

MAP Large Channel Count Switch



For stand-alone applications, the MAP Large Channel Count Switch may be used as a benchtop

Key Features

- Low IL < 0.7 dB
- Low polarization dependent loss (PDL) 0.04 dB
- Wide wavelength range
- High RL > 57 dB

Applications

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

The Multiple Application Platform (MAP) Large Channel Count Switch Cassette is bidirectional and allows the connection of a common port to any number of channels up to 50. The cassette is available in single or dual-switch configurations.

The MAP switch cassette is based on JDSU expanded beam and alignment technologies and exhibits low insertion loss (IL) and high return loss (RL).

Safety Information

- This cassette, when installed in a MAP chassis, complies to CE requirements plus UL3101-1 and CAN/CSA-C22.2 No. 1010.1.

Specifications

Parameter	Single-mode fiber SMF 9/125 Typical / Maximum	Multimode fiber MMF 50/125 and 62.5/125 Typical / Maximum
Wavelength range (N = number of output channels)	1270 to 1670 nm	850 to 1350 nm, 750 to 940 nm
Insertion loss (IL)		
N ≤ 25	0.5 dB / 0.7 dB	0.4 dB / 0.6 dB
N > 25	0.8 dB / 1.2 dB	0.7 dB / 1.0 dB
Polarization dependent loss (PDL) ¹		
N ≤ 25	0.02 dB / 0.04 dB	N/A
N > 25	0.04 dB / 0.08 dB	N/A
Return loss (RL) ²		
N ≤ 25	62 dB / 57 dB	25 dB / 20 dB
N > 25	55 dB / 45 dB	20 dB / 20 dB
IL Stability		
N ≤ 25		± 0.02 dB / ± 0.025 dB
N > 25		± 0.03 dB / ± 0.04 dB
Repeatability sequential switching		
N ≤ 25		± 0.005 dB / ± 0.01 dB
N > 25		± 0.01 dB / ± 0.03 dB
Repeatability random switching		
N ≤ 25		± 0.01 dB / ± 0.05 dB
N > 25		± 0.03 dB / ± 0.08 dB
Crosstalk		
N ≤ 25		- 80 dB / N/A
N > 25		- 80 dB / N/A
Switching time (first channel / each additional channel)		25 ms / 15 ms
Maximum input power (optical)		300 mW
Lifetime		> 100 million cycles
Operating temperature		- 5 to 55 °C
Storage temperature		- 30 to 60 °C
Dimensions (W x H x D)		4.06 x 13.24 x 39.5 cm
Weight		1.3 kg maximum (varies with configuration)

1. Excluding connectors. All optical measurements taken after temperature has been stabilized for one hour.

2. RL is based on 1 m pigtail (equivalent to bulkhead version).

Ordering Information

For more information on this or other products and their availability, please contact your local JDSU account manager or JDSU directly at 1-800-498-JDSU (5378) in North America and +800-5378-JDSU worldwide or via e-mail at customer.service@jdsu.com.

Sample: MAPS+1K70104N1FP

MAPS+1K

Code	Fiber Type (μm)
18	50/125, 850 to 1310 nm
28	62.5/125, 850 to 1310 nm
70	9/125, 1270 to 1670 nm

Code	Switch Configuration
104N1	Single switch, 1 x 04, non-latching, bulkheads
106N1	Single switch, 1 x 06, non-latching, bulkheads
108N1	Single switch, 1 x 08, non-latching, bulkheads
112N3	Single switch, 1 x 12, non-latching, pigtail 2 m long
116N3	Single switch, 1 x 16, non-latching, pigtail 2 m long
124N3	Single switch, 1 x 24, non-latching, pigtail 2 m long
132N3	Single switch, 1 x 32, non-latching, pigtail 2 m long
142N3	Single switch, 1 x 42, non-latching, pigtail 2 m long
150N3	Single switch, 1 x 50, non-latching, pigtail 2 m long
204N1	Two switches, 1 x 4, non-latching, bulkheads
208N3	Two switches, 1 x 08, non-latching, pigtail 2 m long
212N3	Two switches, 1 x 12, non-latching, pigtail 2 m long
216N3	Two switches, 1 x 16, non-latching, pigtail 2 m long
225N3	Two switches, 1 x 25, non-latching, pigtail 2 m long

Code	Connector Type
FP	FC/PC
FA	FC/APC
SC	SC/PC
SU	SC/APC



If the configurations available do not meet your performance requirements, please contact our global sales and customer service team to discuss the potential for specialized solutions.

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MAP Small Channel Count Switch



For stand-alone applications, the MAP Small Channel Count Switch may be used as a benchtop

Key Features

- Low insertion loss (IL) < 0.8 dB
- Low polarization dependent loss (PDL) 0.08 dB
- High return loss (RL) > 55 dB
- Up to 8 switches per cassette

Applications

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

The Multiple Application Platform (MAP) Small Channel Count Switch is a single width cassette that is able to accommodate a number of switches with varying channel counts.

The switch redirects input light by an optical prism or mirror into a selected output channel. The switch is bidirectional, transparent to signal format, available in both single-mode (SM) and multimode (MM) versions.

Special density and functionality cassettes can be made available on a custom order basis.

