

Fused Biconic Coupler/Tap (FBC) - FBFD Series



- Key Features**
- Low excess loss and PDL
 - High reliability
 - High directivity
 - Wide operating temperature up to 280°C
 - Broad bandwidth

Applications

- Network monitoring
- EDFA
- Optical testing system
- Optical fiber sensors
- High temperature fiberoptic systems

Compliance

- Telcordia GR-1209-CORE
- Telcordia GR-1221-CORE

Agilecom's FBFD utilizes our unique material and manufacturing process which allow accurate control of fiber position, fusion and packaging processes to provide low excess loss, low wavelength dependence, low PDL and insensitive to working temperature up to 280°C.

FBFD's are available in a wide variety of configurations, tape ratios, wavelength ranges, housing and connector options, and can therefore be readily specified in a wide variety of applications, enabling rapid design cycles and new project builds.

These products meet or exceed Telcordia GR-1209-CORE and GR-1221-CORE reliability qualification requirement.

Specifications

Parameter		Unit	Single-Window				Dual-/Triple-Window			
Grade			P	A	P	A	P	A	P	A
Configuration			1×1(Attenuator), 1×2, 2×2							
Fiber Type			SMF-28, Φ80μm fibers, Allwave, MM fibers, PM fibers, others							
Wavelength			1060, 1310, 1480, 1550, 1620 nm							
Bandwidth	B	nm	±10		±40		±40		1270-1610	
Insertion Loss	Max.	dB	3.4	3.6	3.4	3.7	3.6	3.9	3.7	4
Excess Loss	Typ.	dB	0.06	0.1	0.1	0.15	0.06	0.1	0.1	0.15
Uniformity	Max.	dB	0.5	0.8	0.6	0.9	0.8	1.1	1	1.4
PDL	Max.	dB	0.05	0.1	0.1	0.15	0.15	0.2	0.15	0.2
Return Loss	Min.	dB	50 (Test at central wavelength only)							
Operating Power	Max.	W	5							
Operating Temperature		°C	-40 ~ +85							
Storage Temperature		°C	-60 ~ +85							
Package Type	B1	mm	Φ3×40 for 250μm bare fiber							
	L1		Φ3×60 for 900μm loose tube							
	B2		Miniature: Φ3×25 for 250μm bare fiber							
	M1		10×20×90 for 900μm loose tube or 3mm cable							
Special feature	N		Normal							
	H	°C	High temperature of over 280°C							
	L	%	Very low branching ratio 0.01%, 0.1%,							
	U	dB	Ultra-low PDL of less than 0.02dB							

Splitting Ratio & Insertion Loss Conversion Table

Window		Maximum Insertion Loss (dB)															
		Single-								Dual- / Triple-							
Band		Narrowband(±10)				Broadband(±40)				Broadband(±40)				Ultra-Broadband			
Grade		P		A		P		A		P		A		P		A	
Output port		1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
Splitting Ratio	50 : 50	3.4	3.4	3.6	3.6	3.4	3.4	3.6	3.6	3.6	3.6	3.9	3.9	3.7	3.7	4.0	4.0
	60 : 40	2.5	4.4	2.8	4.8	2.5	4.4	2.8	4.8	2.7	4.7	2.9	5.0	2.7	4.8	2.9	5.1
	70 : 30	1.8	5.6	2.0	6.1	1.8	5.6	2.0	6.1	1.9	6.0	2.1	6.4	2.0	6.2	2.2	6.6
	80 : 20	1.1	7.4	1.3	8.0	1.1	7.4	1.3	8.0	1.2	7.9	1.4	8.5	1.3	8.0	1.5	8.5
	90 : 10	0.6	10.8	0.8	12.0	0.6	10.8	0.8	12.0	0.6	11.3	0.8	12.7	0.6	11.5	0.8	12.9
	95 : 05	0.4	14.6	0.5	18.4	0.4	14.6	0.5	18.4	0.4	15.2	0.5	18.9	0.4	15.6	0.5	19.2
	96 : 04	0.3	16.0	0.4	19.0	0.3	16.0	0.4	19.0								
	97 : 03	0.3	17.5	0.4	19.5	0.3	17.5	0.4	19.5								
	98 : 02	0.2	19.0	0.3	20.0	0.2	19.0	0.3	20.0	0.3	19.8	0.4	21.0	0.3	20.0	0.4	21.5
	99 : 01	0.2	21.5	0.3	22.0	0.2	21.5	0.3	22.0	0.3	23.5	0.4	24.0	0.3	24.0	0.4	24.6
99.5 : 0.5	0.2	23.0	0.3	24.0	0.2	23.0	0.3	24.0									

Ordering Information

For more information on these or other products and their availability, please contact our sales department at 408-943-0815 in North America and 0760-3338606 in China or via e-mail at sales@agilecom.net.

Sample: FBC— NSB651P1S20

FBC —

Code	Feature	Code	Wavelength	Code	Configuration	Code	Fiber Type	Code	Connector
N	Normal	1	1060nm	0	1×1 (Attenuator)	S	SMF-28	0	None
H	High temperature	3	1310nm	1	1×2	6	H11060	1	SC/UPC
L	Low branch ratio	4	1480nm	2	2×2	9	980	2	SC/APC
U	Ultra-low PDL	5	1550nm			8	Φ80μm	3	FC/UPC
		6	1620nm			P	Polarization Maintaining	4	FC/APC
						M	Multi-Mode	5	LC/UPC
								6	ST/UPC
								M	MU
								X	Customize
Code	Window	Code	Splitting Ratio	Code	Grade	Code	Fiber Length		
S	Single-	A	0.5/99.5	A	Grade A	0	0.5m		
D	Dual-	B	1/99	P	Premium	1	1.0m		
T	Triple-	C	2/98			2	1.5m		
		D	3/97			3	2.0m		
		E	4/96			X	Customize		
		F	5/95						
		1	10/90						
		2	20/80						
		3	30/70						
		4	40/60						
		5	50/50						
		X	Customize						
Code	Band	Code	Package						
N	Narrowband	1	B1						
B	Broadband	2	L1						
		3	B2						
		4	M1						
		X	Customize						

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