# DUAL WINDOW SINGLE MODE WIDEBAND FIBER COUPLER (1310 NM AND 1510 NM BAND)

#### **DWFC** Series

#### **Product Description**

The Oplink fused dual window wideband fiber 1x2 (2x2) couplers provide accurate optical signal coupling and splitting over wide bandwidth with high performance and high reliability. These couplers have excellent uniformity, low excess loss and very low polarization sensitivity and are available with various tap ratios, fiber types, and connector options. All devices are shown to be able to handle high optical power up to 4W and are tested according to industry standard procedures. Reliability is guaranteed through stringent tests to fully meet Telcordia GR-1221 requirements.





#### **Performance Specification**

DWFC Series	Specifications				
Wavelength Range	$1310 \pm 40$ and $1550 \pm 40$				
Fiber Type	Corning SMF-28				
Insertion Loss [1]	See Insertion Loss Table				
Return Loss [1] (Min)	55				
Directivity (Min)	55				
TDL <sup>[2]</sup> (Max)	Signal Path: < 0.10	Signal Path: < 0.10 dB, Tap Path: < 0.15 dB			
Maximum Power Handling	4				
Operating Temperature Range [3]	- 40 to + 75				
Storage Temperature Range	- 40 to + 85				
Package Dimensions [4]	P1: 250 μm bare fiber P2: 900 μm loose tube P3: 3mm cable	(Ø) 3.0 x (L) 47.0 (Ø) 3.0 x (L) 60.0 (L) 96.0 x (W) 12.0 x (H) 6.4	mm		
Qualifications	Telcordia GR-1221				

Note:

[1] Values are referenced without connector loss.

[2] Temperature Sensitivity Coefficient ~0.002dB/°C at the range of –5 to 75°C.

[3] Operating temperature range changes to -5 to 75°C in P2, P3 package and all package with connectors

[4] The mechanical tolerance should be +/- 0.2 mm on all package dimensions unless otherwise custom specified.



#### Features

- Wavelength Independent
- Low Insertion Loss and PDL
- High Power Handling
- Guranteed Reliability

#### **Applications**

- Signal monitoring in EDFA
- Network Monitoring
- ♦ CATV
- Local Area Networks
- Testing Instruments
- Laboratory R&D



## DWFC SERIES

<b>Insertion Loss</b>	(IL) :
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	P Grade				A Grade					
Coupling Ratio	IL	IL <sup>1</sup> (dB)		(dB)	Uniformity	IL <sup>1</sup> (dB)		PDL <sup>2</sup> (dB)		Uniformity
	Signal	Тар	Signal	Тар		Signal	Тар	Signal	Тар	
99/1	≤0.25	18.0-22.5	≤0.05	≤0.20		≤0.25	16.0-23.5	≤0.05	≤0.20	
98/2	≤0.30	16.0-19.0	≤0.05	≤0.20		≤0.30	14.5-19.0	≤0.05	≤0.20	
97/3	≤0.35	13.5-17.0	≤0.05	≤0.20		≤0.35	13.0-18.2	≤0.05	≤0.20	
95/5	≤0.45	11.8-15.0	≤0.10	≤0.20		≤0.45	12.0-16.5	≤0.10	≤0.20	
90/10	≤0.65	9.60-11.30	≤0.10	≤0.15		≤0.65	9.20-12.2	≤0.10	≤0.15	
85/15	≤0.98	7.80-9.40	≤0.10	≤0.15		≤0.98	7.80-9.80	≤0.10	≤0.15	
80/20	≤1.25	6.50-7.85	≤0.15	≤0.15		≤1.25	6.40-8.00	≤0.15	≤0.15	
75/25	≤1.60	5.50-6.80	≤0.15	≤0.15		≤1.80	5.30-7.00	≤0.15	≤0.15	
70/30	≤2.00	4.70-6.00	≤0.15	≤0.15		≤1.95	4.50-6.50	≤0.15	≤0.15	
65/35	≤2.10	4.30-5.20	≤0.15	≤0.15		≤2.30	4.30-5.50	≤0.15	≤0.15	
60/40	≤2.70	3.50-4.70	≤0.15	≤0.15		≤2.80	3.20-5.00	≤0.15	≤0.15	
55/45	≤3.00	3.00-4.20	≤0.15	≤0.15		≤3.20	2.80-4.50	≤0.15	≤0.15	
50/50	2.7	0-3.60	≤0	.15	≤0.70	2.40	)-3.90	≤0	.20	≤1.2

1. Insertion loss over operating wavelength range at ~23°C (excluding PDL and TDL).

2. Insertion loss change over the all input polarization states.

### **Ordering Information**

Oplink can provide a remarkable range of customized optical solutions. For detail, please contact Oplink's OEM design team or account manager for your requirements and ordering information (510) 933-7200.



\* The tolerance of fiber length is +/-0.1m. 1 meter is standard. The lead time for special fiber length will be longer.

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