

Mini Size Dual Window Coupler (MSDWC)

Key Features

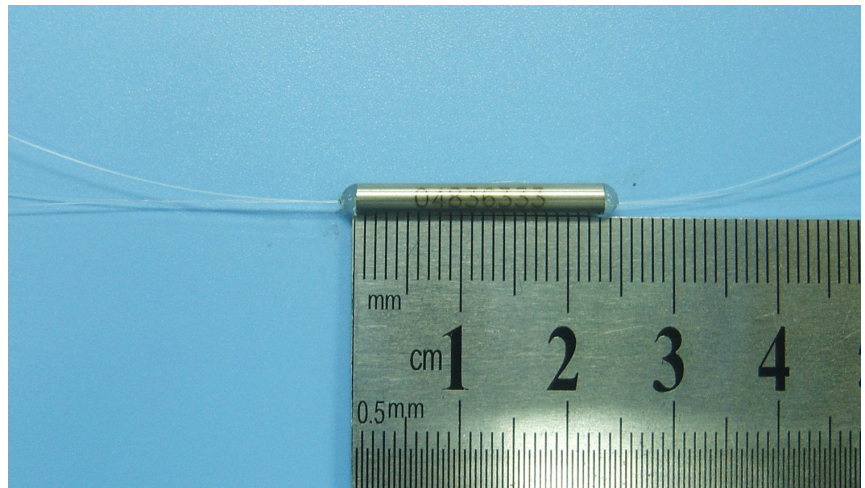
- Low insertion loss
- Mini size
- Low excess loss
- Low PDL
- Dual operating window
- High stability and reliability

Dual window coupler (DWC) is built by asymmetric coupling technique. The operating bandwidth of this coupler is expanding to $\pm 40\text{nm}$. The DWC coupler has the same coupling ratio on both 1310nm and 1550nm communication windows.

The mini size DWC is designed for the compact optical modules and communication systems.

Applications

- Mini size EDFA
- Mini size transmitter/receiver module
- Optical communication systems
- Testing instruments



For more Info

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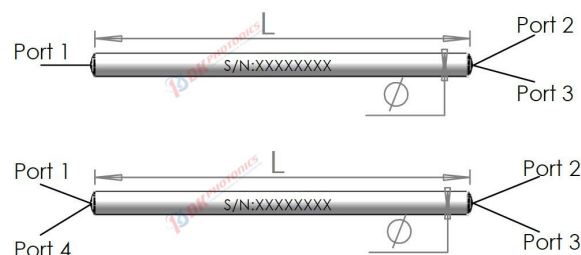
Add.:

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Dahe Road, Longhua Dis.,

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Package Dimension



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

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Performance Specifications

Parameter	Unit	Values			
Operating wavelength	nm	1310 and 1550			
Operating bandwidth	nm	±40			
Configuration	-	1×2 or 2×2			
Package dimensions (Φ×L)	mm	Φ3.0/Φ2.4×30		Φ2.4×25	
Grade	-	P	A	P	A
Typical excess loss	dB	0.1	0.15	0.15	0.25
50/50	dB	≤3.60	≤3.80	≤3.70	≤3.90
40/60	dB	≤4.70/2.70	≤4.90/2.90	≤4.70/2.80	≤5.00/3.00
30/70	dB	≤6.00/1.90	≤6.30/2.10	≤6.10/2.10	≤6.40/2.20
20/80	dB	≤7.90/1.30	≤8.40/1.40	≤8.00/1.40	≤8.50/1.50
Insertion loss	dB	9.20~11.30/≤0.75	8.75~12.00/≤0.80	9.25~11.50/≤0.85	8.80~12.00/≤0.85
5/95	dB	12.05~14.35/≤0.40	11.55~14.85/≤0.50	12.10~14.40/≤0.50	11.60~14.90/≤0.55
3/97	dB	14.10~16.70/≤0.35	13.55~17.25/≤0.45	14.15~16.75/≤0.40	13.60~17.30/≤0.45
2/98	dB	15.75~18.65/≤0.30	15.10~19.25/≤0.40	15.80~18.70/≤0.35	15.15~19.30/≤0.40
1/99	dB	18.60~21.80/≤0.25	17.90~22.50/≤0.35	18.65~21.85/≤0.30	17.95~22.55/≤0.35
PDL	dB	≤0.15	≤0.2	≤0.15	≤0.2
Directivity	dB	≥55			
Maximum Power Handling	W	1			
Operating temperature	°C	-40 ~ +85			

1. Above specification are for device without connector, and may change without notice.

2. Other specifications can be made on customer request.

3. IL is 0.3 dB higher and RL is 5 dB lower for each connector added.

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. For mini size coupler, typical applications are bare fibers without connector.

①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
Type	Grade	Port	Wavelength	Coupling Ratio (%)	Fiber Type	Pigtails Diameter	Fiber Length	Connector	Package
MSDWC	P: P Grade A:A Grade	102:1x2 202:2x2	13:1310nm 15:1550nm	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	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	2.4x25 2.4x30 3.0x30

Part Number Example: FBTC-MSDWC-P-202-13-01-S28-25-10-00-2.4x30

Description: 2x2 mini size dual window coupler, P grade, 1310±40nm, 1/99 coupling ratio, SMF-28e fiber, with bare fiber, 1.0m length fiber pigtails, without connector. 2.4x30mm package.

Ordering Information for Custom Parts

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