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# 12.7mm Dia. 5°, 1030nm Highly-Dispersive Broadband Ultrafast Mirror

See More by UltraFast Innovations (UFI)

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## General

**Type:**
Laser Mirror

**Typical Applications:**
Yb:doped 1st Harmonic

**Model Number:**
HD120

## Physical & Mechanical Properties

**Wedge Angle (arcmin):**
10 ±5

**Clear Aperture (%):**
80

**Back Surface:**
Commercial Polish

**Diameter (mm):**
12.70 +0.0/-0.1

**Thickness (mm):**
6.35 ±0.2

## Optical Properties

**Reflection at DWL (%):**
99.9 (typical, p-polarization)

**Coating Specification:**
$R_{avg}$ >99.8%, GDD = -200 $fs^2$ @ 950 - 1120nm (p-polarization)
$R_{abs}$ >99.9% @ 1030nm (typical, p-polarization)

**GDD Specification:**
-200$fs^2$ @ 950 -1120nm

**Wavelength Range (nm):**
950 - 1120

**Irregularity (P-V) @ 632.8nm:**
λ/10

**Coating Type:**
Dielectric

**Coating:**
Ultrafast (950-1120nm)

**Design Wavelength DWL (nm):**
1030

**Angle of Incidence (°):**
5

**Substrate:**
Fused Silica (Corning 7980)

**Damage Threshold, Reference:**
>0.1 J/$cm^2$ for 190 fs @ 1 kHz rep rate @ 1030nm

## Regulatory Compliance

**RoHS 2015:**
Compliant

**Certificate of Conformance:**
View

**Reach 235:**
Compliant

**Country of Origin:**
Germany

**Imported By:**
Edmund Optics India Private Limited

## 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.

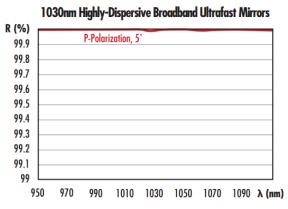
# Product Details

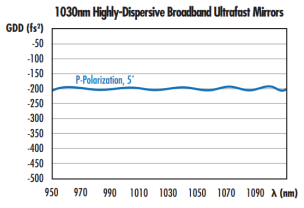
- Negative GDD of -200 $fs^2$ at 5° AOI
- >99.8% Reflection (p-polarization) between 950 - 1120nm
- Designed for Pulse Compression of Yb:doped Fiber Lasers
- Broadband Ultrafast Chirped Coating

UltraFast Innovations (UFI) 1030nm Highly-Dispersive Broadband Ultrafast Mirrors are used for pulse compression and dispersion compensation of near infrared (NIR) ultrafast pulses, such as from Yb:doped fiber lasers. These mirrors provide a minimum reflectance of 99.8% within their wavelength range and a typical reflectance of >99.9% at their design wavelength of 1030nm. Their multilayer chirped ultrafast coating is optimized to provide dispersive optical interference as well as a negative group delay dispersion (GDD) of -200$fs^2$ across their broad wavelength range. UFI 1030nm Highly-Dispersive Broadband Ultrafast Mirrors are designed to provide a high degree of control over beam stability, as well as control of third and higher-order dispersions. The 5° angle of incidence is ideal for maximizing the number of reflections between a pair of ultrafast mirrors in tight spaces, such as intra-cavity applications.

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




# Compatible Mounts

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