

# Single Mode Broadband Fiber Coupler

Single mode broadband fiber couplers are designed for splitting light with minimal loss from one into two fibers or to combine light from two fibers into one fiber. Accelink offers both single-window and dual-window broadband couplers.

The products are Telcordia GR-1209-CORE qualified, and RoHS compliant.



## Applications

Telecommunications  
CATV network  
Access network  
Optical amplifier

## Features

Wide bandwidth  
Low excess Loss

## Specifications

Insertion Loss Table

| Parameter             | Unit | Value      |         |                 |                | C or L    |        | 1310±40   |        | 1310±40&1550±40 |        |
|-----------------------|------|------------|---------|-----------------|----------------|-----------|--------|-----------|--------|-----------------|--------|
| Wavelength            | nm   | C or L     | 1310±40 | 1310±40&1550±40 | Splitter Ratio | Tap       | Signal | Tap       | Signal | Tap             | Signal |
| Splitter Ratio        |      | 1/99~50/50 |         |                 | 1/99           | 19.0~21.0 | ≤ 0.20 | 18.2~21.0 | ≤ 0.20 | 18.0~22.0       | ≤ 0.25 |
| Fiber Type            |      | SMF-28     |         |                 | 3/97           | 14.6~16.2 | ≤ 0.30 | 14.4~16.4 | ≤ 0.30 | 14.0~16.6       | ≤ 0.35 |
| Return Loss           | dB   | > 50       |         |                 | 5/95           | 12.4~13.8 | ≤ 0.35 | 12.4~14.0 | ≤ 0.35 | 11.8~14.5       | ≤ 0.45 |
| Directivity           | dB   | > 55       |         |                 | 10/90          | 9.60~10.8 | ≤ 0.60 | 9.40~11.0 | ≤ 0.60 | 9.60~11.3       | ≤ 0.60 |
| PDL                   | dB   | <0.1       |         | <0.15           | 20/80          | 6.60~7.60 | ≤ 1.15 | 6.30~7.80 | ≤ 1.15 | 6.50~7.80       | ≤ 1.20 |
| Operation Temperature | ℃    | -10 ~ +70  |         |                 | 30/70          | 5.00~5.50 | ≤ 1.75 | 4.60~5.75 | ≤ 1.75 | 4.70~6.50       | ≤ 1.90 |
| Storage Temperature   | ℃    | -40 ~ +85  |         |                 | 40/60          | 3.95~4.30 | ≤ 2.50 | 3.85~4.40 | ≤ 2.50 | 3.60~4.70       | ≤ 2.70 |
|                       |      |            |         |                 | 50/50          | 2.80~3.30 |        | 2.70~3.40 |        | 2.70~3.50       |        |

Notes :All insertion loss don't include connector loss.

## Package and Installation Dimension

|                  | A <sup>1</sup> | B <sup>2</sup> | C1          | C2         | D           | E            |
|------------------|----------------|----------------|-------------|------------|-------------|--------------|
| Package(mm)      | Φ3×48          | Φ3×55          | 100×18×9.2  | 90×16×9    | 100×80×7.2  | 130×90×15    |
| Installation(mm) |                |                | 65×12×4Φ2.4 | 50×9×2Φ3.2 | 60×76.2×4Φ3 | 124×84×4Φ3.5 |
| Box material     | SST Tube       | SST Tube       | Plastics    | Metal      | Plastics    | Metal        |

Notes: 1. Type A is only for 0.25mm fiber. 2.Type B is for 0.9mm fiber.

## Ordering Information

|        |                  |                |             |              |                     |           |   |  |   |  |   |  |
|--------|------------------|----------------|-------------|--------------|---------------------|-----------|---|--|---|--|---|--|
| WBC    | -                |                | -           |              | -                   |           | - |  | - |  | - |  |
|        |                  |                |             |              |                     |           |   |  |   |  |   |  |
| Port   | Wavelength       | Splitter Ratio | Fiber Dia.  | Fiber Length | Connector           | Package   |   |  |   |  |   |  |
| 12:1×2 | 1310: 1310nm     | 01: 1:99       | 025:Φ0.25mm | 1:1.0m       | FC,SC,LC,MU/UPC,APC | A , B ,   |   |  |   |  |   |  |
| 22:2×2 | 1550: 1550nm     | 02: 2:98       | 09:Φ0.9mm   |              |                     | C1 , C2 , |   |  |   |  |   |  |
|        | 135: 1310/1550nm | ⋮              | 20:Φ2.0mm   |              |                     | D , E     |   |  |   |  |   |  |
|        |                  | 50: 50:50      | 30:Φ3.0mm   |              |                     |           |   |  |   |  |   |  |