

TECHSPEC<sup>®</sup> 50.0mm Dia. x 150.0mm FL, NIR II Coated, Plano-Convex Lens



Stock **#67-585** 14 In Stock

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+

S\$98<sup>.00</sup>

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| Qty 1-9        | S\$98.00 each                 |
| Qty 10-24      | S\$88.90 each                 |
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General

Type:  
Plano-Convex Lens

Physical & Mechanical Properties

Diameter (mm):  
50.00 +0.0/-0.025

|                      |                           |
|----------------------|---------------------------|
| <1                   | Centering (arcmin):       |
| 9.00 ±0.10           | Center Thickness CT (mm): |
| 4.86                 | Edge Thickness ET (mm):   |
| 49                   | Clear Aperture CA (mm):   |
| Protective as needed | Bevel:                    |

Optical Properties

|                                                                                                                        |                                                       |
|------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
| 150.00 @587.6nm                                                                                                        | Effective Focal Length EFL (mm):                      |
| 144.07                                                                                                                 | Back Focal Length BFL (mm):                           |
| NIR II (750-1550nm)                                                                                                    | Coating:                                              |
| R <sub>abs</sub> ≤1.5% @ 750 - 800nm<br>R <sub>abs</sub> ≤1.0% @ 800 - 1550nm<br>R <sub>avg</sub> ≤0.7% @ 750 - 1550nm | Coating Specification:                                |
| N-BK7                                                                                                                  | Substrate: <input type="checkbox"/>                   |
| 40-20                                                                                                                  | Surface Quality:                                      |
| 1.5λ                                                                                                                   | Power (P-V) @ 632.8nm:                                |
| λ/4                                                                                                                    | Irregularity (P-V) @ 632.8nm:                         |
| ±1                                                                                                                     | Focal Length Tolerance (%):                           |
| 77.52                                                                                                                  | Radius R <sub>1</sub> (mm):                           |
| 3                                                                                                                      | f/#:                                                  |
| 0.17                                                                                                                   | Numerical Aperture NA:                                |
| 750 - 1550                                                                                                             | Wavelength Range (nm):                                |
| 8 J/cm <sup>2</sup> @ 1064nm, 10ns                                                                                     | Damage Threshold, Reference: <input type="checkbox"/> |

Regulatory Compliance

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

## Product Details

- AR Coated to Provide <0.7% Reflectance per Surface for 750 - 1550nm
- Designed for 0° Angle of Incidence
- Various PCX Coating Options: [Uncoated](#), [MgF<sub>2</sub>](#), [VIS 0°](#), [VIS-NIR](#), [NIR I](#), [VIS-EXT](#), and [YAG-BBAR](#)

TECHSPEC® NIR II Coated Plano-Convex Lenses have a positive focal length, making them ideal for collecting and focusing light in imaging applications. They are also useful in a variety of applications involving emitters, detectors, lasers, and fiber optics. TECHSPEC® NIR II Coated Plano-Convex Lenses are available in a wide variety of diameters and focal lengths. Identical designs of these PCX lenses are also offered [uncoated](#) or with broadband anti-reflective (BBAR) coatings, which include [MgF<sub>2</sub>](#), [VIS 0°](#), [VIS-NIR](#), [NIR I](#), [VIS-EXT](#), and [YAG-BBAR](#).

## Technical Information



N-BK7

### Uncoated N-BK7 Typical Transmission



Typical transmission of a 3mm thick, uncoated N-BK7 window across the UV - NIR spectra.

[Click Here to Download Data](#)

### N-BK7 with MgF<sub>2</sub> Coating Typical Transmission



Typical transmission of a 3mm thick N-BK7 window with MgF<sub>2</sub> (400-700nm) coating at 0° AOI.

The blue shaded region indicates the coating design wavelength range, with the following specification:

$$R_{avg} \leq 1.75\% @ 400 - 700\text{nm (N-BK7)}$$

Data outside this range is not guaranteed and is for reference only.

[Click Here to Download Data](#)

### N-BK7 with VIS-EXT Coating Typical Transmission



Typical transmission of a 3mm thick N-BK7 window with VIS-EXT (350-700nm) coating at 0° AOI.

The blue shaded region indicates the coating design wavelength range, with the following specification:

$$R_{avg} \leq 0.5\% @ 350 - 700\text{nm}$$

Data outside this range is not guaranteed and is for reference only.

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### N-BK7 with VIS-NIR Coating Typical Transmission



Typical transmission of a 3mm thick N-BK7 window with VIS-NIR (400-1000nm) coating at 0° AOI.

The blue shaded region indicates the coating design wavelength range, with the following specification:

$$\begin{aligned} R_{abs} &\leq 0.25\% @ 880\text{nm} \\ R_{avg} &\leq 1.25\% @ 400 - 870\text{nm} \\ R_{avg} &\leq 1.25\% @ 890 - 1000\text{nm} \end{aligned}$$

Data outside this range is not guaranteed and is for reference only.

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provide flexible solutions to meet your needs. Our experienced engineers are here to assist—from concept to completion.

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- Custom dimensions, materials, coatings, and more
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- Scalable production—from prototype to volume

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## Compatible Mounts

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