

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

## Description

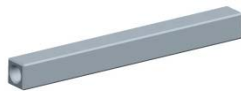
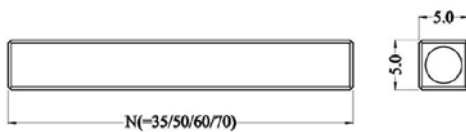
This (2+1)×1 multi-mode fiber combiner is designed for high power fiber laser application. It combines two pump lasers and one signal channel into one double cladding output fiber. Fiber type can be customized.

## Key Features

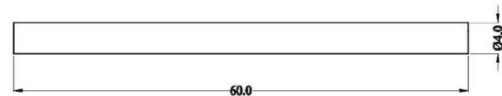
- High Signal Transfer Efficiency
- High Pump Efficiency
- Wavelength Insensitive
- Custom Configurations Available

## Mechanical Dimension

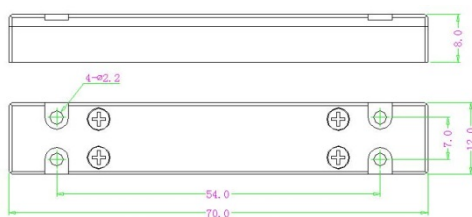
**C1: 50x5x5**



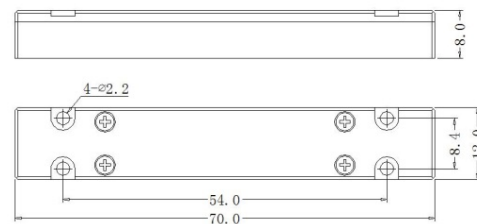
**C2: Ø4x60**



**C3: 70x12x8**



**C4: 70x12x8**



**Unit: mm**

## Specifications

| Parameters/Test conditions |                                   | Min                 | Typ.       | Max                           | Unit | Note  |
|----------------------------|-----------------------------------|---------------------|------------|-------------------------------|------|---|
| 1                          | Signal Operating Wavelength       | 1000                | 1064       | 1100                          | nm   |   |
| 2                          | Pump Operating Wavelength         | 800                 |            | 1000                          | nm   |   |
| 3                          | Pump Fiber                        | Core Diameter       |            | 105                           | μm   | Refer to fiber codes                          |
| 4                          |                                   | Cladding Diameter   |            | 125                           | μm   |   |
| 5                          |                                   | Numerical Aperture  | 0.15, 0.22 |                               | -    |   |
| 6                          | Signal Fiber                      | HI1060 or 6/125 DCF |            |                               |      | Refer to fiber codes                          |
|                            |                                   | Pump Efficiency (%) |            | Signal Insertion Loss (dB)    |      | Refer to fiber codes                          |
| 7                          | Output Fiber                      | 25/250 DCF          |            | >90 (Typ. 93) <0.7 (Typ. 0.5) |      |   |
|                            |                                   | 30/250 DCF          |            | >90 (Typ. 93) <0.7 (Typ. 0.5) |      |   |
| 8                          | M <sup>2</sup>                    |                     |            | 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               | -40                 |            | +85                           | °C   |   |
| 15                         | Package                           | C1, C2, C3, C4      |            |                               | -    | Handling power is different with PKG          |

## Ordering Information

MPC-(2+1)×1-F(B)-Pump wavelength/Pump power-Signal wavelength-Pump fiber/Signal fiber-Output fiber-Package-Fiber length

### 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