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**TECHSPEC®**

50.0mm Dia. x 2.0mm Thick

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Select Your Country/Region: European Union

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Stock #67-587-INK [CONTACT US](#) [Other Coating Options](#)

1 €80<sup>,50</sup>

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Volume Pricing

Qty 1-9 €80,50 each

Qty 10-24 €72,50 each

Qty 25-49 €64,50 each

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Prices shown are exclusive of VAT/local taxes

Product Downloads

- STEP:stp
- Curve:pdf
- PDF Drawing:pdf
- ISO 10110 Drawing
- IGES:igs
- Curve (xlsx):xlsx
- Zemax:zar
- Zemax:zmx
- eDrawing:eprt
- Code V:seq
- EO Spec Sheet

General

Type: Plano-Convex Lens

Physical & Mechanical Properties

Diameter (mm): 50.00 ±0.025

Centering (arcmin): <1

Center Thickness CT (mm): 5.07 ±0.10

Edge Thickness ET (mm): 2.00

Clear Aperture CA (mm): 49

Bevel: Protective as needed

Optical Properties

Effective Focal Length EFL (mm): 200.00 @ 587.6nm

Back Focal Length BFL (mm): 196.66

Coating: NIR II (750-1550nm)

Coating Specification: R<sub>abs</sub> ≤1.5% @ 750 - 800nm  
R<sub>abs</sub> ≤1.0% @ 800 - 1550nm  
R<sub>avg</sub> ≤0.7% @ 750 - 1550nm

Substrate: [N-BK7](#)

Surface Quality: 40-20

Power (P-V) @ 632.8nm: 1.5λ

Irregularity (P-V) @ 632.8nm: λ/4

Focal Length Tolerance (%): ±1

Radius R<sub>1</sub> (mm): 103.36

f/#: 4

Numerical Aperture NA: 0.13

Wavelength Range (nm): 750 - 1550

Damage Threshold: 8 J/cm<sup>2</sup> @ 1064nm, 10ns

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### Regulatory Compliance

Certificate of Conformance: [View](#)

## Need different specs or modifications?

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](#).

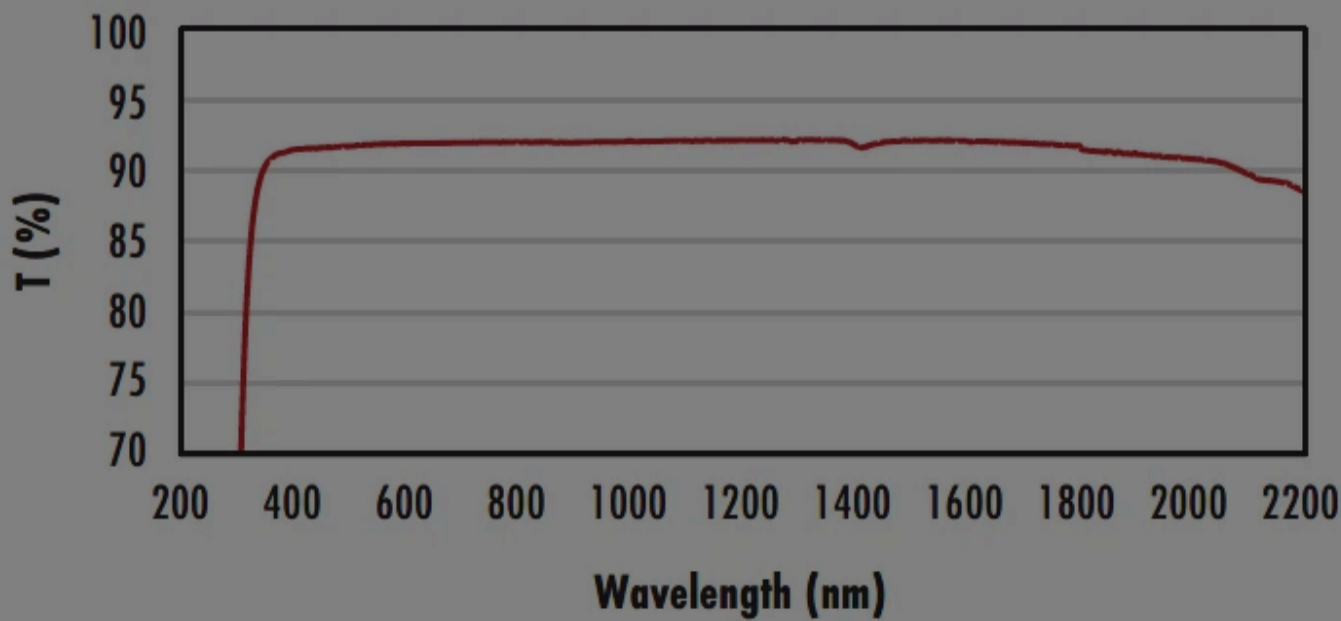
## Product Details

- 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

### 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



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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:

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

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:

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

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:

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

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

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### N-BK7 with VIS 0° Coating Typical Transmission



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Typical transmission of a 3mm thick N-BK7 window with VIS 0° (425-675nm) coating at 0° AOI.

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

$$R_{avg} \leq 0.4\% \text{ @ } 425 - 675\text{nm}$$

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

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### N-BK7 with YAG-BBAR Coating Typical Transmission



Typical transmission of a 3mm thick N-BK7 window with YAG-BBAR (500-1100nm) coating at 0° AOI.

