

# FBT COUPLER

## Multimode Coupler

### Specifications (Based on 50/50)

| Parameter                                |                                  |                                   |                  |                  |                  |                  |
|--|----------------------------------|-----------------------------------|------------------|------------------|------------------|------------------|
| Central Wavelength                       |                                  | 630, 850, 980, 1060, 1310, 1550nm |                  |                  |                  |                  |
| Configuration                            |                                  | 1x2, 2x2                          | 1x3              | 1x4              | 1x8              | 1x16             |
| Insertion Loss*                          | 50/125 Fiber                     | ≤ 4.9 dB                          | ≤ 6.7 dB         | ≤ 7.8 dB         | ≤ 11.5 dB        | ≤ 15 dB          |
|  | 62.5/125, 100/140, 105/125 Fiber | ≤ 4.6 dB                          | ≤ 6.4 dB         | ≤ 7.5 dB         | ≤ 11 dB          | ≤ 14.2 dB        |
| Directivity                              |                                  | ≥ 40 dB                           |                  |                  |                  |                  |
| TDL                                      |                                  | ≤ 0.2 dB                          |                  |                  |                  |                  |
| Operating & Storage Temperature          |                                  | - 40° C ~ + 85° C                 |                  |                  |                  |                  |
| Package Dimensions<br>(dimensions in mm) | Light Duty ( B )                 | 3.0(Φ) x 55.0(L)                  | 3.0(Φ) x 60.0(L) | 3.0(Φ) x 60.0(L) | 3.0(Φ) x 60.0(L) | 5.0(Φ) x 60.0(L) |
|  | Medium Duty ( L )                | 3.0(Φ) x 60.0(L)                  | 100 x 12 x 8     | 100 x 12 x 8     | 100 x 12 x 8     | 135 x 100 x 10   |
|  | Heavy Duty ( K, R )              | 100 x 12 x 8                      | 95 X 75 X 6      | 95 X 75 X 6      | 130 X 100 X 6    | 130 X 100 X 8.5  |

### Tap Couplers

| Coupling Ratio | Maximum Insertion Loss |             |                         |
|----------------|------------------------|-------------|-------------------------|
|                | 50/125 μm              | 62.5/125 μm | 100/140 μm & 105/125 μm |
| 60/40          | 4.5/6.5 dB             | 3.6/5.8 dB  | 3.0/5.0 dB              |
| 70/30          | 3.9/8.0 dB             | 3.0/7.0 dB  | 2.3/6.3 dB              |
| 80/20          | 3.2/10.0 dB            | 2.4/9.0 dB  | 1.7/8.3 dB              |
| 90/10          | 2.7/13.5 dB            | 1.9/12.5 dB | 1.2/12.0 dB             |
| 95/5           | 2.4/17.0 dB            | 1.5/16.5 dB | 1.0/16.0 dB             |
| 99/1           | 1.4/22.0 dB            | 1.1/22.0 dB | 0.8/22.0 dB             |

\* All data tested under LED direct launching conditions.

Note1: All values specified are without connectors.

Note2: Higher performance specifications available upon request.

### Order Information

| M           | M       | C                | -                      | A          | -            | -                    | -          | - | - | - | - | - | - |
|-------------|---------|------------------|------------------------|------------|--------------|----------------------|------------|---|---|---|---|---|---|
| Port Number | A Grade | Coupling Ratio   | Fiber Type             | Wavelength | Fiber Length | Pigtail Style        | Connector  |   |   |   |   |   |   |
| 12: 1 x 2   |         | xy % : xy %      | 1: 50/125 μm           | A: 630 nm  | 1: 1 meter   | (=Package style)     | 0: None    |   |   |   |   |   |   |
| 22: 2 x 2   |         | EVEN: even split | 2: 62.5/125 μm         | B: 850 nm  | 2: 2 meter   | B: bare fiber        | 1: FC/PC   |   |   |   |   |   |   |
| 13: 1 x 3   |         |                  | 3: 100/140 μm          | C: 1060 nm | S: Special   | L: 900 μm loose tube | 3: SC/ PC  |   |   |   |   |   |   |
| 14: 1 x 4   |         |                  | 4: Special             | D: 980 nm  |              | K: 2mm cable         | 9: Special |   |   |   |   |   |   |
| 18: 1 x 8   |         |                  | 5: 105/125 μm, NA=0.15 | E: 1310 nm |              | R: 3mm cable         | C: ST      |   |   |   |   |   |   |
| 116: 1 x 16 |         |                  | 6: 105/125 μm, NA=0.22 | H: 1550 nm |              |                      |            |   |   |   |   |   |   |