

2W MEDIUM POWER PM ISOLATOR & Derivatives

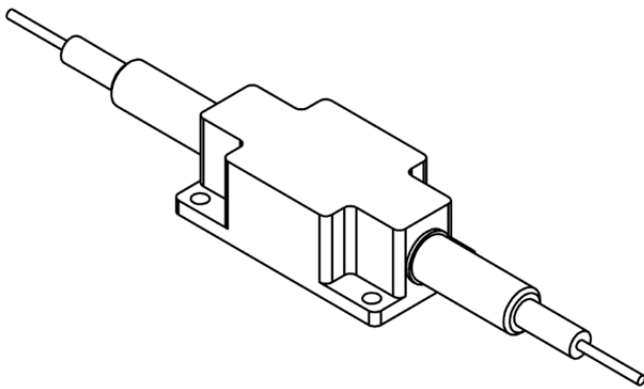
For fiber lasers and amplifiers

Our yttrium iron garnet (YIG) film crystal based isolators have the advantages of high isolation (>35dB), high polarization extinction ratio (> 23dB) and the greatest possible transmission. With more than 60dB isolation, our two-stage isolators offer the best isolation available on the market. 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.

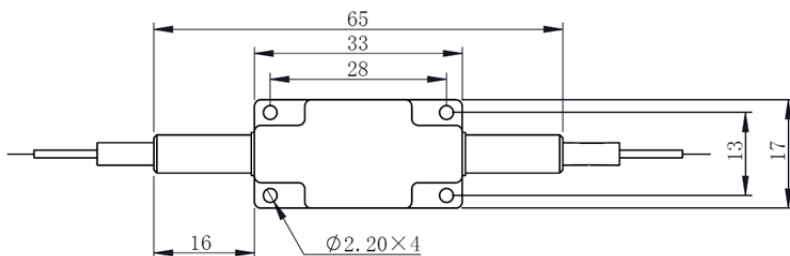
They are targeted for applications up to 2W input powers at 1064nm and up to 3W input at 1550nm wavelength. They provide the ultimate protection for Yb- or Er-doped fiber lasers and amplifiers.

We offer various input and output fiber options, such 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) are integrated within the fiber isolators if different fibers for input and output are used. In addition, suppression functionality for amplified spontaneous emission (ASE) can be integrated in the isolator.



- Features:**
- Isolation > 30dB for single stage, >60dB for dual-stage
 - Compact footprint
 - Up to 2W laser power for 1064nm
 - Up to 3W laser power for 1550nm
 - High transmission AR coating on optical surfaces
 - Mode field adaption functionality integration
 - ASE suppression functionality integration



Applications:

- Decouple oscillators from ASE created by amplifiers
- Eliminate optical feedback that causing relaxation oscillations in mode-locked lasers
- Eliminate frequency instability in seed lasers

Specification:

Product Type		Isolator	Isolator with build-in BPF	Isolator with build-in MFA	Isolator with build-in BPF & MFA
Operating Wavelength (nm)		1064±2, 1075±2, 1080±2, or specified wavelength and passband			
Peak Isolation (dB)		35			
Min. In-band Isolation (dB)		>30			
Max. Insertion Loss (dB, @0.5W) a		2.2, 2.0, 1.8	2.4, 2.2, 2.0	2.4, 2.2, 2.0	2.4, 2.2, 2.0
Max. In-band Insertion Loss (dB, @ 0.5W) a		2.6, 2.4, 2.2	2.8, 2.6, 2.5	2.8, 2.6, 2.5	2.8, 2.6, 2.5
Max. Polarization Dependent Loss (dB, for non-PM)		0.15			
Min. Extinction Ratio (dB, for PM)		23			
Min. Return Loss (dB, Input/Output)		50			
Min. Blocking for Back-Reflected ASE (%)			95		95
Max. M2		1.2			
Fiber T type b		HI1060, PM980; PLMA10um, PLMA15um, PLMA20um, & PLMA25um, or specify			
Max. power handling	Average for non -PM (W)	2			
	Average for PM (W)	1			
	Pulse peak (W)	1000			
Dimensions (mm, L×W×H)		65*17*12	70*17*13		

a. Insertion loss values are for 1064nm, 1075nm, and 1080nm, respectively

b. M2 is specified for SMF (PM98, HI1060) as input fiber, LMA or PLMA fibers with nominal core diameter 10, 15, 20, or 25um output fiber.