



# MEMS Optical Switch

## OSX-150



### Product Overview

The OSX-150 Optical Switch features the latest in MEMS technology for high-speed applications. With excellent repeatability and low loss, the OSX-150 is ideally suited for automation applications where switching time needs to be minimized or space is at a premium.

Available in 9 μm single-mode fiber, custom configurations and path routings are available upon request.

The switch can be controlled through USB or Ethernet and the front panel bulkheads fitted with FC, SC or LC connector types.

#### Features

- High reliability MEMS
- Switching time < 10 ms
- Small footprint
- Up to 1x36 without cascading
- Max input power < 27 dBm



#### Applications

- Line protection and redundancy
- Remote network monitoring
- By-pass switching
- Resource sharing

### OSX Optical / Electrical Specifications

Parameter	Specification			
	Single-mode			
Fiber Type	9/125			
Wavelength Range (nm)	1250 to 1670			
Channel Count (1xN)	< 4	< 16	< 24	< 36
Insertion Loss (dB) <sup>1,2</sup>	< 1.0	< 1.2	< 1.5	< 2.0
Backreflection (dB) <sup>1</sup>	< -50			
PDL (dB)	< 0.1			
Repeatability (dB) <sup>3</sup>	± 0.01			
Crosstalk (dB)	< -50			
Maximum Input Power (dBm) <sup>4</sup>	27			
Switch Life	No wear out			
Switching Time (ms) <sup>5</sup>	< 25			
Remote Interface	USB or Ethernet			
Display	Optional 5" touch screen			
Input Voltage	100 - 240 V AC, 50 - 60 Hz			
Power Consumption (VA)	60 maximum			

Notes:

<sup>1</sup> excluding connectors

<sup>2</sup> at 25 °C and 1550 nm. Add 0.5 dB over full wavelength range.

<sup>3</sup> for constant temperature.

<sup>4</sup> it is recommended to turn off the laser during switch transients when switching optical power above 20 dBm

<sup>5</sup> 25ms switching time when the signal stabilizes within +/- 0.02dB

### Max Channel Count (1A Configuration, Front Panel Bulkheads)

Conector Type	Chassis Size		
	1H	2H	2F
With 5" Touchscreen			
FC	N/A	12	36
SC (duplex)		18	36 <sup>1</sup>
LC (quad)		36	36 <sup>1</sup>
Without Display			
FC	16	36	36 <sup>1</sup>
SC (duplex)	16	36 <sup>1</sup>	36 <sup>1</sup>
LC (quad)	36	36 <sup>1</sup>	36 <sup>1</sup>
Maximum 80% RH at 40°C			

Notes:

<sup>1</sup> higher port count available in other configurations

## OSX Mechanical / Environmental Specifications

Parameter	Specification		
	1H	2H	2F
Unit Dimension W x H x D (cm) <sup>1</sup>	22.5 x 4.5 x 32.5	22.5 x 9 x 32.5	45 x 9 x 32.5
Unit Weight (kg)	6	8	12
Shipping Box Dimensions W x H x D (cm)	36.5 x 39 x 53	36.5 x 39 x 53	36.5 x 36 x 53
Volumetric Weight (kg) <sup>2</sup>	15	15	15
Operating Temperature (°C)	0 to 55		
Storage Temperature (°C)	-40 to 70		
Humidity (Non-condensing)	Maximum 80% RH at 40°C		

Notes:

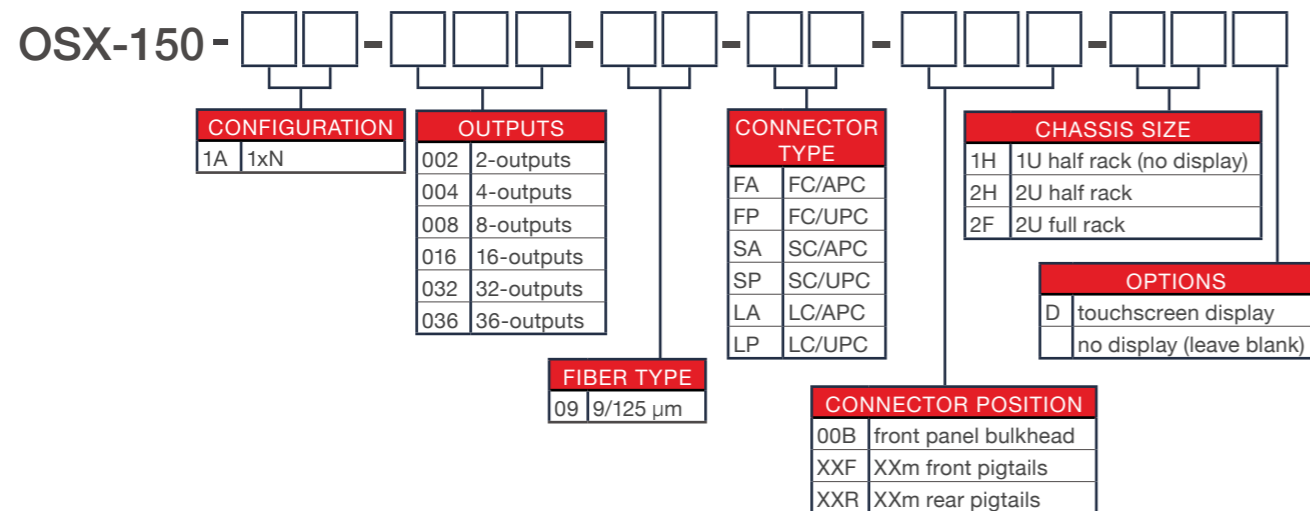
<sup>1</sup> excluding removable rubber bezels. Add 1.5 cm to W and 3.5 cm to H with the removable rubber bezels.

<sup>2</sup> W\*H\*C / 5000



## Ordering Scheme & Instructions

### 1. Configure OSX-150 MEMS Optical Switch



## 2. Add Accessories

### 2U-Rack-Short-Ear

2U Rack Short Ear



### 2U-Rack-Long-Ear

2U Rack Long Ear Filler Plate



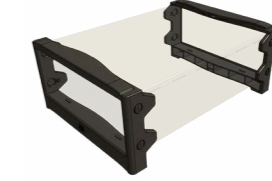
### 2U-Connector-Plate

2U Chassis Connector Plate



### 2U-Bezel

2U Rubber Bezels



## In the Box

### OSX-150 - MEMS Optical Switch

- OSX-150
- AC power cord
- Test report



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