

1x2 and 2x2 PM Fused Coupler



FEATURES

- Low Excess Loss and Insertion Loss
- High Power Handling
- High Stability and Reliability
- High Extinction Ratio
- Operating On Both Fast and Slow Axes

APPLICATION

- Power Monitoring
- Coherent Communication
- Fiber Laser and Amplifier
- Fiber Gyroscope
- Fiber Sensor
- Instrumentation

PERFORMANCE SPECIFICATIONS

| Parameter | Specifications | | | | | | |
|-----------------------|--|-------------|-------------------|-------------|--------------------|-------------|-------------|
| | 780±15, 850±15nm | | 980±15, 1064±15nm | | 1310±15, 1550±15nm | | |
| Grade | P | A | P | A | P | A | |
| Insertion Loss (Max) | Coupling ratio: 50/50% | 3.6/3.6dB | 3.8/3.8dB | 3.6/3.6dB | 3.8/3.8dB | 3.6/3.6dB | 3.8/3.8dB |
| | 40/60% | 5.2/3.1dB | 5.4/3.3dB | 5.2/3.1dB | 5.4/3.3dB | 5.2/3.1dB | 5.4/3.3dB |
| | 30/70% | 5.8/2.0dB | 6.1/2.1dB | 5.8/2.0dB | 6.1/2.1dB | 5.8/2.0dB | 6.1/2.1dB |
| | 20/80% | 8.0/1.5dB | 8.2/1.7dB | 8.0/1.5dB | 8.2/1.7dB | 8.0/1.5dB | 8.2/1.7dB |
| | 10/90% | 11.6/1.2dB | 11.8/1.4dB | 11.6/1.20dB | 11.8/1.4dB | 11.6/1.20dB | 11.8/1.4dB |
| | 5/95% | 14.8/0.80dB | 15.0/1.0dB | 14.8/0.80dB | 15.0/1.0dB | 14.8/0.80dB | 15.0/1.0dB |
| | 2/98% | 18.4/0.40dB | 18.9/0.50dB | 18.4/0.40dB | 18.9/0.50dB | 18.4/0.40dB | 18.9/0.50dB |
| | 1/99% | 22.0/0.35dB | 22.5/0.40dB | 22.0/0.35dB | 22.5/0.40dB | 22.0/0.35dB | 22.5/0.40dB |
| Excess loss (Max) | 0.80dB | 1.0dB | 0.80dB | 1.0dB | 0.40dB | 0.60dB | |
| ER* (High Ratio Port) | 20dB | 18dB | 20dB | 18dB | 20dB | 18dB | |
| ER* (Low Ratio Port) | 16dB | 14dB | 16dB | 14dB | 16dB | 14dB | |
| CR Tolerance @ λc | 50/50 : ±3.0%; 40/60 : ±2.5%; 30/70 : ±2.0%; 20/80 : ±2.0%; 10/90 : ±1.0%; 5/95 : ±0.50%; 2/98 : ±0.30%; 1/99 : ±0.20% | | | | | | |
| Thermal stability | ≤ 0.005dB/°C | | | | | | |
| Return loss | ≥ 55dB | | | | | | |
| Directivity | ≥ 50dB | | | | | | |
| Optical power (CW) | ≤ 500mW | | | | | | |
| Operating Temperature | - 20 to +75°C (- 40 to +85°C Available upon request) | | | | | | |
| Storage Temperature | - 40 to +85°C | | | | | | |
| Package Dimensions | A= Standard, Φ3.0xL54 for 250um; Φ3.0xL70 for 900um (all wavelengths) M=Compact, Φ3.0xL35 for 250um; Φ3.0xL54 for 900um (1550nm only) | | | | | | |

Note:

*ER: Extinction ratio.

IL is 0.3dB higher, RL 5dB lower and ER 2dB lower for each connector added.

Connector key is aligned to slow axis.

All values referenced are without connector.

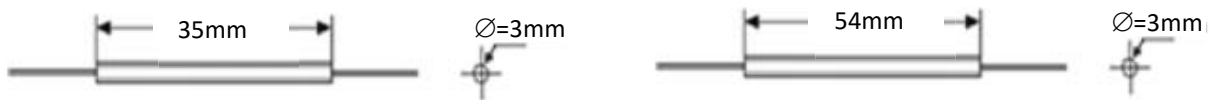
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MECHANICAL DIMENSIONS

A Package



M Package



PORT CONFIGURATIONS



ORDERING INFORMATION

| Type | Grade | Operating Wavelength | Coupling Ratio | Port | Package | Fiber Type | Pigtail Style | Fiber Length* | In Connector | Out Connector |
|--------------|-----------|----------------------|----------------|---------|-------------|------------|---------------|---------------|--------------|---------------|
| PMS=Standard | P=P grade | 78=780nm | 50=50:50 | 102=1x2 | A=A package | J=PM780 | 1=Bare fiber | 07=0.75m | 0=None | 0=None |
| | A=A grade | 85=850nm | 40=40:60 | 202=2x2 | M=M package | K=PM850 | 2=900um | 10=1.0m | 1=FC/APC | 1=FC/APC |
| | | 98=980nm | 30=30:70 | | | L=PM980 | loose tube | · | 2=FC/PC | 2=FC/PC |
| | | 06=1064nm | 20=20:80 | | | M=PM1310 | | · | 3=SC/APC | 3=SC/APC |
| | | 31=1310nm | 10=10:90 | | | N=PM1550 | | · | 4=SC/PC | 4=SC/PC |
| | | 55=1550nm | 05=5:95 | | | | | | 5=ST | 5=ST |
| | | SS=Custom | 02=2:98 | | | | | | 6=LC/UPC | 6=LC/UPC |
| 01=1:99 | | | | | | | 7=LC/APC | 7=LC/APC | | |

*Other length is available upon request, However, 900µm loose tube is only up to 2m.