

TECHSPEC<sup>®</sup> 2.0mm Dia. x 4.0mm FL, NIR II Coated, Plano-Convex Lens



Stock **#67-433** 12 In Stock

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-

1

+

C\$122<sup>.50</sup>

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| Qty 1-9        | C\$122.50 each                |
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General

Type:  
Plano-Convex Lens

Physical & Mechanical Properties

Diameter (mm):  
2.00 +0.0/-0.025

|                           |                      |
|---------------------------|----------------------|
| Centering (arcmin):       | 30-45, typical       |
| Center Thickness CT (mm): | 0.80 ±0.05           |
| Edge Thickness ET (mm):   | 0.65                 |
| Clear Aperture CA (mm):   | 1.5                  |
| Bevel:                    | Protective as needed |

|                                                       |                                                                                                                        |
|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| Optical Properties                                    |                                                                                                                        |
| Effective Focal Length EFL (mm):                      | 4.00 @ 587.6nm                                                                                                         |
| Back Focal Length BFL (mm):                           | 3.57                                                                                                                   |
| Coating:                                              | NIR II (750-1550nm)                                                                                                    |
| Coating Specification:                                | 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 |
| Substrate: <input type="checkbox"/>                   | N-LASF9                                                                                                                |
| Surface Quality:                                      | 20-10                                                                                                                  |
| Power (P-V) @ 632.8nm:                                | 1.5λ                                                                                                                   |
| Irregularity (P-V) @ 632.8nm:                         | λ/4                                                                                                                    |
| Focal Length Tolerance (%):                           | ±1                                                                                                                     |
| Radius R <sub>i</sub> (mm):                           | 3.40                                                                                                                   |
| f/#:                                                  | 2                                                                                                                      |
| Numerical Aperture NA:                                | 0.25                                                                                                                   |
| Wavelength Range (nm):                                | 750 - 1550                                                                                                             |
| Damage Threshold, By Design: <input type="checkbox"/> | 8 J/cm <sup>2</sup> @ 1064nm, 10ns                                                                                     |

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

## 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.

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### 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.

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### 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:

$R_{abs} \leq 0.25\% @ 880\text{nm}$

$R_{avg} \leq 1.25\% @ 400 - 870\text{nm}$

$R_{avg} \leq 1.25\% @ 890 - 1000\text{nm}$

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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