

Wavelength Independent Couplers WIC™

Gould's Wavelength Independent Coupler (WIC®) can be used to split light from one fiber to two or combine light from two fibers to one and provide high performance across a broad wavelength region (from 1270nm to 1600nm). WIC® couplers are ideal for use in two color OTDRs, full duplex transmission on a single fiber, multicolor sensors, and trunk/loop branching. These small devices are insensitive to the operating wavelength and provide low optical loss with high directivity.



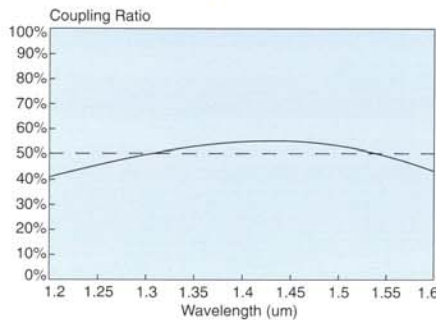
Gould components have low loss and minimal back reflection, ideal for test and measurement applications.

Specifications based on 50/50 coupling ratio

| | SERIES 1 | SERIES 2 |
|----------------------------------|----------|-------------------|
| Insertion Loss | ≤ 3.6dB | ≤ 3.9dB |
| Bandpass | | ±40nm |
| Center Wavelengths | | 1310nm and 1550nm |
| Uniformity (50/50 couplers only) | ≤ 0.8dB | ≤ 1.2dB |
| Typical Thermal Stability | | ≤ ± 0.1dB |
| Typical Polarization Sensitivity | | ≤ ± 0.1dB |
| Typical Directivity | 2x2 | ≥ 65dB |
| | 1x2 | ≥ 40dB |
| | 1x2 | ≥ 60dB with LRT™ |

Coupling Ratio/Insertion Loss Chart

| Desired Split Ratio | Insertion Loss (dB) | |
|---------------------|---------------------|----------|
| | SERIES 1 | SERIES 2 |
| 50/50 | 3.6 | 3.9 |
| 40/60 | 4.7/2.7 | 5.0/2.9 |
| 30/70 | 6.0/1.9 | 6.4/2.1 |
| 20/80 | 7.9/1.2 | 8.5/1.4 |
| 10/90 | 11.3/0.6 | 12.7/0.8 |



Typical wavelength dependence of coupling ratio for wavelength independent couplers (WIC®)

Options:

Low Reflection

Termination (LRT™): External LRT™ on the unused port (≥60dB)

Packaging:

Wavelength independent couplers come in package style 12 and can be repackaged into 22, 25, 31 and modular boxes.

Styles:

Packages and connectors are described on pages 20-23.

Product Number: (For Corning SMF-28™ Fiber)

50 - _____ 3 5 - _____ - _____ 1

Series: 03 = 100 kpsi
1, 2 32 = 200 kpsi

Coupling ratio
10 = 10/90
50 = 50/50 etc.

Port configuration
1 = 1 X 2
2 = 2 X 2
9 = 1 X 2 with LRT™

Package style
12, 22, 25 or
31. See
pages 20-23

Connector style
0 = none
See page
23