

# Optical Coupler

## Plank Single-mode Single-window Coupler 1x2 and 2x2; Wide band (+/-40nm)

Plank Optoelectronics Inc. is a professional developer and manufacturer of fiber optical communication components that deploy high-capacity broadband communications networking with advances in Fiber Optics technologies.

### Features

- Single window wavelength
- Low Insertion loss
- Polarization insensitive
- Variety of coupling ratios
- High directivity
- Environmentally stable and reliable

### Applications

- Telecommunications
- CATV
- Subscriber loop
- Local Area Networks(LAN)
- Test equipment
- Optical fiber sensors



### Specifications

| <b>1x2, 2x2, Single mode, Single window Wideband +/-40nm</b> |   |         |
|--|---|---------|
| Parameters   | A Grade   | B Grade |
| Operating Wavelength(nm)                                     | 1310 or 1550 (±40)  |         |
| Excess loss (dB)   | 0.2   | 0.2     |
| Uniformity (dB)  | ≤ 0.6   | ≤ 1.0   |
| Coupling Ratio (%)   | 1 : 99 to 50 : 50   |         |
| Polarization Stability (dB)                                  | 0.10  | 0.15    |
| Directivity (dB)   | >55   |         |
| Operation temp.(°C)  | -40 to +70  |         |
| Storage temp.(°C)  | -50 to +85  |         |
| Temp. Coefficient (dB/°C)                                    | <0.002( Max.)   |         |
| Dimensions (mm)  | Bare fiber: 3.0 (Φ) x 54 ( L )<br>Loose tube: 3.5(Φ) x 65 ( L )<br>PVC: 95(L) x 12(W) x 10(H) |         |

### Coupling Ratio / Insertion Loss Reference Table

| Desired Splitting Ratio | A Grade    | B Grade    |
|-------------------------|------------|------------|
| 50 : 50                 | 3.4        | 3.7        |
| 40 : 60                 | 4.4 / 2.5  | 4.8 / 2.8  |
| 30 : 70                 | 5.6 / 1.8  | 6.1 / 2.0  |
| 20 : 80                 | 7.5 / 1.2  | 8.0 / 1.3  |
| 10 : 90                 | 10.8 / 0.6 | 11.8 / 0.8 |
| 5 : 95                  | 14.6 / 0.4 | 18.5 / 0.5 |
| 1 : 99                  | 21.5 / 0.2 | 22.0 / 0.3 |

\*\* The specifications listed above do not include the effect of connector loss.

\*\* Connector Type: SC,FC,ST,SC/APC,FC/APC,LC,MU are available.

\*\* Specification values for devices with unbalanced split ratios are available upon request.