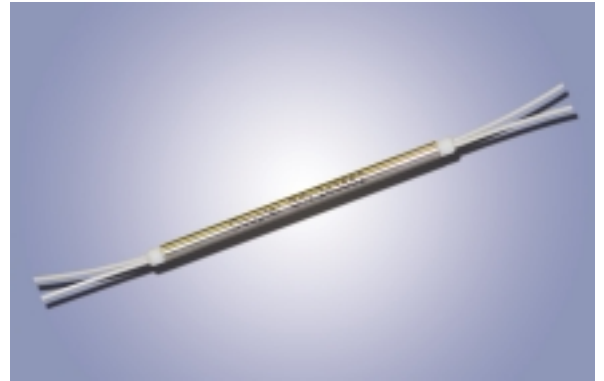




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## Single Mode Couplers

Single Mode Couplers are used to distribute optical signals to two output fibers. We offer various types of single mode coupler including standard couplers, polarization independent couplers, wavelength independent couplers and wavelength flattened couplers. These couplers are highly stable. They have low insertion loss, low polarization sensitivity and excellent uniformity.



### Types

- Single Mode **Standard** Couplers
- Single Mode **Polarization Independent** Couplers
- Single Mode **Wavelength Independent** Couplers
- Single Mode **Wavelength Flattened** Couplers

### Applications

- Long Haul Telecommunications
- Test Equipment
- CATV System
- Fiber Optic Sensors
- Network Monitoring
- LAN, WAN Systems
- Subscribers Loop

### Features

- Ultra Low Insertion Loss
- Ultra Low Polarization Sensitivity
- Dual-Window
- Various Coupling Ratio
- Wide Bandwidth
- Environmentally Stable
- Excellent Uniformity



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## SPECIFICATIONS

### Single Mode Couplers (1310nm, 1550nm)

| Parameter             |                      | Standard                        | Polarization Independent     | Wavelength Independent | Wavelength Flattened | Units   |    |
|-----------------------|----------------------|---------------------------------|------------------------------|------------------------|----------------------|---------|----|
| Operating Wavelength  |                      | 1310 or 1550, others on request |                              |                        | 1310 & 1550          | nm      |    |
| Bandwidth             |                      | ±20                             | ±20                          | ±40                    | ±40                  | nm      |    |
| Excess Loss           | Typ                  | 0.05                            | 0.05                         | 0.05                   | 0.06                 | dB      |    |
|                       | Max                  | 0.08                            |                              |                        |                      | dB      |    |
| Insertion Loss        | Coupling ratio       |                                 |                              |                        |                      |         |    |
|                       | 50/50                | Typ                             | 3.05                         | 3.05                   | 3.05                 | 3.06    | dB |
|                       |                      | Max                             | 3.3                          | 3.3                    | 3.4                  | 3.6     | dB |
|                       | 40/60                | Typ                             | 4.1/2.3                      |                        |                      |         | dB |
|                       |                      | Max                             | 4.4/2.5                      | 4.4/2.5                | 4.4/2.5              | 4.7/2.7 | dB |
|                       | 30/70                | Typ                             | 5.3/1.6                      |                        |                      |         | dB |
|                       |                      | Max                             | 5.6/1.8                      | 5.6/1.8                | 5.6/1.8              | 6.0/1.9 | dB |
|                       | 20/80                | Typ                             | 7.1/1.0                      |                        |                      |         | dB |
| Max                   |                      | 7.4/1.2                         | 7.4/1.2                      | 7.4/1.2                | 7.9/1.2              | dB      |    |
| PDL                   | 50/50, 40/60         | Max                             | 0.1                          | 0.04                   | 0.1                  | dB      |    |
|                       | 30/70, 20/80         | Max                             | 0.15/0.10                    | 0.06/0.04              | 0.15/0.10            | dB      |    |
| Thermal Stability     |                      | Max                             | 0.002 dB over -40°C to +85°C |                        |                      | dB      |    |
| Directivity           | Configuration        |                                 |                              |                        |                      |         |    |
|                       | 1x2                  | Min                             | 50, 60 on request            |                        |                      | dB      |    |
|                       | 2x2                  | Min                             | 65                           |                        |                      | dB      |    |
| Return Loss           | 1x2                  | Min                             | 50                           |                        |                      | dB      |    |
|                       | 2x2                  | Min                             | 65                           |                        |                      | dB      |    |
| Operating Temperature | 250µm bare fiber     |                                 | -40 to +85                   |                        |                      | °C      |    |
|                       | 900µm loose tube     |                                 | -20 to +70                   |                        |                      | °C      |    |
|                       | 2 or 3mm loose cable |                                 | -20 to +70                   |                        |                      | °C      |    |

\*Above specifications are for device without connectors.

### Single Mode Couplers (980nm, 1060nm)

| Parameter             |  | Standard    |            |           |          | Units   |    |
|-----------------------|--|-------------|------------|-----------|----------|---------|----|
| Operating Wavelength  |  | 980 or 1060 |            |           |          | nm      |    |
| Bandwidth             |  | ±10         |            |           |          | nm      |    |
| Configuration         |  | 1x2 or 2x2  |            |           |          | --      |    |
| Excess Loss           |  | Max         | 0.1        |           |          | dB      |    |
| Coupling Ratio        |  | 1/99        | 10/90      | 20/80     | 50/50    | %       |    |
| Insertion Loss        |  | Max         | 21.9/0.25  | 11.0/0.70 | 7.7/1.2  | 3.5/3.5 | dB |
| WDL                   |  |             | 1.5/0.08   | 0.8/0.1   | 0.7/0.15 | 0.4/0.4 | dB |
| PDL                   |  | Max         | 0.1        |           |          | dB      |    |
| Return Loss           |  | Min         | 50         |           |          | dB      |    |
| Thermal Stability     |  | Max         | 0.002      |           |          | dB/°C   |    |
| Operating Temperature |  |             | -20 to +70 |           |          | °C      |    |

\*Above specifications are for device without connectors.

## ORDERING CODES

OLCPL - S - [ ] - [ ] - [ ] - [ ] - [ ] - [ ]

| Features                 | Code |
|--------------------------|------|
| Standard                 | SD   |
| Polarization Independent | PI   |
| Wavelength Independent   | WI   |
| Wavelength Flattened     | WF   |

| Wavelength    | Code           |
|---------------|----------------|
| 1310 nm       | 131            |
| 1550 nm       | 155            |
| 1310 & 1550nm | 135            |
| Others        | Please Specify |

| Connector Type | Code |
|----------------|------|
| No Connector   | NC   |
| FC/PC          | FP   |
| FC/APC         | FA   |
| SC/APC         | SA   |
| Others         | XX   |

| Port  | Code |
|-------|------|
| 1 x 2 | 12   |
| 2 x 2 | 22   |

| Coupling Ratio | Code |
|----------------|------|
| 50/50          | 50   |
| 40/60          | 40   |
| 30/70          | 30   |
| 20/80          | 20   |

| Lead Types and Package Dimensions | Code                         |
|-----------------------------------|------------------------------|
| 250 µm bare fiber                 | Ø3.0mm x40mm<br>25           |
| 900 µm loose tube                 | A: Ø3.0mm x 54mm<br>90A      |
|                                   | B: 90mm x 16mm x 9 mm<br>90B |
| 3 mm loose cable                  | B: 90mm x 16mm x 9mm<br>3B   |
|                                   | C: 106mm x 79mm x 10mm<br>3C |

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