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TECHSPEC®

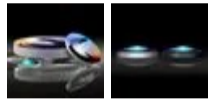
50.0mm Dia. x 200.0mm FL, YAG-BBAR Coated Plano-Convex Lens


 Stock #88-924 **1 In Stock** [Other Coating Options](#)

- 1 +

 C\$109^{.20}
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YAG-BBAR Coated Plano-Convex (PCX) Lenses



Volume Pricing	
Qty 1-9	C\$109.20 each
Qty 10-24	C\$98.00 each
Qty 25-49	C\$87.50 each
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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	Download All

General

Type: Plano-Convex Lens

Physical & Mechanical Properties

Diameter (mm): 50.00 +0.0/-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: YAG-BBAR (500-1100nm)	Coating Specification: R _{abs} <0.25% @ 532nm R _{abs} <0.25% @ 1064nm R _{avg} <1.0% @ 500 - 1100nm
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 R₁ (mm): 103.36

f/#: 4	Numerical Aperture NA: 0.13
Wavelength Range (nm): 500 - 1100	Damage Threshold, By Design: 5 J/cm ² @ 532nm, 10ns

Regulatory Compliance

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

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](#).

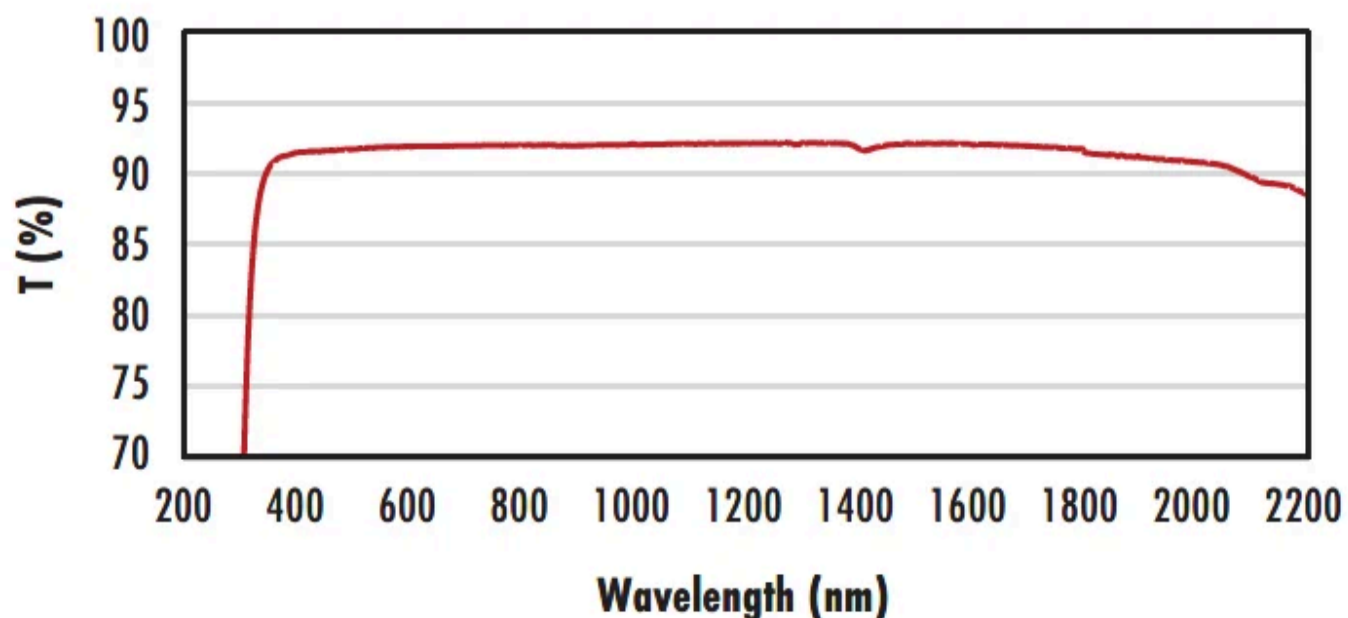
Product Details

- Optimized for R<0.25% @ Both 532nm and 1064nm
- AR Coated to Provide <1.0% Reflectance per Surface for 500 - 1100nm
- Designed for 0° Angle of Incidence
- Various PCX Coating Options: **Uncoated**, **MgF₂**, **VIS 0°**, **VIS-NIR**, **NIR I**, **NIR II**, and **VIS-EXT**

TECHSPEC® YAG-BBAR Coated Plano-Convex (PCX) 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® YAG-BBAR Coated Plano-Convex (PCX) 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 **MgF₂**, **VIS 0°**, **VIS-NIR**, **NIR I**, **NIR II**, and **VIS-EXT**.

