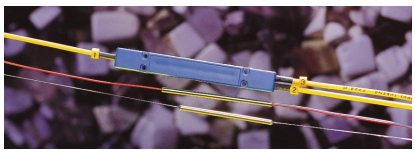
Broadband Dual Window Coupler
> 1x2, 2x2, single mode

Description

Dual window broadband couplers split and combine light simultaneously in both 1310nm and 1550nm wavelength regions and offer excellent performance over 80nm bandwidth. Cubo's couplers are manufactured with a highly automated process to achieve good quality and available with coupling ratio ranging from 50:50 to 1:99.



Features

- Low insertion loss
- Low excess loss
- Excellent uniformity
- Low PDL
- High directivity
- Environmentally stable and reliable
- Wide wavelength rang
- Telcordia (Bellcore) compliant

Applications

- CATV
- Telecommunication
- FTTH
- Local area networks
- Subscriber loop
- Test equipment

Specifications

Parameters	Broadband Dual Window Coupler - 1x2, 2x2 (50:50 Coupling Ratio)
Operating Wavelength	1310 / 1550nm
Maximum Insertion Loss	3.60 dB
Typical Excess Loss	0.10 dB
Maximum Uniformity	0.70 dB
Maximum Polarization Dependent Loss	0.15 dB
Minimum Directivity	50 dB
Maximum Thermal Stability	0.25 dB
Operating Temperature	-40°C to 85°C
Storage Temperature	-50°C to 85°C
Package Dimensions *	Package: 3S, 6L, 7H (see order code)

* Dimension refer to ordering information

Additional components according to your specifications on request! Please contact Cube Optics for further details.

COUPLING RATIO / INSERTION LOSSCONVERSION CHART

Coupling Ratio	Premium
50/50	3.60
45/55	3.90 / 3.30
40/60	4.70 / 2.70
35/65	5.00 / 2.20
30/70	6.00 / 1.90
25/75	6.50 / 1.60
20/80	7.90 / 1.20
15/85	8.80 / 1.00
10/90	11.30 / 0.60
5/95	15.20 / 0.40
1/99	23.50 / 0.30

COUPLING RATIO / PDL CONVERSION CHART

Coupling Ratio	Premium
40~50%	0.10
30~39%	0.15
10~29%	0.25
1~9%	0.30

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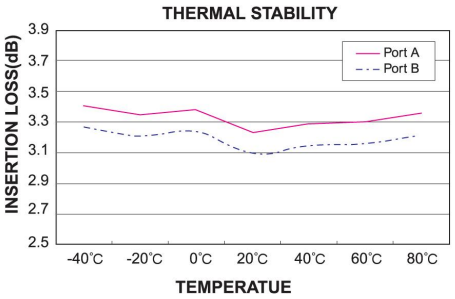
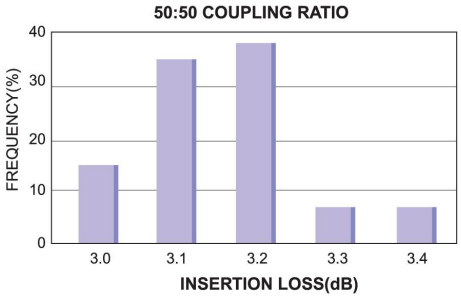
Qualification and Reliability Test

Type of Test	Conditions	Duration
Damp Heat	75°C an 90% RH	2.500 hours
High Temperature Storage (Dry Heat)	85°C an 30% RH	2.500 hours
Low Temperature Storage	-40°C	2.500 hours
Water Immersion	43 ± 2°C, PH 5.5 ± 0.5	340 hours
Vibration	10-2,000 Hz random, 20G	3 axes, 12 hrs per axis
Side Pull	227g (0.5 lb) load 90° active	-
Impact	0.3 meter high	8 drops
Cable Retention	454 g load (1 lb)	1 min

Typical Performance





Ordering Information

Indicate your requirements by selecting one option from each configuration table. Please write the corresponding codes in the available boxes to form your part number. For more information on this or other products and their availability, please contact Cube Optics AG at +49-6131-69851-0 or via e.mail at sales@cubeoptics.com, or visit our website at www.cubeoptics.com.

Ordering example: BWND-3-1-10-3S-1-2-55

BWND - [ ] - [ ] - [ ] [ ] - [ ] [ ] - [ ] - [ ] - [ ] [ ]

Wavelength	code
1310/1550 nm	3

Port	code
1x2	1
2x2	2

Coupling Ratio	code
01/99	01
05/95	05
10/90	10
20/80	20
30/70	30
40/60	40
50/50	50
ab/100-ab	ab

Package Dimension	code
250 µm bare fiber 3.0x55mm*	3S
900 µm loose tube 3.0x65mm	6L
3.0 mm cable 95x12x10mm	7H

* only available without connectors

Fiber Type	code
Corning SMF-28™	1

Fiber Length	code
1.0 m	1
2.0 m	2
3.0	3
1.5 m	4
2.5 m	5

Connector in/out*	code
none	0
SC/PC	1
FC/PC	2
SC/APC**	3
FC/APC**	4
LC/PC	5
MU/PC	6
E2000	7
E2000/HRL**	8
ST/PC	9

* device regarded as demultiplexer
**8° angular polishing

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