

## Planar Lightwave Circuit Splitters(Modules)

Optical Power Splitter is a component that splits the optical power from one optical route into a few different routes according to a certain allocation ratio. Brotechs Planar Lightwave Circuit Splitter Product family provides PLC splitters from 1x4 to 1x64 and 2x4 to 2x32 with high performance and high reliability.

Brotechs can provide customized designs to meet specialized feature applications. Also, Brotechs offers modular assemblies that integrate other components to form a full function module.

### Applications

- FTTX Solutions
- Passive Optical Network(PON)

### Options

- High Performance Fan-out Available
- Module Cassette Available
- LGX Packaging Available
- 19/23" Rack-mount Chassis Available
- Wall-mount Cabinet Available
- Outdoor Enclosure Available

### Features

- Wide Operating Wavelength Range(1310/1490/1550/1620nm)
- Ultra-Low Insertion Loss
- Low PDL
- Excellent IL Uniformity
- Compact Size
- Telcordia Qualified
- RoHS Compliant

### Specification

| Parameters                        | 1x4  | 2x4  | 1x8   | 2x8   | 1x16  | 2x16  | 1x32  | 2x32  | 1x64  |    |
|-----------------------------------|--|------|-------|-------|-------|-------|-------|-------|-------|----|
| Operation Wavelength              |  |      |       |       |       |       |       |       |       |    |
| Insertion Loss (Typ)              | <7.1   | <7.3 | <10.3 | <10.4 | <13.5 | <14.0 | <16.8 | <17.3 | <19.6 | dB |
| Insertion Loss (Max)              | <7.5   | <7.7 | <10.8 | <11.0 | <14.0 | <14.5 | <17.5 | <18.0 | <20.5 | dB |
| Uniformity (Max)                  | <0.7   | <1.0 | <1.0  | <1.2  | <1.5  | <2.0  | <2.0  | <2.5  | <2.5  |    |
| Polarization Dependent Loss (Max) | <0.3   | <0.3 | <0.3  | <0.3  | <0.3  | <0.4  | <0.3  | <0.4  | <0.3  | dB |
| Directivity (Min)                 | 55   |      |       |       |       |       |       |       |       | dB |
| Return Loss (Min)                 | 55   |      |       |       |       |       |       |       |       | dB |
| Optical Input Power               | 300  |      |       |       |       |       |       |       |       | mW |
| Operating Temperature             | -40~+85 for bare fiber type<br>0~+75 for loose tube type |      |       |       |       |       |       |       |       | °C |
| Storage Temperature               | -40~+85  |      |       |       |       |       |       |       |       | °C |
| Fiber Type                        | Corning SMF-28 or equivalent                             |      |       |       |       |       |       |       |       |    |

### Notes:

- <1>All the parameters are tested at 1310nm&1550nm and room temperature.
- <2>All the parameters are without connectors.
- <3>Connector IL is 0.2dB/pair for PC&SPC type and 0.4 dB/pair for APC type.
- <4>For the PLC splitters with connectors, the final RL specification is  $\geq 45$ dB for PC&SPC type and  $\geq 50$ dB for APC type.





## Drawing



## Ordering Information

| In    | Out      | L1 Fiber Jacket | L1 Fiber Length* | L2 Fiber Jacket | L2 Fiber Length* | Fan-out Type    | L3 Fiber Jacket | L3 Fiber Length* | In connector | Out connector |
|-------|----------|-----------------|------------------|-----------------|------------------|-----------------|-----------------|------------------|--------------|---------------|
| 3310  |          |                 |                  |                 |                  |                 |                 |                  |              |               |
| 1: 1  | 2: 2     | 1: 250um        | 1: 1M            | 3: Ribbon       | 1: 1M            | 0: W/O fan-out  | 0: None         | 0: None          | 0: None      | 0: None       |
| 2: 2  | 4: 4     | bare fiber      | A: 1.5M          | fiber           | A: 1.5M          | 1: With fan-out | 9: 900um        | 1: 1M            | 1: LC/PC     | 1: LC/PC      |
| 6: 6  | 9: 900um |                 | 2: 2M            |                 | 2: 2M            |                 | 2: 2.0mm        | A: 1.5M          | 2: SC/PC     | 2: SC/PC      |
| 8: 8  |          |                 | ...              |                 | ...              |                 | 3: 3.0mm        | 2: 2M            | A: LC/APC    | A: LC/APC     |
| C: 12 |          |                 |                  |                 |                  |                 |                 | ...              | B: SC/APC    | B: SC/APC     |
| G: 16 |          |                 |                  |                 |                  |                 |                 |                  |              |               |
| V: 24 |          |                 |                  |                 |                  |                 |                 |                  |              |               |
| W: 32 |          |                 |                  |                 |                  |                 |                 |                  |              |               |
| T: 48 |          |                 |                  |                 |                  |                 |                 |                  |              |               |
| S: 64 |          |                 |                  |                 |                  |                 |                 |                  |              |               |

\*The tolerance of fiber length is +/-0.1m.