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

$$R_{abs} \leq 0.25\% \text{ @ } 532\text{nm}$$

$$R_{abs} \leq 0.25\% \text{ @ } 1064\text{nm}$$

$$R_{avg} \leq 1.0\% \text{ @ } 500 - 1100\text{nm}$$

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

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



Typical transmission of a 3mm thick N-BK7 window with NIR I (600 - 1050nm) coating at 0° AOI.

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

$$R_{avg} \leq 0.5\% \text{ @ } 600 - 1050\text{nm}$$

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

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## N-BK7 with NIR II Coating Typical Transmission



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Typical transmission of a 3mm thick N-BK7 window with NIR II (750 - 1550nm) coating at 0° AOI.

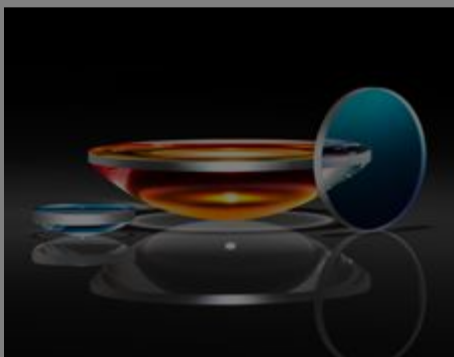
The blue shaded region indicates the coating design wavelength range, with the following specification:

- $R_{abs} \leq 1.5\%$  @ 750 - 800nm
- $R_{abs} \leq 1.0\%$  @ 800 - 1550nm
- $R_{avg} \leq 0.7\%$  @ 750 - 1550nm

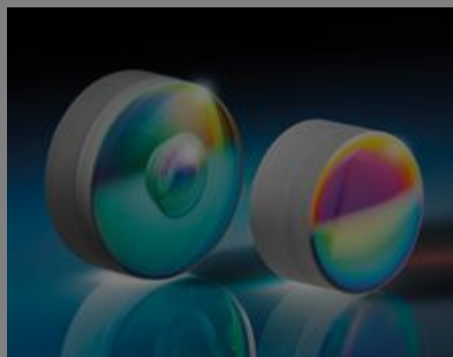
Data outside this range is not guaranteed and is for reference only.

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## Related Products



UV Fused Silica Plano-Convex (PCX) Lenses - NIR II Coated



Near-IR (NIR) Achromatic Lenses

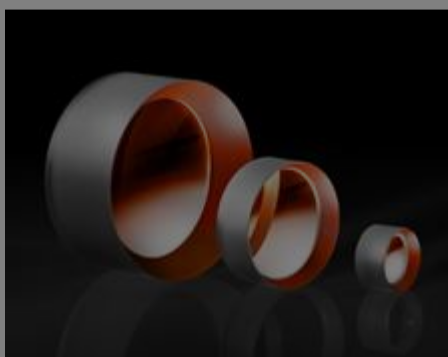


NIR II Coated Double-Convex (DCX) Lenses



Optical Cleaning

## Frequently Purchased Together













#45-422 - 25mm Dia x -75mm  
FL Negative Doublet Lens  
MgF<sub>2</sub> Coated  
€125,00

Qty

## Compatible Mounts

	Title	Type	Compare	Stock Number	Price	Buy
<a href="#">MORE+</a>	50.0/50.8mm Optic Dia., SM2 Thin Mount	Fixed		#17-716	€36,25 <a href="#">Request Quote</a>	20+ In Stock <input type="text" value="1"/>

	Title	Type	Compare	Stock Number	Price	Buy
<a href="#">MORE+</a>	 50.0mm Optic Dia. Optic Mount				€49,25	2 In Stock <input type="text" value="1"/> 
<a href="#">MORE+</a>	 50.0mm Optic Dia. Optic Mount					8 In Stock <input type="text" value="1"/> 
<a href="#">MORE+</a>	 50.0/50.8mm Optic Dia., X-Y Translating Optic Mount	Adjustable - Linear (XY)		#62-957	€308,00 <a href="#">Request Quote</a>	3 In Stock <input type="text" value="1"/> 
<a href="#">MORE+</a>	 50.0/50.8mm Optic Dia., X-Y-Z Translating Optic Mount	Adjustable - Linear (XYZ)		#62-960	€605,00 <a href="#">Request Quote</a>	20+ In Stock <input type="text" value="1"/> 
<a href="#">MORE+</a>	 50.0/50.8mm Optic Dia., 5 Axes Optical Mount	Adjustable - Linear (XYZ) & Tip-Tilt		#13-778	€840,00 <a href="#">Request Quote</a>	10 In Stock <input type="text" value="1"/> 

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Check out our full selection of mounts [here](#).

## Resources

### Media Type

- Application Note
- Glossary
- Technical Tool
- Video
- FAQ
- Trending in Optics

**APPLICATION NOTE**

**Anti-Reflection (AR) Coatings**

**APPLICATION NOTE**

**An Introduction to Optical Coatings**

**APPLICATION NOTE**

**Understanding Optical Specifications**

**APPLICATION NOTE**

**Lens Geometry Performance Comparison**

**GLOSSARY**

**NIR (Near Infrared)**

**GLOSSARY**

**VIS/NIR Coating**

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