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25.4mm Dia., 1030nm Highly-Dispersive Ultrafast Mirror with Reduced Thermal Lensing

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UltraFast Innovations (UFI) 1030nm Highly-Dispersive Ultrafast Mirrors with Reduced Thermal Lensing

Stock **#17-070** **5 In Stock**

- 1 + **€896**.00

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Volume Pricing	
Qty 1-9	**€896,00** each
Qty 10+	**€650,00** each
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Prices shown are exclusive of VAT/local taxes

Product Downloads

General

Model Number:

HD64

Physical & Mechanical Properties

Wedge Angle (arcmin):

10

Clear Aperture (%):

80

Back Surface:
Commercial Polish

Diameter (mm):
25.40 +0.00/-0.05

Thickness (mm):
6.35 ±0.20

Optical Properties

Coating Specification:
R_{avg} >99.5% @ 1010 - 1050nm (5° AOI, p-polarization)

GDD Specification:
-1000fs^2 @ 1010 - 1050nm (5° AOI, p-polarization)

Wavelength Range (nm):
1010 - 1050

Irregularity (P-V) @ 632.8nm:
λ/10

Coating Type:
Dielectric

Coating:
Highly Dispersive (1010-1050nm)

Design Wavelength DWL (nm):
1030

Angle of Incidence (°):
5

Substrate:
Fused Silica (Corning 7980)

Damage Threshold, Reference:
>0.3 J/cm^2 for 1 ps @ 5 kHz rep rate @ 1030nm

Regulatory Compliance

RoHS 2015:
Compliant

Certificate of Conformance:
View

Reach 235:
Compliant

Need different specs or modifications?

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.

Product Details

- Ultrafast Highly-Dispersive Coating with Reduced Thermal Lensing
- Highly Negative GDD up to -1000 fs^2 at 5° AOI
- >99.5% Minimum Reflection (P-Polarization) across 50nm Bandwidth
- Ideal for the Generation of High-Power Ultrafast Laser Pulses

UltraFast Innovations (UFI) 1030nm Highly-Dispersive Ultrafast Mirrors with Reduced Thermal Lensing provide a GDD of -1000fs2 and low loss with negligible thermal effects. Thermal lensing can occur if an active gain medium is hotter along the beam axis than the rest of the medium, resulting in a transverse refractive index gradient. This can misalign the laser cavity and lead to different laser mode profiles and drifts in beam pointing. These mirrors are designed to provide a high degree of control over beam stability and feature reflectance >99.5% (P-polarization) between 1010 - 1050nm. At a design angle of incidence (AOI) of 5°, these mirrors maximize the number of reflections between a pair of ultrafast mirrors and allow for pulse compression while limiting thermal lensing. UltraFast Innovations (UFI) 1030nm Highly-Dispersive Ultrafast Mirrors with Reduced Thermal Lensing are ideal for intra-cavity applications, ultrafast high energy oscillators, and amplifiers such as Yb:YAG thin-disk laser systems. Please contact us if your laser system requires a custom size, wavelength, or pulse profile.

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