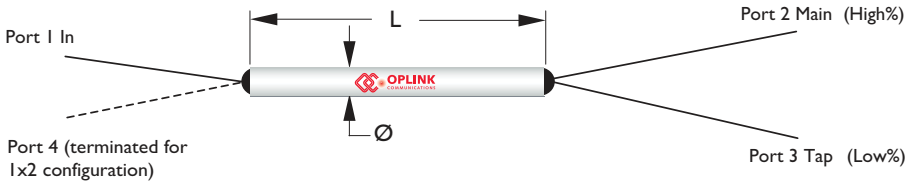
Dual Window Single Mode Wideband Fiber Coupler (1310 nm and 1510 nm band)

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	Unit
Wavelength Range	1310 ±40 and 1550±40	nm
Fiber Type	Corning SMF-28	
Insertion Loss [1]	See Insertion Loss Table	dB
Return Loss [1] (Min)	55	dB
Directivity (Min)	55	dB
TDL [2] (Max)	Signal Path: < 0.10 dB, Tap Path: < 0.15 dB	dB
Maximum Power Handling	4	W
Operating Temperature Range [3]	- 40 to + 75	°C
Storage Temperature Range	- 40 to + 85	°C
Package Dimensions [4]	P1: 250 µm bare fiber (Ø) 3.0 x (L) 47.0 P2: 900 µm loose tube (Ø) 3.0 x (L) 60.0 P3: 3mm cable (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

OPLINK
your DESIGN & OMS partner

Insertion Loss (IL) :

Coupling Ratio	P Grade					A Grade				
	IL[1] (dB)		PDL[2] (dB)		Uniformity	IL[1] (dB)		PDL[2] (dB)		Uniformity
	Signal	Tap	Signal	Tap		Signal	Tap	Signal	Tap	
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	2.70-3.60		≤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.

DWFC □ □ □ □ □ □ □ □ □ □ □ □

Wavelength
1310/1550 nm

Type
1x2 = 1
2x2 = 2

Tap Ratio
50/50 = 50
45/55 = 45
40/60 = 40
35/65 = 35
30/70 = 30
25/75 = 25
20/80 = 20
15/85 = 15
10/90 = 10
05/95 = 05
03/97 = 03
02/98 = 02
01/99 = 01

Grade
Premium Grade = P
A Grade = A

Package & Fiber Type
P1 + 250 µm bare fiber = 11
P2 + 900 µm loose tube = 22
P3 + 3 mm cable = 33

Fiber Length*
0.5 Meter = H
1.0 Meter = 1
1.5 Meters = 5
2.0 Meters = 2

Connector Type
None = 1
FC/PC = 2
FC/SPC = 3
FC/APC = 4
SC/PC = 5
SC/SPC = 6
SC/APC = 7
ST = 8
LC/UPC = 9
MU = A
LC/APC = B

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

46335 Landing Pkwy Fremont, CA 94538 Tel: (510) 933-7200 Fax: (510) 933-7300 Email: Sales@Oplink.com • www.oplink.com

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Molex:

DWFC0150P001111