

Product Bulletin



Single-Mode Splitter Series

Single-mode optical power splitters, available in 1 x n and 2 x n configurations, uniformly divide optical signals from input ports to multiple outputs. JDS Uniphase provides splitters with 4, 8, 16 or 32 output ports.

These devices can be operated in the reverse direction to combine multiple wavelengths onto one or two fibers. Optical power splitting is performed by planar silica glass optical waveguide chips integrated with cascaded y-branches.

Advantages of planar-type devices are high uniformity, low insertion loss, broadband performance over both 1310 nm and 1550 nm windows, compact size and environmentally stable, compact packaging.

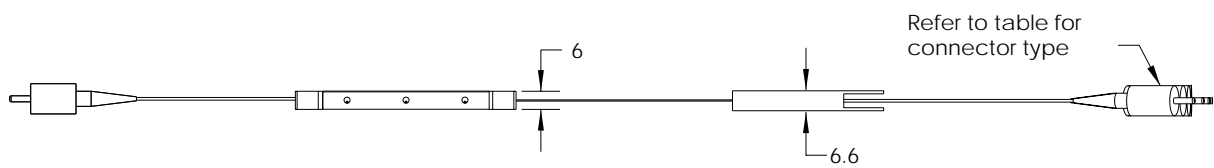
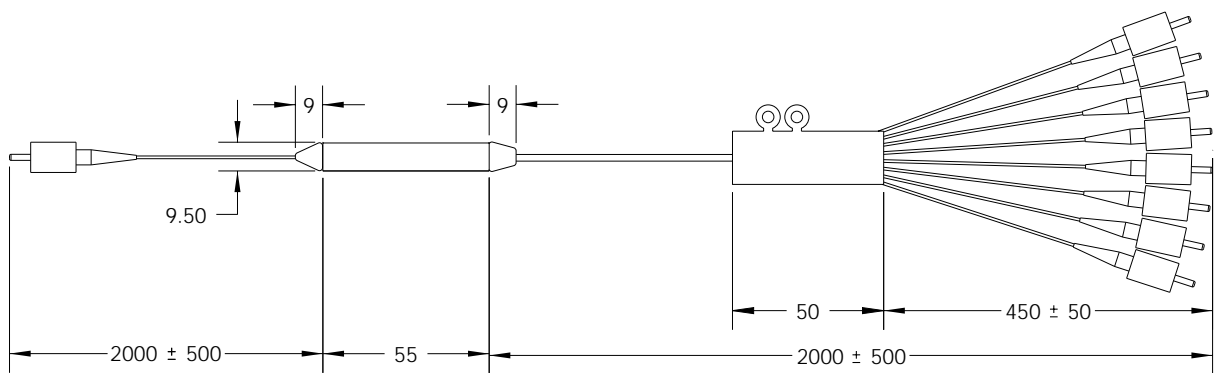
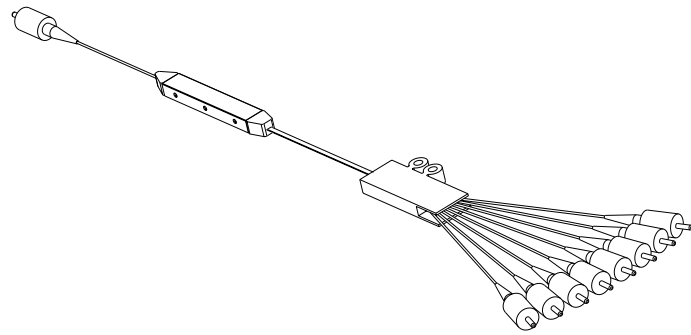
Key features

- Single-mode
- Up to 32 outputs standard
- Wavelength and polarization independent
- Available in 1 x n or 2 x n configurations

Applications

- Fiberoptic equipment and systems (OEM)
- CATV
- Data communications

Outline Drawing



Notes:
Fiber lengths not to scale.
All dimensions in mm. Tolerance = ± 0.1 mm.

Single-Mode Splitters Performance

	Model Number							
	SM-1x4-	SM-1x8-	SM-1x16-	SM-1x32-	SM-2x4-	SM-2x8-	SM-2x16-	SM-2x32-
	M-x/y	M-x/y	M-x/y	M-x/y	M-x/y	M-x/y	M-x/y	M-x/y
	1 x n, 2 x n							
	1 x 4	1 x 8	1 x 16	1 x 32	2 x 4	2 x 8	2 x 16	2 x 32
Characteristics								
Insertion Loss¹								
Typical	≤6.8 dB	≤10.1 dB	≤13.7 dB	≤17.2 dB	≤7.3 dB	≤10.8 dB	≤14.0 dB	≤17.5 dB
Maximum	≤7.3 dB	≤10.7 dB	≤14.5 dB	≤18.2 dB	≤8.0 dB	≤11.6 dB	≤15.0 dB	≤18.5 dB
Uniformity ²	≤0.8 dB	≤1.0 dB	≤1.5 dB	≤2.5 dB	≤1.5 dB	≤1.7 dB	≤2.2 dB	≤3.2 dB
Uniformity ² w/connector	≤1.1 dB	≤1.3 dB	≤1.8 dB	≤2.8 dB	≤1.8 dB	≤2.0 dB	≤2.5 dB	≤3.5 dB
PDL ³	≤0.3 dB							
Return Loss	≥55 dB for devices w/o connectors, ≥35 dB w/ connectors depending on type ⁵							
Directivity	≥55 dB for devices w/o connectors, ≥35 dB w/ connectors depending on type ⁵							
Operating Wavelength	1.26 to 1.60 μm							
Operating Temperature Range	-40 to 85°C							
Pigtail Options (x in part number)	-R: Output fibers are ribbonized 250 μm SM fiber in 4- or 8-fiber ribbon format. No connectors. -MU, -FC, -LC, -SC: For 2 to 4 output ports, all fibers are 900 μm tight buffer with specified connector. For >4 output ports, ribbon fiber will be used with a fan-out to 250 μm fiber with 900 μm loose tube buffer.							
Connector Polish (y in part number)	For connectorized pigtails only, add/y to part number: /SPC, /UPC, /APC.							
Nominal Case Size ⁴ (L x W x H mm)	55x9.5x6	55x9.5x6	55x9.5x6	85x15x6	55x9.5x6	55x9.5x6	65x9.5x6	85x15x6

Notes

- For devices with connectors add 0.6 dB to loss values (0.3 dB/connector).
- Uniformity: Loss difference between maximum and minimum output ports.
- Polarization Dependent Loss.
- Rubber strain relief adds 9 mm in length to each end.
- Device Return Loss and Directivity with connector polish.
 - For SPC ≥45 dB
 - For UPC ≥55 dB
 - For APC ≥55 dB

Options:

Contact JDS Uniphase for connectors, packaging and mounting brackets.

(V1) 2/15/01

Specifications subject to change without notice.

Ordering information

For more information on this or other products and their availability, please contact your local JDS Uniphase sales representative or JDS Uniphase directly at 614 876-5655, or by fax 614 876-5726, or via email at sales.oh@us.jdsuniphase.com. Visit our Web site at www.jdsuniphase.com.



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