

OSX-100

Optical Switch



Product Overview

The OSX Optical Switch, OSX-100, is a customizable benchtop/rackmount instrument ideal for high-volume manufacturing production testing. Available in single-mode or multimode, channel counts range from 1x2 up to 1x400. Extra common inputs are possible by adding a 1xN or in 2B or 2C configurations. A variety of other path routing configurations 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

- Up to 400 outputs
- Ultra low IL < 0.5 dB
- ± 0.005 dB repeatability
- Crosstalk < -80 dB
- Customization available



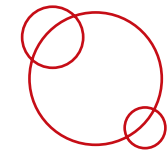
Applications

- High-volume production testing
- Multiple device testing
- Test automation
- Pair with RLM for multifiber testing



Compliance

- UL/CSA 61010
- IEC 61010
- FCC Part 15 (Class A)
- EN 61326 (Class A)



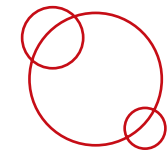
Invisible

In all aspects, OSX-100 is designed to be invisible within your application. Its repeatability of ± 0.005 dB makes it ideal for any automated or long term measurement application and IL < 0.5 dB makes it a perfect fit for tight IL budgets. Each channel will maintain a high signal-to-noise ratio thanks to the OSX's excellent crosstalk < -80 dB.

Benchtop or Rackmount

OSX-100 is available in 3 form factors:

- 2U half rack benchtop up to 48 ch (rack ears available)
- 3U full rack up to 185 ch
- 6U full rack up to 400 ch

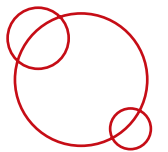


Use with the RLM Return Loss Meter

OSX-100 can be connected directly to an RLM for multifiber testing. The RLM takes full control of the switch, automating measurements while storing all references and results. If desired, a second OSX switch can be connected to measure insertion loss, return loss, and verify mapping of multifiber connectors or complex assemblies.

Customizable

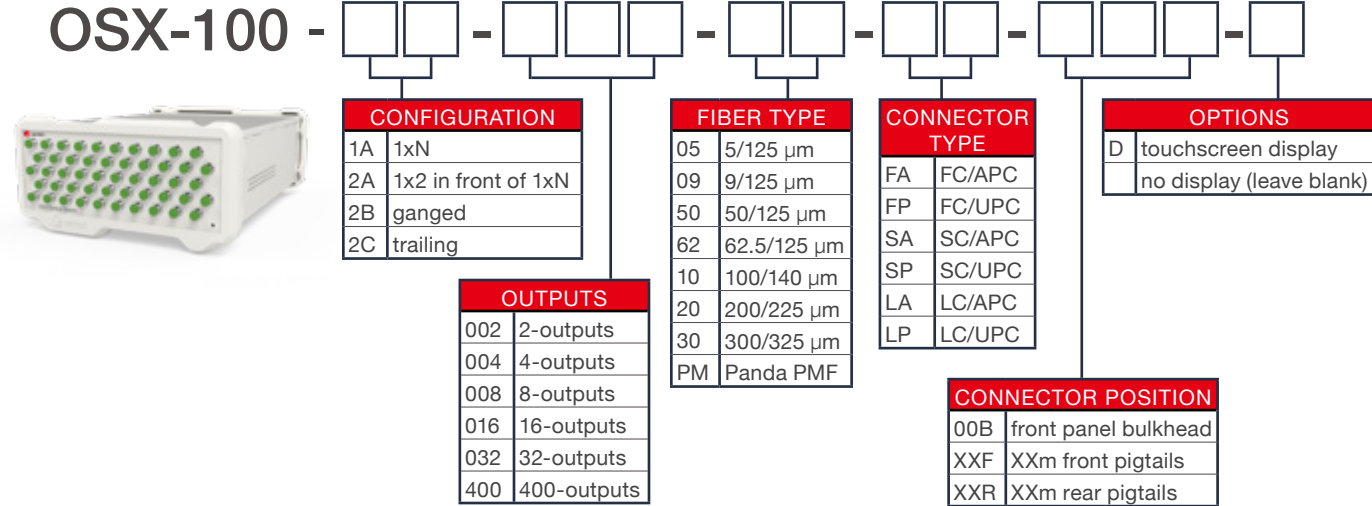
OSX-100 switch can be customized to suit your needs at no additional cost. If you need multiple switches of different configurations within one chassis or a custom spliced schematic including couplers or various output connector types, talk to us and we'll make it happen!



