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## 25.4mm Dia. 5°, 1030nm Highly-Dispersive Ultrafast Mirror

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Stock **#12-333** 20+ In Stock

-

1

+

A\$1,224<sup>.00</sup>

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General

Type:

Laser Mirror

Typical Applications:

Yb:doped 1st Harmonic

Model Number:

HD59

Physical & Mechanical Properties

|                                                                                                                                                                             |                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| 25.40 +0.0/-0.1                                                                                                                                                             | Diameter (mm):                |
| 6.35 ±0.2                                                                                                                                                                   | Thickness (mm):               |
| Commercial Polish                                                                                                                                                           | Back Surface:                 |
| 80                                                                                                                                                                          | Clear Aperture (%):           |
| 10 ±5                                                                                                                                                                       | Wedge Angle (arcmin):         |
| Optical Properties                                                                                                                                                          |                               |
| Dielectric                                                                                                                                                                  | Coating Type:                 |
| Ultrafast (1000-1060nm)                                                                                                                                                     | Coating:                      |
| 1000 - 1060                                                                                                                                                                 | Wavelength Range (nm):        |
| 1030                                                                                                                                                                        | Design Wavelength DWL (nm):   |
| Fused Silica (Corning 7980)                                                                                                                                                 | Substrate: □                  |
| 5                                                                                                                                                                           | Angle of Incidence (°):       |
| Coating Specification:<br>R <sub>avg</sub> >99.8%, GDD = -500fs <sup>2</sup> @ 1000 - 1060nm (p-polarization)<br>R <sub>abs</sub> >99.9% @ 1030nm (typical, p-polarization) |                               |
| Damage Threshold, By Design: □<br>0.3 J/cm <sup>2</sup> @ 1030nm, 50fs, 1kHz, 100µm Beam Diameter                                                                           |                               |
| 99.9 (typical, p-polarization)                                                                                                                                              | Reflection at DWL (%):        |
| -500fs <sup>2</sup> @ 1000 - 1060nm                                                                                                                                         | GDD Specification:            |
| N/10                                                                                                                                                                        | Irregularity (P-V) @ 632.8nm: |
| >99.8% @ 1000 - 1060nm (p-polarization)                                                                                                                                     | Minimum Reflectivity:         |

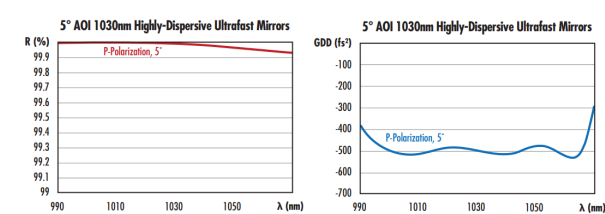
|                       |                             |
|-----------------------|-----------------------------|
| Regulatory Compliance |                             |
| Compliant             | RoHS 2015:                  |
| View                  | Certificate of Conformance: |
| Compliant             | Reach 235:                  |

