

HIGH POWER PM CIRCULATOR

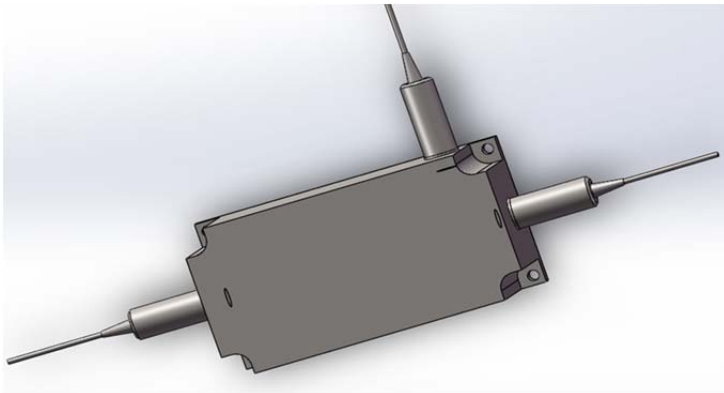
For fiber lasers and amplifiers

The 1.0um wavelength region high-power circulators are built using TGG magneto-optic crystal and NdFeB magnets. The circulator routes incoming signal from Port-1 to Port-2, and returned (or incoming) signal from Port-2 to Port-3. They have the advantages of high peak laser damage threshold, low insertion loss, high isolation (32dB), high polarization extinction ratio (> 23dB). They are best used for dispersion compensation in ultrafast fiber lasers and CPAs. The distinguished high quality is attributed to a combination of our years of experience, advanced design technology aided with computer modeling, and sophisticated manufacturing technology.

They are targeted for applications up to 50W input power. They provide the ultimate protection for Yb- or Er-doped fiber lasers and amplifiers.

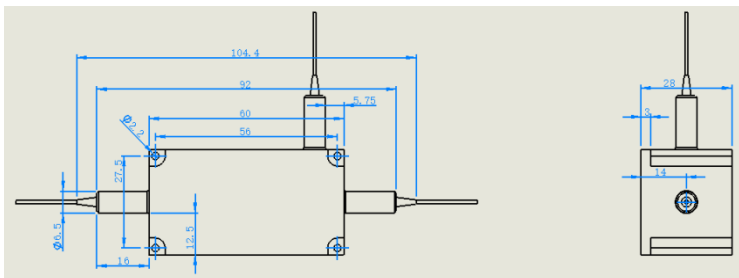
We offer various input and output fiber options, such as standard single-mode fiber, PM fiber or large mode area (LMA) fibers with either in single-clad (SC) type or in double-clad (DC) type.

Mode matching functionalities or the so-called mode-field adaptations (MFA) and suppression functionality for amplified spontaneous emission (ASE) can be integrated in the isolator.



- Features:**
- >30 dB peak isolation for single stage core, >60dB for dual-stage core
 - Up to 50W input power
 - Mode field adaption functionality integration
 - Up to 30dB suppression on back-reflected broadband ASE
 - Compact footprint

In mm



Applications:

- CPA fiber amplifiers
- Laser pulse stretching & compressing
- Dispersion compensation together with FBGs

Specification

Product Type	Circulator	Circulator with build-in BPFs	Circulator with build-in MFA	Circulator with build in BPFs & MFA
Operating Wavelength (nm)	1064, 1030, or specified wavelength and passband			
Passband (nm)	+/- 20	+/- 2, +/- 4 or specify	+/- 20	+/- 2, +/- 4 or specify
Peak Isolation (dB)	28			
Min. In-band Isolation (dB)	>25			
Typical Insertion Loss (dB, @0.5W)	1.3	1.5	1.3	1.5
Max. In-band Insertion Loss (dB, @ 0.5W)	1.5	1.8	1.5	1.8
Min. Extinction Ratio (dB, for PM)	20			
Min. Return Loss (dB, Input/Output)	50			
Min. Blocking for Back-Reflected ASE (%) a		95		95
Max. M2	1.2 (PL1060L, PLMA10, 15, 20), 1.3 (PLMA 25)			
Fiber T ype b	PM980; PM1060L, PLMA10um, PLMA15um, PLMA20um, &PLMA 25um, or specify			
Max Peak Power Handling (kW, cw)	10			
Max Power Handling (W, ns pulse)	10, 20, 30			
Dimensions (mm, c	60*31.5*28			

a. For passband +/- 2nm

b. M2 is specified for PM98 fiber as input, PLMA fibers with nominal core diamter 10, 15, 20, or 25um output fiber.

c. Dimension is for single stage isolators