Technical Information

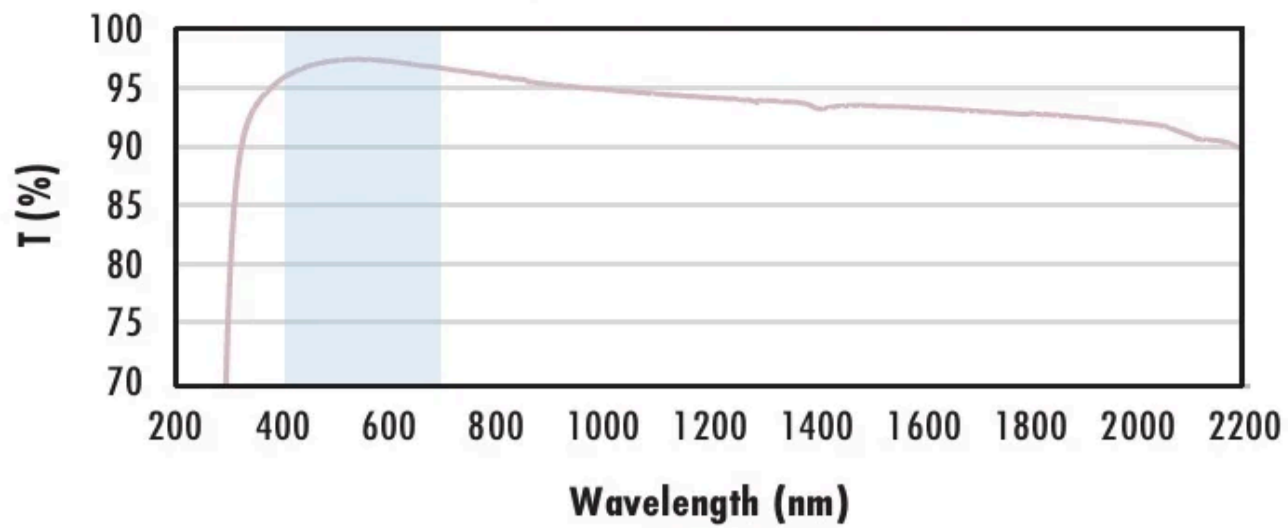
Uncoated N-BK7 Typical Transmission



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

[Click Here to Download Data](#)

N-BK7 with MgF₂ Coating Typical Transmission



Typical transmission of a 3mm thick N-BK7 window w MgF₂ (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 w 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 w 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



Typical transmission of a 3mm thick N-BK7 window with 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 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



Typical transmission of a 3mm thick N-BK7 window with 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

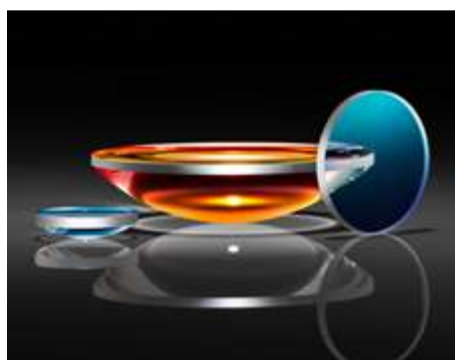
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Related Products



Optical Lenses



UV Fused Silica Plano-Convex (PCX) Lenses - YAG-BBAR Coated



Laser Lenses



YAG-BBAR Coated Double-Convex (DCX) Lenses

Frequently Purchased Together



#03-676 - 7.0 - 40.0 Optic Height, English Bar-Type Optic Holder
C\$148.40

Qty



#34-150 - 50mm Dia. x 200mm FL 1064nm V-Coat, Fused Silica PCX Lens
C\$467.60

Qty



#34-151 - 50mm Dia. x 250mm FL 1064nm V-Coat, Fused Silica PCX Lens
C\$467.60

Qty













#49-539 - 50.0mm Diameter x -125 FL, NIR I Coated, Plano-Concave Lens
C\$104.30

Qty



Compatible Mounts

	Title	Type	Compare	Stock Number	Price	Buy
MORE+	50.0/50.8mm Optic Dia., SM2 Thin Mount	Fixed		#17-716	C\$50.75 Request Quote	20+ In Stock <input type="text" value="1"/>

	Title	Type	Compare	Stock Number	Price	Buy
MORE+ 	50.0mm Optic Dia., Optic Mount	Fixed		#64-567	C\$68.95 Request Quote	2 In Stock <input type="text" value="1"/> 
MORE+ 	50.0mm Optic Dia., Optic Mount	Fixed		#64-568	C\$68.95 Request Quote	7 In Stock <input type="text" value="1"/> 
MORE+ 	50.0/50.8mm Optic Dia., X-Y Translating Optic Mount	Adjustable - Linear (XY)		#62-957	C\$431.20 Request Quote	1 In Stock <input type="text" value="1"/> 
MORE+ 	50.0/50.8mm Optic Dia., X-Y-Z Translating Optic Mount	Adjustable - Linear (XYZ)		#62-960	C\$847.00 Request Quote	20+ In Stock <input type="text" value="1"/> 
MORE+ 	50.0/50.8mm Optic Dia., 5 Axes Optical Mount	Adjustable - Linear (XYZ) & Tip-Tilt		#13-778	C\$1,176.00 Request Quote	10 In Stock <input type="text" value="1"/> 

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APPLICATION NOTE

An Introduction to Optical Coatings

APPLICATION NOTE

Understanding Optical Specifications

APPLICATION NOTE

Lens Geometry Performance Comparison

TECHNICAL TOOL

SAG Calculator

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