

Low Power

Faraday Rotators and Isolators - 1050 nm to 1080 nm

Our 1050 nm to 1080 nm Low Power Faraday Rotators rotate the plane of polarized light 45° in the forward direction and an additional 45° of non-reciprocal rotation in the reverse direction while maintaining the light's linear polarization. When placed between crossed polarizers, a Faraday rotator becomes an optical isolator. An optical isolator provides high transmission in the forward direction and strongly attenuates any light traveling in the reverse direction effectively protecting seed sources from the deleterious effects of back reflections.

Our 1050 nm to 1080 nm Low Power Isolators can be ordered with either dichroic glass polarizers or with polarizing beam splitter cubes. If protecting a seed source from back reflections from a Q-switched laser, we recommend using polarizing beam splitter cubes due to their ability to withstand high pulse energies. Two isolators can be used in series if 60 dB isolation is required to assure back reflections do not cause frequency instability from a single frequency single seed laser.



FEATURES

- Completely passive; no tuning required
- Compact size

APPLICATIONS

- Laser Pumping
- Amplification
- Protection of single frequency injection seed source

OPTIONS

- Choice of dichroic glass or polarizing beam splitter cube polarizers
- Customization

Specifications	Rotator	Isolators ¹	
Polarizer Type	N/A	Polarcor	PBS Cube
Clear Aperture (mm)	1.5	1.5	
Transmission at 22 °C (%)	>78	>75	
Isolation at 22 °C (dB)	N/A	>30	
Damage Threshold	8 J/cm ² at 10 ns or 20 ns	500 mW CW	1 MW/cm ² at 10 ns