



Electro-Optics Technology, Inc.

# Innovative High Quality Laser Solutions

## MAKROS

Faraday Rotators & Isolators  
1900 nm to 2100 nm



EOT's MAKROS line of Faraday devices builds on over 30 years of experience in successfully protecting lasers from destabilizing and potentially damaging back reflections. The MAKROS line has been specifically designed to meet the needs of high power and high energy 2  $\mu\text{m}$  (1900 nm to 2100 nm) lasers.

Our MAKROS rotators and isolators deliver industry-best laser reliability and performance while providing superior isolation and maintaining very high transmission.

EOT's MAKROS products rely on the Faraday effect from high Verdet constant, low absorption materials to rotate the plane of linearly polarized light in the forward direction and an additional 45° of non-reciprocal rotation in the reverse direction. When these Faraday rotators are placed between crossed polarizers, they can be used as a Faraday Isolator. The MAKROS is available as a rotator or an isolator.

### FEATURES

- Completely passive; no tuning required
- Rugged design suitable for harsh operating environments
- Specified performance to 30 W
- Optically contacted PBS cubes for improved damage threshold
- All isolators contain rejected beam escape ports

### OPTIONS

- Input/Output waveplates available
- Precision mounting available
- Customization requests encouraged

### APPLICATIONS

- Ho or Tm lasers
- High Harmonic Conversion
- High Energy Physics
- Biological & Medical Systems, Research, & Device Manufacturing
- Ultrafast R&D
- Microelectronics
- Micromachining
- Particle Acceleration



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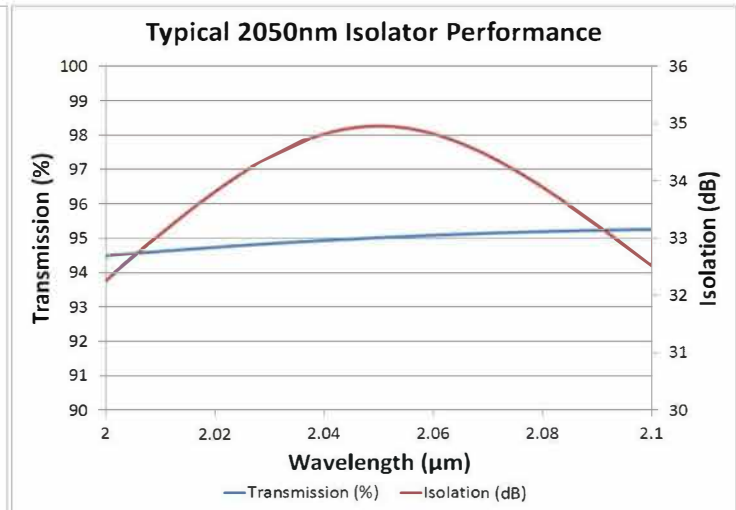
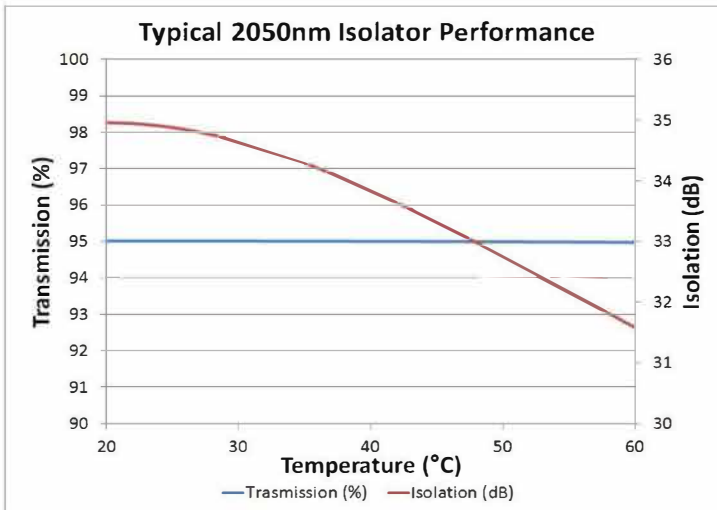
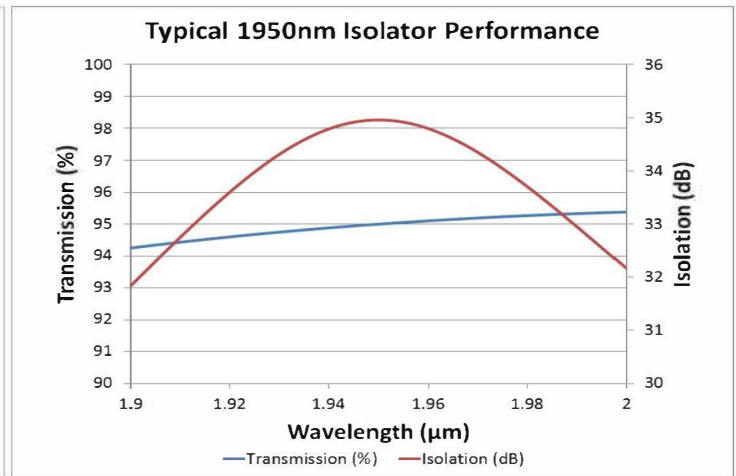
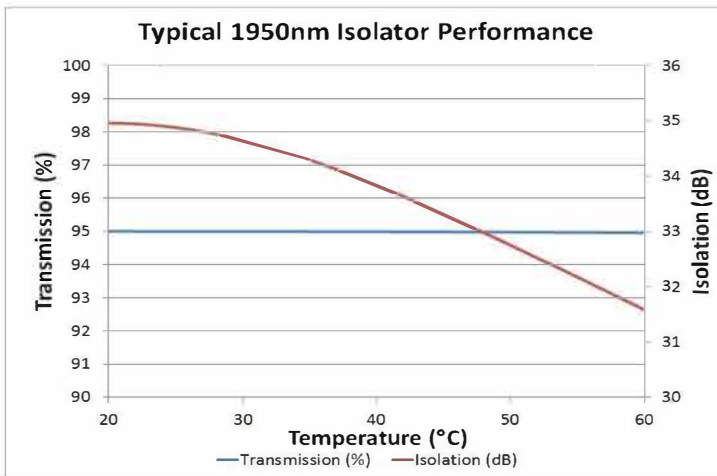
## SPECIFICATIONS

|                         | Rotator                      | Isolator <sup>a</sup>        |
|-------------------------|------------------------------|------------------------------|
| Clear Aperture          | 4 mm                         | 4 mm                         |
| Transmission at 22 °C   | >95%                         | >92%                         |
| Isolation at 22 °C      | N/A                          | >30 dB                       |
| Pulsed Damage Threshold | 5 J/cm <sup>2</sup> at 10 ns | 5 J/cm <sup>2</sup> at 10 ns |
| Power Handling          | 30 W                         | 30 W                         |

Product specifications are subject to change. All products are RoHS compliant.

<sup>a</sup> Escape ports should be used if rejected light is >1 W or 0.15 J/cm<sup>2</sup> at 10 ns or forward light is >25 W. All stray beams should be properly terminated.

NOTE: Return loss-free working distance ≥25 mm for a collimated beam



The standard MAKROS models are available at wavelengths common to many applications but we can also supply the MAKROS optimized for non-standard wavelengths and at various operating temperatures. All customization requests are strongly encouraged. For questions or quotations please email or call our sales representatives at SALES@EOTECH.COM or +1.231.935.4044.



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