

# (2+1)×1 Multi-Mode Pump Combiner (MPC)

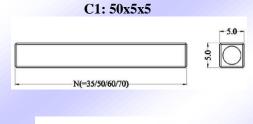
## **Description**

This (2+1)×1 multi-mode fiber combiner is designed for high power fiber laser application. It combines two pump lasers and one signal channel into one double cladding output fiber. Fiber type can be customized.

## **Key Features**

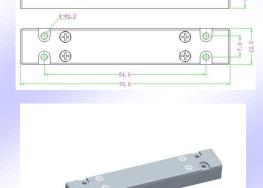
- High Signal Transfer Efficiency
- High Pump Efficiency
- Wavelength Insensitive
- Custom Configurations Available

#### **Mechanical Dimension**







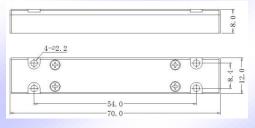








C4: 70x12x8





Unit: mm



# **Specifications**

| Parameters/Test conditions |                                   |                    | Min                      | Тур. | Max                        | Unit                 | Note  |
|----------------------------|-----------------------------------|--------------------|--------------------------|------|----------------------------|----------------------|---|
| 1                          | Signal Operating Wavelength       |                    | 1000                     | 1064 | 1100                       | nm                   |   |
| 2                          | Pump Operating Wavelength         |                    | 800                      |      | 1000                       | nm                   |   |
| 3                          |                                   | Core Diameter      | 105                      |      | μm                         | Refer to fiber codes |   |
| 4                          | Pump Fiber                        | Cladding Diameter  | 125                      |      |                            |                      | μm  |
| 5                          |                                   | Numerical Aperture | 0.15, 0.22               |      |                            |                      | -   |
| 6                          | 6 Signal Fiber                    |                    | 12/125 SCF or 12/125 DC  |      |                            | CF                   | Refer to fiber codes                          |
|                            |                                   |                    | Pump Efficiency (%)      |      | Signal Insertion Loss (dB) |                      | D.C CI  |
| 7                          | Output                            | 25/250 DCF         | >90 (Typ. 93)            |      | <0.7 (Typ. 0.5)            |                      | Refer to fiber codes                          |
| /                          | Fiber 30/250 DCF                  |                    | >90 (Typ. 93) <0.7 (Typ. |      | p. 0.5)                    |                      |   |
| 8                          | $M^2$                             |                    |                          |      | 1.3                        | -                    |   |
| 9                          | Optical Isolation                 |                    | 25                       | 30   |                            | dB                   |   |
| 10                         | Fiber Length                      |                    | 0.8                      |      |                            | m                    | Each port                                     |
| 11                         | Power Handling                    |                    |                          | 25   | 50                         | W                    | Each port                                     |
| 12                         | Operating Environment Temperature |                    | -5                       |      | +70                        | °C                   |   |
| 13                         | Operating Humidity                |                    | 5                        |      | 95                         | %RH                  | Not recommend in high humidity for long time. |
| 14                         | Storage Temperature               |                    | -20                      |      | +70                        | °C                   |   |
| 15                         | Package                           |                    | C1, C2, C3, C4           |      |                            | <u>-</u>             | Handling power is different with PKG          |

# **Ordering Information**

 $MPC-(2+1)\times 1-F(B)-Pump\ wavelength/Pump\ power-Signal\ wavelength-Pump\ fiber/Signal\ fiber-Output\ fiber-Package-Fiber\ length/Pump\ power-Signal\ wavelength/Pump\ power-Signal\ power-S$ 

### Note:

F: Forward pump; B: Backward pump.

Pump/Signal/Output fiber: refer to fiber codes.

Package: C1, C2, C3, C4

C1: 10W/port; C2: 10W/port; C3: 25W/port; C4: 50W/port