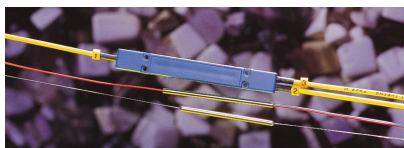


# Broadband Dual Window Coupler > 1x2, 2x2, single mode

## 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	-5°C to 85°C
Storage Temperature	-40°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 LOSS CONVERSION 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

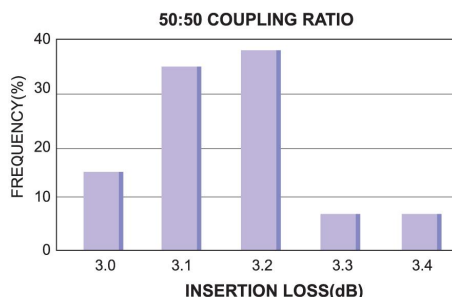
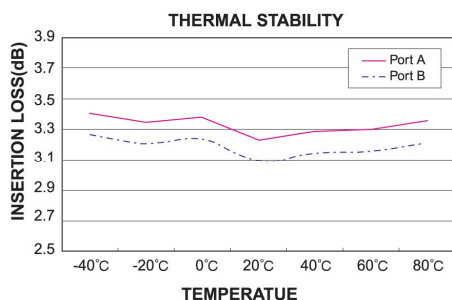
Coupling Ratio	Premium
40~50%	0.10
30~39%	0.15
10~29%	0.25
1~9%	0.30

All information contained herein is believed to be accurate and is subject to change without notice. No responsibility is assumed for its use. Cube Optics AG, its subsidiaries and affiliates, or manufacturer, reserve the right to make changes without notice, to product design, product components and product manufacturing methods. Some specific combinations of options may not be available. Please contact Cube Optics AG for more information.

## 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		Coupling Ratio		code		Package Dimension		code		Fiber Length		code		Connector in/out*		code		
1310/1550 nm		3		01/99		01		250 µm bare fiber				1.0 m		1		none		0		
				05/95		05		3.0x55mm*		3S		2.0 m		2		SC/PC		1		
				10/90		10		900 µm loose tube				3.0		3		FC/PC		2		
				20/80		20		3.0x65mm		6L		1.5 m		4		SC/APC**		3		
				30/70		30		2.0 mm cable				2.5 m		5		FC/APC**		4		
				40/60		40		95x12x10mm		7H						LC/PC		5		
				50/50		50		* only available without connectors								MU/PC		6		
				ab/100-ab		ab										E2000		7		
																E2000/HRLL**		8		
																ST/PC		9		
												</								