

Product Bulletin



The asymmetric fused couplers are compact, low-loss components (1x2 or 2x2) that are bidirectional and provide a means of splitting or combining optical signals. They are designed for use in telecommunications equipment, passive telephony or CATV networks, test equipment, and fiber sensors. The coupler is particularly useful as a power tap, for assembling symmetric trees with arbitrary port counts, and for optimizing power budgets in passive networks. It uses advanced fused-fiber technology to yield ultra-low excess loss and low polarization dependent loss (PDL) in a compact package. The coupler is available for use at 1300 and/or 1550 nm or at 1585 nm wavelengths. The couplers are also available for operation at 1310 or 1310/1550 nm wavelengths and with various coupling ratios other than those listed.

Asymmetric Fused Couplers

Key Features

- Ultra-low excess loss
- Low PDL
- Single-wavelength, wavelength-flattened and wideband versions

Applications

- Passive optical networks

Asymmetric Fused Couplers | 2

Specifications

Parameter	Asymmetric Fused Couplers										
Operating wavelength(s)	Single wavelength (1300, 1550, or 1585 nm), Wavelength flattened (1300 ±20, 1550 ±20, or 1585 nm ±20), or Wideband (1300 ±20 and 1550 nm ±20)										
Coupling ratio	60/40		70/30		80/20		90/10		95/5		
Grade	A	BB	A	BB	A	BB	A	BB	A	BB	
Typical excess loss	0.1 dB	0.2 dB	0.1 dB	0.2 dB	0.1 dB	0.2 dB	0.1 dB	0.2 dB	0.1 dB	0.2 dB	
Signal insertion loss ¹	maximum	2.8 dB	3.0 dB	2.0 dB	2.2 dB	1.4 dB	1.5 dB	0.8 dB	0.9 dB	0.5 dB	0.6 dB
	minimum	1.9 dB	1.8 dB	1.3 dB	1.2 dB	0.75 dB	0.7 dB	0.35 dB	0.3 dB	0.15 dB	0.1 dB
Tap insertion loss	maximum	4.7 dB	4.9 dB	6.1 dB	6.4 dB	8.0 dB	8.4 dB	11.5 dB	12.2 dB	15.3 dB	15.9 dB
	minimum	3.5 dB	3.4 dB	4.6 dB	4.5 dB	6.3 dB	6.1 dB	8.9 dB	8.5 dB	11.6 dB	11.4 dB
Return loss/directivity	50 dB										
Polarization dependent loss	0.2 dB										
Fiber	Corning SMF-28										
Dimensions	L-type Ø 3.0 x 45 mm (single wavelength)										
	L-type Ø 3.0 x 50 mm (wavelength flattened and wideband)										
	P-type Ø 5.0 x 75 mm										
	R-type 80 x 10 x 8 mm										
Pigtail length	>1000 mm										

1. In 2x2 port couplers with coupling ratio of 20% or lower, insertion loss is not specified for launch through 2nd input.

Ordering Information

Indicate your requirements by selecting one option from each configuration table. Please print the corresponding codes in the available boxes to form your part number. For more information on this or other products and their availability, please contact your JDS Uniphase account manager, or call 1-877-550-JDSU toll free in North America, or visit www.jdsuniphase.com.

Sample: R2SWF15B20

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Code	Housing		Code	Format		Code	Operating Wavelength(s)		Code	Coupling Ratio	
L	Miniature		S	Single wavelength		13	1300 nm		40	40%	
P	Semi-ruggedized		SWF	Wavelength flattened		15	1550 nm		30	30%	
R	Fully ruggedized		SWB	Wideband		1585	1585 nm		20	20%	
						13/15	1300/1550 nm		10	10%	
									05	5%	
Code	Port Configuration		Code	Grade							
2	1x2		A	A							
22	2x2		B	BB							

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 10113933 Rev.001 05/01