

Dual Window Coupler (DWC)

Description

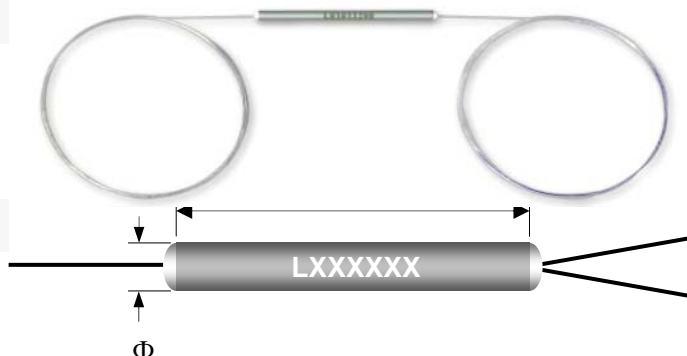
Dual window coupler (DWC) is built by asymmetric coupling technique. The operating bandwidth of this normal coupler is expanding to $\pm 40\text{nm}$, and the ultra broadband coupler is expanding to $\pm 80\text{nm}$. The DWC coupler has the same coupling ratio on both 1310nm and 1550nm communication windows, and with low excess loss and low PDL. DWC couplers are widely used for communication systems, CATV, and FTTH.

Key Features

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

Applications

- Optical communication systems
- CATV
- FTTH



Specifications

Parameter	Type	Normal		Ultra Broadband	
		P	A	P	A
Grade		P	A	P	A
Operating wavelength (nm)		1310 and 1550			
Operating bandwidth (nm)		± 40		± 80	
Typical excess loss (dB)		0.07	0.1	0.07	0.1
Insertion loss (dB)	50/50	≤ 3.6	≤ 3.8	≤ 3.8	≤ 4.0
	45/55	$\leq 4.2/3.2$	$\leq 4.4/3.4$	$\leq 4.5/3.3$	$\leq 4.7/3.5$
	40/60	$\leq 4.7/2.7$	$\leq 4.9/2.9$	$\leq 5.0/2.8$	$\leq 5.2/3.0$
	35/65	$\leq 5.4/2.4$	$\leq 5.7/2.6$	$\leq 5.8/2.5$	$\leq 6.1/2.7$
	33/67	$\leq 5.7/2.2$	$\leq 6.0/2.4$	$\leq 6.1/2.3$	$\leq 6.4/2.5$
	30/70	$\leq 6.0/1.9$	$\leq 6.3/2.1$	$\leq 6.4/2.0$	$\leq 6.7/2.2$
	25/75	$\leq 7.0/1.7$	$\leq 7.3/1.9$	$\leq 7.3/1.7$	$\leq 7.7/1.9$
	20/80	$\leq 7.9/1.3$	$\leq 8.4/1.4$	$\leq 8.3/1.3$	$\leq 8.7/1.5$
	15/85	$\leq 9.5/1.0$	$\leq 10.0/1.2$	$\leq 9.6/1.0$	$\leq 10.1/1.2$
	10/90	9.2~11.2/ ≤ 0.75	8.80~11.40 / ≤ 0.8	9.15~11.05 / ≤ 0.75	8.75~11.45/ ≤ 0.8
	5/95	12.05~14.15/ ≤ 0.4	11.60~14.60 / ≤ 0.5	12.00~14.25/ ≤ 0.45	11.50~14.70/ ≤ 0.5
	3/97	14.1~16.5/ ≤ 0.35	13.60~17.05/ ≤ 0.45	14.00~16.60 / ≤ 0.35	13.45~17.15/ ≤ 0.45
2/98	15.75~18.45/ ≤ 0.3	15.15~19.00/ ≤ 0.4	15.60~18.60/ ≤ 0.3	14.95~19.20/ ≤ 0.4	
1/99	18.6~21.6 / ≤ 0.25	17.95~22.25/ ≤ 0.35	18.35~21.85/ ≤ 0.25	17.60~22.55/ ≤ 0.35	
PDL (dB)		≤ 0.15	≤ 0.2	≤ 0.15	≤ 0.2
Directivity (dB)		≥ 55			
Operating temperature ($^{\circ}\text{C}$)		-40 ~ +85			

*The above specification is without connector

**Insertion Loss around 1380nm (water peak) is not counted in the specifications above.

Package Information

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)	Φ3.0mm×54mm	Φ3.0mm×54mm	90mm×14mm×8.5mm
	Φ2.4mm×42mm		

*Other package dimensions can be made on customer request.

Ordering Information

DWC-X-XXX-XXX-XX/XX-X-X-XX/XXX-XX*XX

