

MAP Small Channel Count Switch (mSCS-A1)



Key Features

- Insertion loss (IL) <0.8 dB and return loss (RL) >55 dB
- Low polarization dependent loss (PDL) 0.08 dB
- Up to 8 switches per cassette
- Can be automated when used with MAP-200 LXI™-compliant interfaces and IVI drivers

Applications

- Dense wavelength division multiplexing (DWDM) channel testing
- Amplifier characterization
- Bit error rate (BER) testing
- Signal routing

Safety Information

- The MAP Small Channel Count Switch, installed in a MAP chassis, complies to CE, CSA/UL/IEC61010-1, plus LXI Class C requirements.

The Multiple Application Platform (MAP) Small Channel Count Switch (mSCS-A1) is optimized for the industry-leading JDSU MAP-200 platform. Based on the previous-generation MAP, the MAP-200 is the first photonic layer lab and manufacturing platform that is LAN Extensions for Instrumentation (LXI)-compliant by conforming to the required physical attributes, Ethernet connectivity, and interchangeable virtual instrument (IVI) drivers. The MAP-200 platform is optimized for density and maximum configurability to meet specific application requirements in the smallest possible footprint.

The mSCS-A1 is based on optical prism and mirror technology that directs incident light into selected output channels. It is available in 1x2 and 2x2 configurations and supports multiple devices per MAP cassette, single-mode or multimode fiber, and four connector types. An important element of an optical test bed, optical switches increase throughput by enabling time-saving automation, reducing uncertainty from repeated connector mating, and maximizing expensive testers.

Common Specifications

Parameter	Specifications	
	Single-Mode (SM)	Multimode (MM)
Wavelength	1310 and 1550 nm	850 and 1310 nm
Insertion loss (IL) ¹		
1 x 2	≤0.8 dB	≤0.8 dB
2 x 2	≤1.0 dB	≤1.1 dB
Return loss (RL) ¹	>55 dB	>20 dB
Polarization dependent loss (PDL) ¹	≤0.1 dB	N/A
Repeatability	±0.05 dB	±0.02 dB
Crosstalk	<-60 dB	<-35 dB
Optical input power	300 mW	300 mW
Switching speed	10 ms	
Latching	Yes	No
Lifetime	>10 million cycles	
Operating temperature	0 to 50°C	
Storage temperature	-30 to 60°C	
Humidity	90% relative, non-condensing	
Dimensions (W x H x D)	4.06 x 13.26 x 37.03 cm (1.6 x 5.22 x 14.58 in)	
Weight	1.1 kg (2.43 lb) maximum (varies with configuration)	

1. Unless otherwise specified, all specifications at start of life at 23°C ±3°C, 45% RH ±5% and optical input power of -25 to 0 dBm, excluding connectors