Ordering Scheme & Instructions

1. Configure OSX optical switch

Opto-mechanical version



2. Add Accessories

2U-Rack-Short-Ear

2U Rack Short Ear



2U-Rack-Long-Ear

2U Rack Long Ear Filler Plate



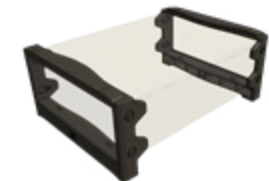
2U-Connector-Plate

2U Chassis Connector Plate

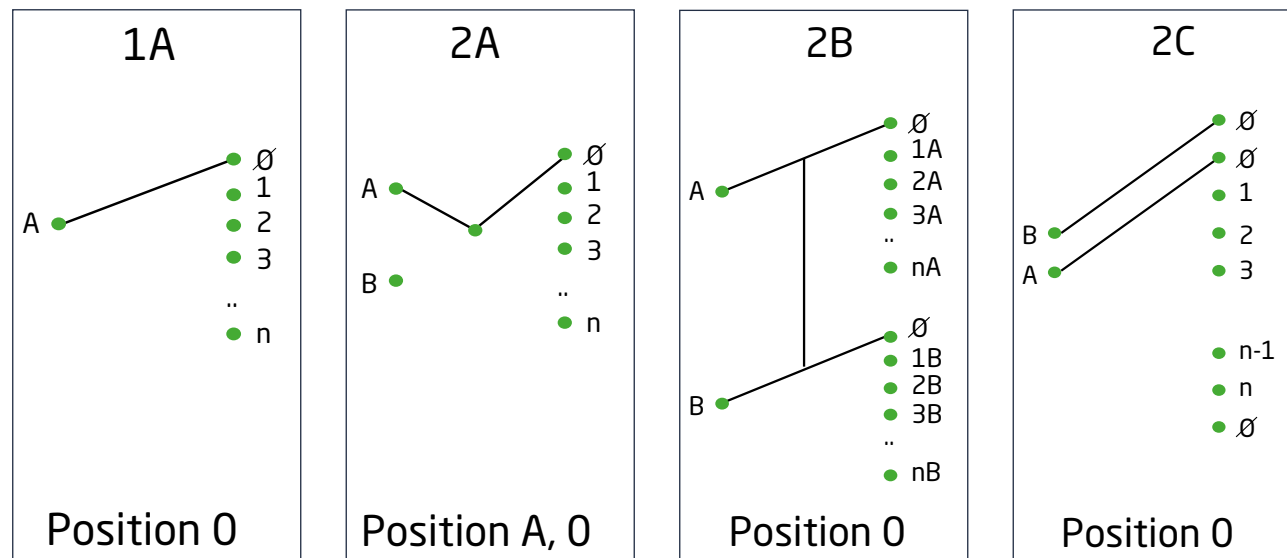


2U-Bezel

2U Rubber Bezels



Configuration Options



1A Configuration

Single input, switched to any output

2A Configuration

Two switchable inputs, switched to any output

2B Configuration

Two inputs switched to synchronized outputs

2C Configuration

Two inputs switched to any output with second input trailing first input



OSX Optical / Electrical Specifications

Parameter	Specification			
	Single-mode		Multimode	
Fiber Type	9/125	Panda PM	50/125	62/125
Wavelength Range (nm)	1250-1670		840-1350	
Insertion Loss (dB) ^{1, 2, 3}	≤0.5	≤1.0	≤0.5	
Backreflection (dB) ¹	≤-60		≤-40	
PDL (dB) ²	≤0.05	N/A	N/A	
PER (dB) ^{1, 2}	N/A	≥23	N/A	
Repeatability (dB) ^{2, 4}	± 0.005			
Crosstalk (dB)	<-80			
Maximum Input Power (dBm)	23			
Switch Life	10 ⁸ cycles			
Switching Time (ms)	300			
Remote Interface	Ethernet / USB			
Input Voltage	100 - 240 V AC, 50 - 60 Hz			
Power Consumption (VA)	60 maximum			
Display	Optional 5" touch screen			

Notes:

¹ Excluding Connectors

² Standard switch size (< 80 ch), 1A and 2B configurations.

³ Add 0.2 for 2C and 0.7 for 2A.

⁴ Sequential switching. Add + 0.02 for random.

Mechanical / Environmental Specifications

Parameter	Specification					
	2U half rack		3U full rack		6U full rack	
Max Channel Count	FC	SC	FC	SC	FC	SC
Without Touchscreen (front panel output)	1x48		1x185	1x135	1x400	
With 5" Touchscreen (front or back panel output)	1x12	1x24	1x125	1x95	1x360	
Unit Dimensions W x H x D (cm)	23.5 x 12 x 32.5		44.5 x 13.5 x 45		44.5 x 26.6 x 49.6	
Shipping Box Dimensions W x H x D (cm)	36.5 x 39 x 53		53 x 32 x 57		55 x 55 x 55	
Unit Weight (kg)	8		14		16	
Total Shipment Weight (kg)	9		15		17	
Operating Temperature (°C)	0 to 55					
Storage Temperature (°C)	-40 to 70					
Humidity (Non-Condensing)	Maximum 95% RH from 0 to 40C					

Mechanical / Environmental Specifications

Parameter	Specification
Unit Dimensions W x H x D (cm)	48.3 x 4.4 x 45.7
Shipping Box Dimensions W x H x D (cm)	53 x 20 x 55
Unit Weight (kg)	5
Total Shipment Weight (kg)	6
Operating Temperature (°C)	0 to 55
Storage Temperature (°C)	-40 to 70
Humidity (Non-Condensing) (°C)	Maximum 95% RH from 0 to 40



In the Box

OSX-100 - Optical Switch

- OSX-100
- USB A to USB B cable (1.5 m)
- Ethernet cable (1.5 m)



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OSX-100-C-E/Ver.1.1 CODE-202303-MB-KT-CPY