm (500 mW)	
Fiber Type	Single-Mode 9/125 μm	

> Product specifications and descriptions provided in this document are subject to change without notice

\* MEMS products are sensitive to short wavelengths; using any visible light source higher than 3mW could **permanently damage** the product and void the warranty

## Ordering information



> Custom configurations are available upon request.

> Rack slot units – Switch configuration relationship examples:

1U: < 24 bulkheads: 1x1x4, 1x1x8, 1x1x16, 2x1x8, 4x1x4

2U: < 50 bulkheads: 1x1x24, 1x1x36, 1x1x16, 1x1x48, 1x2x48

3U: < 74 bulkheads: 1x1x72

4U: < 98 bulkheads: 1x1x96, 1x2x96