

TECHSPEC® 50mm Dia x 50mm FL, SWIR+, High Precision Aspheric Lens



TECHSPEC® High Precision Aspheric Lenses

Stock **#22-902** **2 In Stock**

☐ [Other Coating Options](#)

-

1

+

A\$1,758<sup>40</sup>

ADD TO CART

| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-5        | A\$1,758.40 each              |
| Qty 6-10       | A\$1,582.40 each              |
| Qty 11+        | A\$1,476.80 each              |
| Need More?     | <a href="#">Request Quote</a> |

Product Downloads

General

Aspheric Lens

Type:

3D Surface Profile not included with coated lenses

Note:

Physical & Mechanical Properties

Diameter (mm):

|                           |                      |
|---------------------------|----------------------|
| 50.00 +0.00/-0.025        |                      |
| Centering (arcmin):       | <1                   |
| Clear Aperture CA (mm):   | 45.00                |
| Edge Thickness ET (mm):   | 4.82                 |
| Center Thickness CT (mm): | 13.06                |
| Bevel:                    | Protective as needed |
| Shape of Back Surface:    | Plano                |

Optical Properties

|                                                                                              |                                                                                                      |
|----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| Effective Focal Length EFL (mm):                                                             | 50.00 @ 587.6nm                                                                                      |
| Numerical Aperture NA:                                                                       | 0.50                                                                                                 |
| Back Focal Length BFL (mm):                                                                  | 42.77                                                                                                |
| Substrate:  |                                                                                                      |
| Aspheric Design Wavelength (nm):                                                             | 587.6                                                                                                |
| Asphere Figure Error, RMS @ 632.8nm:                                                         | $\lambda$ /40                                                                                        |
| Coating:                                                                                     | SWR+ (900-1700nm)                                                                                    |
| Coating Specification:                                                                       | R <sub>avg</sub> <0.5% @ 900 - 1700nm @ ±30° AOI<br>R <sub>abs</sub> <1.5% @ 900 - 1700nm @ ±30° AOI |
| Surface Quality:                                                                             | 40-20                                                                                                |
| f/#:                                                                                         | 1                                                                                                    |
| Wavelength Range (nm):                                                                       | 900 - 1700                                                                                           |
| Conjugate Distance:                                                                          | Infinite                                                                                             |
| Power (diopters):                                                                            | 20.00                                                                                                |

Regulatory Compliance

|                             |           |
|-----------------------------|-----------|
| RoHS 2015:                  | Compliant |
| Certificate of Conformance: | View      |
| Reach 250:                  | Compliant |

## Product Details

- High Precision Aspheric Surface
- 3D Surface Profiles Included with Uncoated Lenses
- Uncoated and <0.25% Reflectance V-Coat Available

TECHSPEC® High Precision Aspheric Lenses guarantee better than  $\lambda$ /40 wave aspheric figure error. Achieved via precision magneto-rheological finishing (MRF), these aspheres offer high numerical apertures with diameters ranging from 15 to 50mm and are ideal for a variety of imaging and low light level applications. Each TECHSPEC High Precision Aspheric Lens is individually measured. 3D surface profiles are included with uncoated lenses. For diffraction-limited aspheres designed at specific Nd:YAG laser wavelengths, see our [TECHSPEC High Precision Laser Grade Aspheric Lenses](#).

## 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](#).