



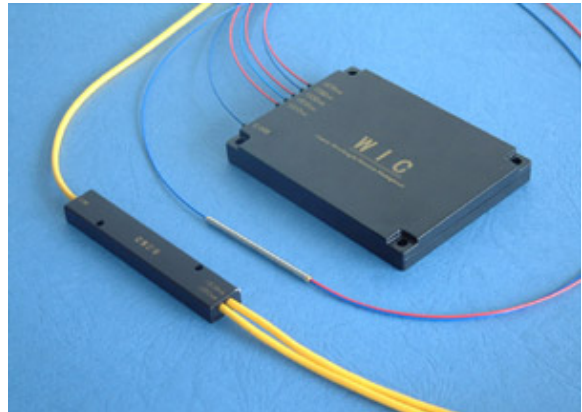
WIDE-BAND COUPLERS

Description

The wide-band single mode couplers are manufactured with Fused Biconic Taper (FBT) Technique. They have wide bandwidth, minimal excess loss, long-term stability and high directivity. They are optimized at 1310nm, 1550nm, or custom wavelengths, and is available in a variety of coupling ratios.

1x2 couplers are used to split light with minimal loss from one into two fibers or to merge light from two fibers into one across a broad wavelength region.

1xN tree couplers and NxN star couplers are made with fuse cascade-connecting (N-1) pieces of 1x2 and 2x2 couplers respectively.



Features

- Wide bandwidth
- Low loss
- Low polarization dependence
- Environmentally stable
- Excellent uniformity

Applications

- Local Area Networks
- CATV distribution
- Fiber optic sensors
- DWDM systems
- Trunk/loop branching

Specifications

Characteristics		Unit	Value/Performance			
1X2, 2X2						
Center Wavelength		nm	1310 or 1550, others on request			
Bandwidth		nm	±40			
Excess Loss		dB	≤0.08 (0.05 typ.)			
Coupling Ratio		-	50/50	40/60	30/70	20/80
Typ. Insertion Loss		dB	3.05	4.1/2.3	5.3/1.6	7.1/1.0
Max. Insertion Loss		dB	3.4	4.4/2.5	5.6/1.8	7.4/1.2
Polarization Dependent Loss		dB	≤0.1	≤0.1	≤0.15/0.1	≤0.15/0.1
Thermal Stability		dB/°C	≤0.002 over -40 ~ +80°C			
Directivity	1x2	dB	≥50, ≥60 on request			
	2x2	dB	≥65			
Lead Length		m	1, others on request			
Lead Type		-	250um bare fiber	900um loose tube	2 or 3mm loose tube	
Package Type		-	A1	A3 or B	B	
Operating Temperature		°C	-40 ~ +80	-20 ~ +70	-20 ~ +70	

Specifications

Characteristics	Unit	Value/Performance			
1xN, NxN					
Configuration	-	N x 4 N=1,2, 4	N x 8 N=1,2, 8	N x 16 N=1,2, 16	N x 32 N=1,2, 32
Center Wavelength	nm	1310 or 1550, others on request			
Bandwidth	nm	±40			
Max. Excess Loss	dB	0.2	0.3	0.4	0.5
Typ. Insertion Loss	dB	6.2	9.3	12.4	15.5
Max. Insertion Loss	dB	6.8	10.2	13.6	17.0
Uniformity	dB	≤1.2	≤1.8	≤2.4	≤3.0
Polarization Dependent Loss	dB	≤0.2	≤0.3	≤0.4	≤0.5
Thermal Stability	dB	≤0.2	≤0.3	≤0.4	≤0.5
Directivity	dB	≥60			
Operating Temperature	°C	-20 ~ +70			
Lead Length	m	1, others on request			
Lead Type	-	900um, 2mm or 3mm loose tube			
Package Type	-	C	D	E	E

Dimensional Drawing

Please see coupler package information.

Ordering Information

Part Number: **WBC-12 1 -50/50SM 1 A3- 1 FA**

1 2 3 4 5 6 7

1 Configuration	12=1x2, 22=2x2, 18=1x8, 1616=16x16, 132=1x32, etc.
2 Wavelength	1=1310nm, 2=1550nm
3 Coupling Ratio	50/50, 40/60, 20/80, 25x4(for 25/25/25/25), etc.
4 Lead Type	1=250um, 2=900um, 3=2.0mm, 4=3.0mm
5 Package Type	A1, A3, B, C, D or E
6 Lead Length	0.5=0.5m, 1=1m, etc.
7 Connectors Terminated	Blank=no connector, FU=FC/UPC, FA=FC/APC, SU=SC/UPC, SA=SC/APC

Products manufactured in
ISO 9001 certified facilities



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