

MULTIMODE COUPLER

Modal Insensitive MM Fiber Optic Couplers and Optical Splitters

PRODUCT DATASHEET

The G&H line of micro-optic based multimode (MM) modal insensitive fiber coupler components feature stable coupling/split ratios with different types of light sources such as lasers, SLDs and LEDs.

Unlike the fused (FBT) multimode couplers/splitters, the micro-optic based multimode couplers can hold the designed split ratio unchanged for any type of light sources used during operation and testing.

The couplers are available in different split ratios (50/50, 10/90, 5/95) and can be made with either 50/125 μm or 62.5/125 μm multimode fibers. Other fibers and coupling ratios are available upon request.



Key Features

- Broad operating bandpass for $\lambda \pm 50$ nm
- High performance over single band (850 nm, 1310 nm) and dual band 850 and 1310 nm
- Stable coupling ratio for any light source
- High performance and reliability

Applications

- Multimode fiber system
- LAN
- Test instruments
- Bio/medical systems
- Sensors
- Research and development



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PRODUCT CODE: MMIC

Datasheet revision 1.1

As part of our policy of continuous product improvement, we reserve the right to change specifications at any time.

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Optical Specifications

Modal Insensitive MM Fiber Optic Couplers and Optic Splitters (850 nm and 1310 nm)

| Specification without connectors | | |
|----------------------------------|-----------------------|---------------------------------------|
| Fiber type ¹ | | 20/125 μ m 62.5/125 μ m |
| Operating wavelength | | 850 \pm 50 nm 1310 \pm 50 nm |
| Port configuration | | 1x2 |
| Insertion loss ² | Coupling ratio 50/50% | \leq 4.0/4.0 dB |
| | Coupling ratio 10/90% | \leq 11.5/1.3 dB |
| | Coupling ratio 2/95% | \geq 14.5/1.1 dB |
| PDL | | \leq 0.1 dB |
| Directivity | | \geq 38dB |
| Return loss | | \geq 30 dB |
| Power handling | | \leq 500mW |
| Operation temperature | | -20 to +70°C |
| Storage temperature | | -40°C to +85°C |
| Package dimensions | | \varnothing 5.5x34 mm |
| Lead buffer | | Bare fiber or 900 μ m jacket |

¹ Other fiber types available upon request.

² If testing with overfilled launch condition insertion loss will be slightly higher.

Order code

| | | | | | ① | ② | | | ③ | ④ | | | ⑤ | ⑥ | | | ⑦ | ⑧ | ⑨ | | | | | |
|---------------------------|---|---|---|---|---------------|---|---|--|---|-------------|--|--|---|---|------|---|---|---|---|------|--|--|--|--|
| M | M | I | C | - | | | - | | | - | | | - | | | - | | | | | | | | |
| ① ② Fiber | | | | | 50/125 μm | | | | | 62.5/125 μm | | | | | | | | | | | | | | |
| Code | | | | | 11 | | | | | 12 | | | | | | | | | | | | | | |
| ③ ④ Coupling ratio | | | | | 1% | | | | | 5% | | | | | 50% | | | | | etc. | | | | |
| Code | | | | | 01 | | | | | 05 | | | | | 050 | | | | | etc. | | | | |
| ⑤ ⑥ Buffer type | | | | | 250 μm jacket | | | | | 900 μm | | | | | | | | | | | | | | |
| Code | | | | | AA | | | | | BB | | | | | | | | | | | | | | |
| ⑦ ⑧ Lead length | | | | | 0.5 m | | | | | 1 m | | | | | etc. | | | | | | | | | |
| Code | | | | | 05 | | | | | 10 | | | | | etc. | | | | | | | | | |
| ⑨ Connector style | | | | | None | | | | | ST | | | | | FC | | | | | SC | | | | |
| Code | | | | | 0 | | | | | 2 | | | | | 3 | | | | | 4 | | | | |

Specifications are based on non-connectorized products. For connectorized specifications, please contact sales for details. Custom optical and mechanical configurations are available upon request.



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Contact us 

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MODAL INSENSITIVE MULTIMODE FIBER OPTIC COUPLERS AND OPTIC SPLITTERS