SM Fused Coupler Series

Wide Band Coupler (WBC)

Key Features

- Low excess loss
- Low PDL
- High stability and reliability

DK Photonics uses unique bandwidth expanding techniques (asymmetric techniques) to build the wide band coupler (WBC). The WBC has an operating bandwidth of ± 40nm or EDFA C band or L band, and it features low excess loss and low wavelength depend loss (WDL).

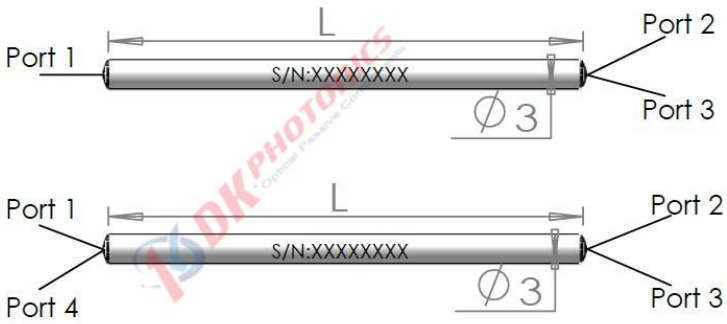
Applications

- CATV
- LAN
- Optical fiber sensors
- Testing instruments

Package Dimension

Configuration	1×2 or 2×2		
Fiber lead length	1 meter, others on request		
Fiber type	250μm bare fiber	900μm loose tube	900μm/2mm/3mm loose tube
Dimensions (Φ×L) (mm)	Φ3.0×54	Φ3.0×54	90×20×10mm

*Other package dimensions can be made on customer request.



*Due to ongoing design improvements, the package size is subject to change. Please contact DK Photonics for confirmation if you have special requirements.

For more Info

Please contact us at:

Tel: +86-755-23736280

Fax: +86-755-26746512

E-mail: sales@dkphotonics.com

https://www.dkphotonics.com

Add.:

4F, Bldg. 18, Qinghu Industrial Park,

Dahe Road, Longhua Dis.,

Shenzhen, China 518109

Wide Band Coupler (WBC)

Performance Specifications

Parameter		Unit	Values			
Grade		-	P	A	P	A
Operating wavelength		nm	1310 ,1550 or C+L Band		C Band or L Band	
Operating bandwidth		nm	± 40		1528 ~1565 or 1570 ~1605	
Typical excess loss		dB	0.07	0.10	0.07	0.10
Insertion loss	50/50	dB	≤3.4	≤3.6	≤3.35	≤3.5
	45/55	dB	≤4.1/3.1	≤4.3/3.3	≤4.0/3.0	≤4.2/3.2
	40/60	dB	≤4.4/2.6	≤4.7/2.8	≤4.4/2.55	≤4.6/2.7
	35/65	dB	≤5.2/2.3	≤5.5/2.5	≤5.1/2.2	≤5.3/2.4
	33/67	dB	≤5.4/2.2	≤5.7/2.3	≤5.3/2.1	≤5.5/2.25
	30/70	dB	≤5.7/1.9	≤6.0/2.0	≤5.7/1.85	≤5.9/1.95
	25/75	dB	≤6.6/1.7	≤7.0/1.8	≤6.5/1.65	≤6.8/1.75
	20/80	dB	≤7.6/1.25	≤8.0/1.3	≤7.55/1.25	≤7.8/1.3
	15/85	dB	≤9.2/1.0	≤9.6/1.2	≤9.0/1.0	≤9.3/1.1
	10/90	dB	9.55~10.65/≤0.65	9.3~10.9/≤0.8	9.55~11.60/≤0.65	9.35~10.85/≤0.8
	5/95	dB	12.40~13.80/≤0.4	12.10~14.10/≤0.5	12.45~13.75/≤0.4	12.15~14.05/≤0.45
	3/97	dB	14.50~16.15/≤0.3	14.15~16.50/≤0.4	14.55~16.10/≤0.3	14.20~16.45/≤0.35
	2/98	dB	16.10~18.05/≤0.25	15.70~18.45/≤0.35	16.20~17.95/≤0.25	15.80~18.35/≤0.3
	1/99	dB	19.05~21.15/≤0.2	18.55~21.65/≤0.3	19.10~21.10/≤0.2	18.65~21.55/≤0.3
PDL		dB	≤0.10	≤0.15	≤0.10	≤0.15
Directivity		dB	≥55			
Maximum Power Handling		W	2			
Operating temperature		℃	-40 ~ +85			

1. Above specification are for device without connector, and may change without notice. All parameters are tested at room temperature.
2. Other specifications can be made on customer request.
3. For devices with connectors, IL will be 0.3dB higher, RL will be 5dB lower. The pass optical power is 2 W only for connector added.
4. If there is pulse application, please be sure to inform us of pulse energy and peak power.
5. Insertion Loss around 1383nm (water peak) is counted in the specifications above.

Order information

P/N: FBTC-①-②-③-④-⑤-⑥-⑦-⑧-⑨-⑩

When you inquire, please provide the correct P/N number according to our ordering information, and attach the appropriate description would be better. If need any connector, we do not recommend choosing a 250μm bare fiber pigtail.

① Type	② Grade	③ Port	④ Wavelength	⑤ Coupling Ratio(%)	⑥ Fiber Type	⑦ Pigtails Diameter	⑧ Fiber Length	⑨ Connector	⑩ Package
WBC	P: P Grade A:A Grade	102:1x2 202:2x2	13:1310nm 15:1550nm C: 1528 ~1565nm L: 1570 ~1605nm	50:50/50 40:40/60 30:30/70 20:20/80 10:10/90 05:5/95 02:2/98 01:1/99 XX: Others	S28:SMF-28 X:Others	25:250μm 90:900μm 20:2.0mm 30:3.0mm XX: Others	05:0.5m 10:1.0m 15:1.5m XX: Others	00:None FP: FC/PC FA: FC/APC SP: SC/PC SA: SC/APC ST: ST/PC LP: LC/PC LA: LC/APC XX: Others	3.0x40 3.0x54 90x10x10

Part Number Example: FBTC-WBC-P-202-15-02-S28-25-10-00-3.0x54

Description: 2x2 wide band coupler, P grade, 1550nm, 2/98 coupling ratio, SMF-28e fiber, with bare fiber, 1.0m length fiber pigtails, without connector. 3.0X54mm package.

Ordering Information for Custom Parts

If you need to customize other specifications, please provide detailed description for your requirement.