Safety Information

- This cassette, when installed in a MAP chassis, complies to CE requirements plus UL3101-1 and CAN/CSA-C22.2 No. 1010.1.

Common Specifications

Parameter	Specifications	
	Single-Mode (SM)	Multimode (MM)
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) ²	> 55 dB	> 20 dB
Polarization dependent loss (PDL) ²	≤ 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	8 ms	10 ms
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 13.24 x 39.5 cm	
Weight	1.1 kg maximum (varies with configuration)	

1. Unless otherwise specified, all specifications at start of life at 23 °C ± 3 °C and 45 % RH ± 5 %.
2. At 23 °C ± 3 °C at specified test wavelengths (850/1310 MM or 1310/1550 SM) and optical input power of -25 to 0 dBm, excluding connectors.
3. Drift of any channel at ± 3 °C deviation of ambient temperature without changing channels (excludes repeatability).
4. Repeatability as per Telcordia GR-1073-CORE (100 cycles, max-min/peak-to-peak).

Ordering Information

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Single-Mode Sample: MAPS+2W7323FPL

MAPS+2W

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Code	Fiber Type (μm)
73	9/125, 1310/1550 nm

Code	Number of Independent Switches
1	One switch per cassette
2	Two switches per cassette
4	Four switches per cassette
6	Six switches per cassette
8	Eight switches per cassette

Code	Type of Switches
2	1 x 2
A	2 x 2

Code	Port Type
1	Bulkheads (only for one or two switches)
3	Pigtails (2 m long)

Code	Connector Type (all ports)
FP	FC/PC
FA	FC/APC
SC	SC/PC
SU	SC/APC

L

Code	Latching
L	Latching

Multimode Sample: MAPS+2W162T1FP

MAPS+2W

Code	Fiber Type (μm)
16	50/125, 850/1310 nm
26	62.5/125, 850/1310 nm

Code	Type of Switches
T	1 x 2
X	2 x 2

Code	Port Type
1	Bulkheads
3	Pigtails (2 m long)

Code	Connector Type (all ports)
FP	FC/PC
FA	FC/APC
SC	SC/PC
SU	SC/APC

Code	Latching
Blank	Non-latching

Code	Number of Independent Switches
1	One switch per cassette
2	Two switches per cassette

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MAP RF Switch



For stand-alone applications, the MAP RF Switch may be used as a benchtop

Key Features

- Single or independent dual
- 1 x 2 and bypass versions
- Mechanically latching
- Built-in 50 Ohm terminations

Applications

- Data source selection
- Routing to main analyzer

Configurations

- Single 1 x 2, dual independent 1 x 2
- Single bypass, dual independent bypass

Safety Information

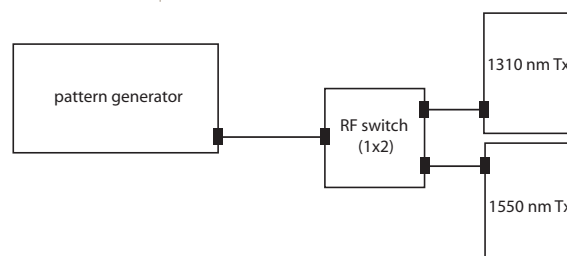
- This cassette, when installed in a MAP chassis, complies to CE requirements plus UL3101-1 and CAN/CSA-C22.2 No. 1010.1.

The Multiple Application Platform (MAP) RF switch cassette is a 50 Ohm coaxial switch for routing RF and microwave signals at frequencies up to 26.5 GHz. Comprising of single and dual 1 x 2 and bypass-type switches, these cassettes are an ideal solution for routing 10 Gb signals between power meters, receivers, and spectrum analyzers. The switches are based on mechanical latching actuators with a million-cycle lifetime.

The single and independent dual 1 x 2 configurations units feature dual built-in 50 Ohm terminators for each of the unused ports, allowing efficient use as an A-or-B source selector.

The single and independent dual bypass switches feature a single built-in 50 Ohm termination on one of the 'insert' loop ports which is activated when switch is in the bypass [straight through] state.

MAP RF Switch Application



Specifications

Parameter	Specification
Frequency range	DC to 26.5 GHz
Insertion loss (IL)	0.25 dB: DC to 2 GHz 0.50 dB: 2 to 18 GHz 1.25 dB: 18 to 26.5 GHz
IL repeatability	0.03 dB: DC to 18 GHz 0.50 dB: 18 to 26.5 GHz
Isolation	90 dB: DC to 18GHz 50 dB: 18 to 26.5GHz
SWR through line	< 1.15: DC to 2 GHz < 1.25: 2 to 12.4 GHz < 1.40: 12.4 to 18 GHz < 1.80: 18 to 26.5 GHz
SWR into load	< 1.15: DC to 2 GHz < 1.25: 2 to 12.4 GHz < 1.30: 12.4 to 18 GHz < 1.80: 18 to 26.5 GHz
Connectors	3.5 mm female

Ordering Information
Sample: MAPS+1R112
MAPS+1R 

Code	Number of Switches
1	1 switch
2	2 independent switches



Code	Type of Switch
12	1 x 2 switch
2B	Bypass
MX	1 x 2 and bypass

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