

Steel Tube FBT Couplers Splitters, Single Mode

Data Center & Cloud Computing Infrastructure Solutions



Overview

Steel Tube FBT splitter is based on Fused Biconical Taper (FBT) technology to combine or distribute light from single inputs to single outputs bi-directionally. It's designed for power splitting and tapping in telecommunication equipment, CATV network, and test equipment.

FBT splitter can be customized in a variety of styles, sizes, port configurations, split values, and wavelength specifications, allowing a high degree of flexibility in tailoring the product to suit your precise requirements and application.

Features

- Low insertion loss
- Low PDL (Polarization Dependent Loss)
- Compact design
- Exceptional reliability and stability
- Wide operating temperature: from -40° C to 85° C
- Conformed to RoHS certificate

Application

- FTTX System
- LAN, WAN and Metro Network
- Analog/Digital Passive Optical Network

Technical Specification

Parameter		Description	
Configuration		1× 2/ 2× 2	
Type	Single window	Dual window	Three window
Operating Wavelength	1310nm or 1550nm	1310/1490nm or 1490/1550nm or 1310/1550nm	1310/1490/1550nm
Operating Bandwidth	± 40nm	± 40nm	± 20nm
Max Insertion Loss* (50/50)	3.4dB	3.6dB	
Max Insertion Loss (10/90)	11dB/0.65dB	9.2-11dB/0.75dB	
Max Insertion Loss (5/95)	14dB/0.4dB	12.05-14.14dB/0.4dB	
Max Insertion Loss (1/99)	21.5dB/0.2dB	18.6-21.6dB/0.25dB	
PDL	≤ 0.1dB	≤ 0.15dB	
Return Loss	≥ 50dB		
Directivity	≥ 55dB		
Operating Temperature	-40°C ~ +85°C		
Storage Temperature	-40°C ~ +85°C		
Fiber Length	0.5m/1m/1.5m		
Fiber Diameter	0.9mm		
Connector Type	LC/SC/FC-UPC/APC, None		
Housing	Steel tube		
Dimensions (WxD)	3x45mm	3x54mm	
Grade Type	P		
Quality Certification	RoSH		

Note: 1. Above specifications are for devices without connectors. If the device is with connectors, an additional 0.3dB to the insertion loss will be added, and the return loss will be reduced by 5dB.
2. Only the popular coupling ratios are listed. For more parameters, please contact your account manager.

Technical Specification

Parameter		Description		
Configuration		1× 3		3× 3
Type	Single window	Dual window	Single window	Dual window
Operating Wavelength	1310 or 1550nm	1310 and 1550nm	1310 or 1550nm	1310 and 1550nm
Operating Bandwidth	± 40nm	± 40nm	± 15nm	± 40nm
Insertion Loss (50/50)	≤ 5.4dB	≤ 5.8dB	≤ 5.6dB	≤ 5.8dB
PDL	≤ 0.15dB	≤ 0.25dB	≤ 0.25dB	≤ 0.25dB
Uniformity Loss	≤ 0.8dB	≤ 1.2dB	≤ 1dB	≤ 1.3dB
Return Loss	≥ 50dB			
Directivity	≥ 55dB			
Operating Temperature	-40℃ ~ +85℃			
Storage Temperature	-40℃ ~ +85℃			
Fiber Length	0.5m/1m/1.5m			
Fiber Diameter	0.9mm			
Connector Type	LC/SC/FC-UPC/APC, None			
Housing	Steel tube			
Dimensions (WxD)	3x45mm		3x54mm	
Grade Type	P			
Quality Certification	RoSH			

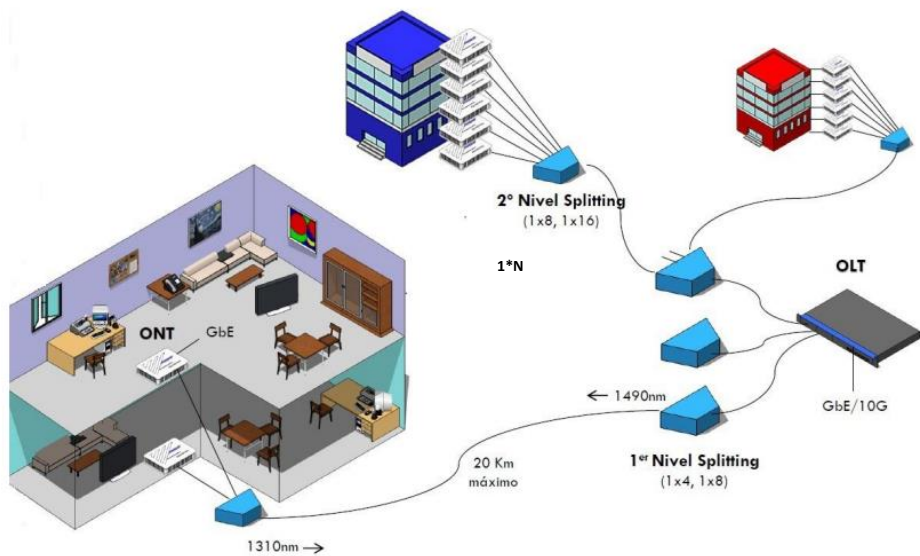
* Note: 1. Above specifications are for devices without connectors.
2. If the device is with connectors, an additional 0.3dB to the insertion loss will be added, and the return loss will be reduced by 5dB.

Technical Specification

Parameter		Description
Configuration		1×4
Type	Single window	Dual window
Operating Wavelength	1310 or 1550nm	1310 and 1550nm
Operating Bandwidth	± 40nm	± 40nm
Coupler Ratio	50/50	50/50
Insertion Loss *	≤ 6.8dB	≤ 7.2dB
PDL	≤ 0.2dB	≤ 0.3dB
Uniformity Loss	≤ 1dB	≤ 1.2dB
Return Loss		≥ 50dB
Directivity		≥ 55dB
Operating Temperature		-40°C ~ +85°C
Storage Temperature		-40°C ~ +85°C
Fiber Length		0.5m/1m/1.5m
Fiber Diameter		0.9mm
Connector Type		LC/SC/FC-UPC/APC, None
Housing		Steel tube
Dimensions (WxD)		3x54mm
Grade Type		P
Quality Certification		RoSH

* Note: 1. Above specifications are for devices without connectors.
2. If the device is with connectors, an additional 0.3dB to the insertion loss will be added, and the return loss will be reduced by 5dB.

Applications Configuration Diagram



FBT Splitters Series

Type	ID#	Description
Single Mode FBT Coupler Splitters		
Steel Tube	#21045	1x2 Single Mode Dual Window FBT 900µm Coupler Splitter, FC/APC
Steel Tube	#65799	MxN Single Mode 250µm Steel Tube FBT Couplers Splitters, Unconnectorized
Steel Tube	#65798	MxN Single Mode 900µm Steel Tube FBT Couplers Splitters, LC/SC/FC
ABS Module	#65800	MxN Single Mode ABS Module FBT Couplers Splitters, LC/SC/FC
MultiMode FBT Coupler Splitters		
Steel Tube	#65801	1x2 Multimode Steel Tube FBT Couplers Splitters, Unconnectorized/LC/SC/FC
ABS Module	#65803	1xN Multimode ABS FBT Couplers Splitters, LC/SC/FC