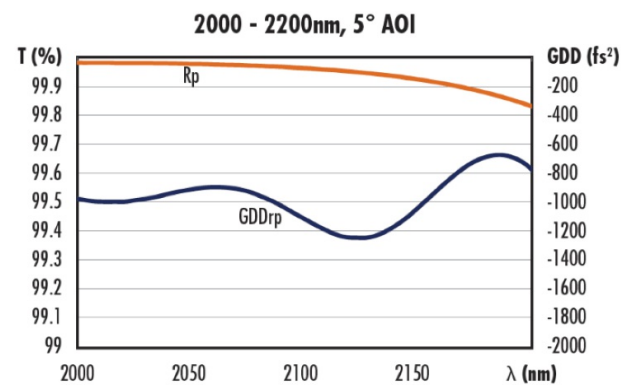
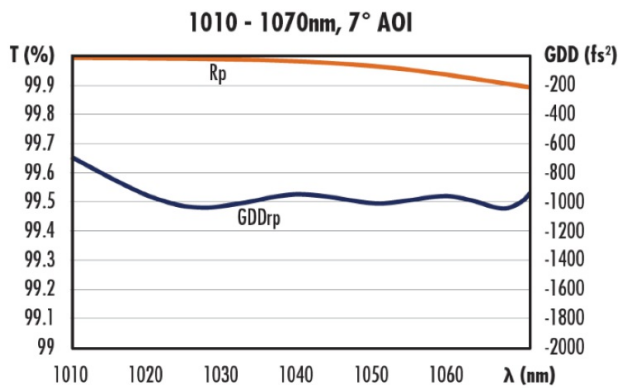
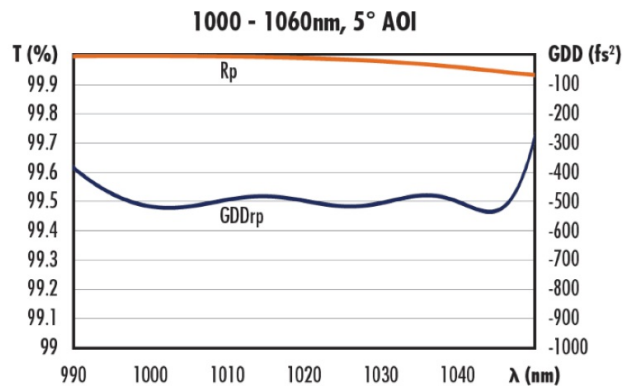
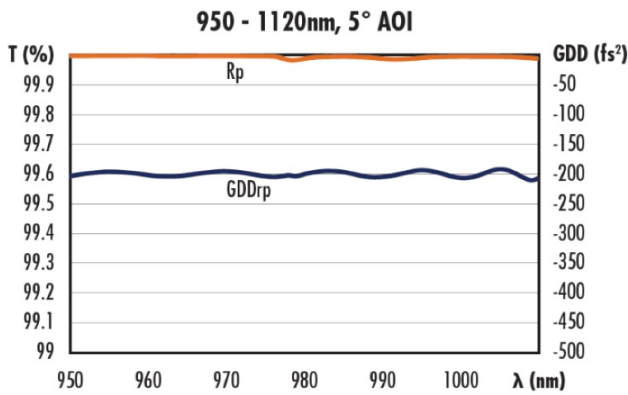
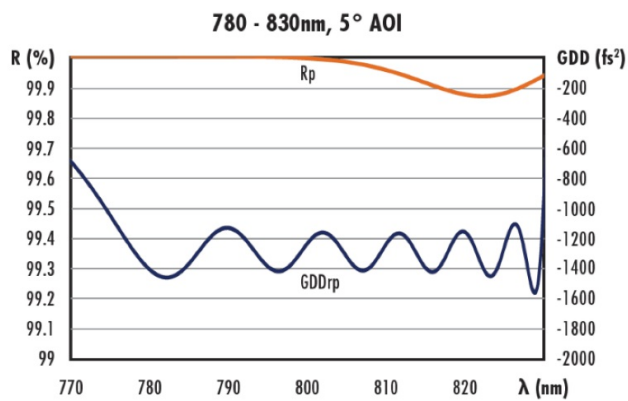
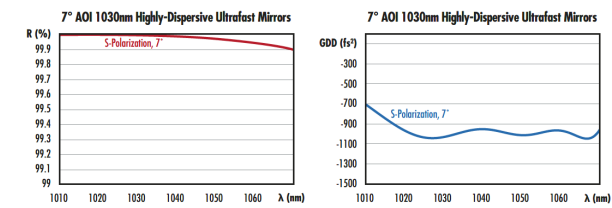
## Product Details

- Highly Negative GDD up to -1000 fs<sup>2</sup> at 7° AOI
- >99.8% Minimum Reflection across 60nm Bandwidth
- Ideal for Dispersion Compensation of Yb:doped Fiber Lasers
- Ultrafast Chirped Coating

UltraFast Innovations (UFI) 1030nm Highly-Dispersive Ultrafast Mirrors are characterized by an exceptionally low GDD and high reflectance over their 60nm bandwidth due to an optimized multilayer coating. Based on dispersive optical interference, the ultrafast chirped coating provides these mirrors with a highly negative GDD of -500fs<sup>2</sup> or -1000fs<sup>2</sup> at their design angle of incidence, 5 or 7°. These mirrors feature a typical reflectance of >99.9% at their design wavelength and a minimum reflectance of 99.8% across their bandwidth. UFI 1030nm Highly-Dispersive Ultrafast Mirrors are ideal for pulse compression and dispersion compensation of Yb:doped lasers such as hybrid Mamyshev fiber and thin disk lasers. Standard imperial sizes of ½" or 1" (12.7mm or 25.4mm) are available; please contact us if your laser system requires a custom size, wavelength, or ultrashort pulses and we would be happy to find the right solution for your application.

## Technical Information





## Custom

Edmund Optics offers comprehensive custom manufacturing services for optical and imaging components tailored to your specific application requirements. Whether in the prototyping phase or preparing for full-scale production, we provide flexible solutions to meet your needs. Our experienced engineers are here to assist—from concept to completion.

Our capabilities include:

- Custom dimensions, materials, coatings, and more
- High-precision surface quality and flatness
- Tight tolerances and complex geometries
- Scalable production—from prototype to volume

Learn more about our [custom manufacturing capabilities](#) or submit an inquiry [here](#).

## Compatible Mounts

