

Lightpath 7100331 | 5.3mm FL, f/1.3, Thermal Imaging Lens Assembly

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1

+

S\$243⁰⁰

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General	
Thickness: 0.70mm Material: Si	Compatible Window:
7100331	Lightpath Lens Code:

Physical & Mechanical Properties	
4.28	Clear Aperture CA (mm):
Matte Black Anodized Aluminum Housing	Construction:

Length (mm):	
7.25	
Front Diameter (mm):	
12.00	
Optical Properties	
Effective Focal Length EFL (mm):	
5.30	
Substrate: ☐	
Black Diamond™ BD-6	
f/#:	
1.3	
Coating:	
BBAR (8000-12000nm)	
Wavelength Range (nm):	
8000 - 12000	
Coating Specification:	
R _{avg} <0.75% @ 8000 - 12,000nm	
Index of Refraction (n _d) @ 10μm:	
2.7816	
Index of Refraction (n _d) @ 14μm:	
2.7683	
Index of Refraction (n _d) @ 4μm:	
2.7978	
Working Distance (mm):	
7.30	

Sensor	
Recommended Detector Format (H x V/Pixel Size):	
320 x 240 / 12μm	

Threading & Mounting	
Mounting Threads:	
M12 x 0.5	
Thread Length (mm):	
3.75	

Material Properties	
Coefficient of Thermal Expansion CTE (10 ⁻⁶ /°C):	
22.5	
Thermo-optic coefficient dn/dT:	
30.5 x 10 ⁻⁶ @ 10μm	

Regulatory Compliance	
RoHS 2015:	
Compliant	
Certificate of Conformance:	
View	
Reach 247:	
Compliant	

Product Details

- Precision Molded Chalcogenide Lenses
- Compact Designs for Thermal Imaging Cameras
- Focal Lengths from 2.7 to 24mm

Lightpath® Thermal Imaging Assemblies are a cost-effective alternative to diamond turned infrared lenses for applications in the mid-wave infrared (MMIR) or long-wave infrared (LWIR). These lenses are molded from BD6™, a chalcogenide glass that offers high transmission from 1 to 15μm and is also optically athermalized from -40 to +85°C. These lenses feature a broadband antireflection coating from 8 to 12μm and are mounted in compact black anodized aluminum housings that are threaded to allow for adjustable focus. Lightpath Thermal Imaging Assemblies are ideal for medical diagnostics, gas sensing, thermography, thermal imaging, security, and manufacturing process control applications. Lenses with focal lengths from 2.7 to 24mm are available, covering detector sizes from 80 x 80 to 640 x 480 pixels.