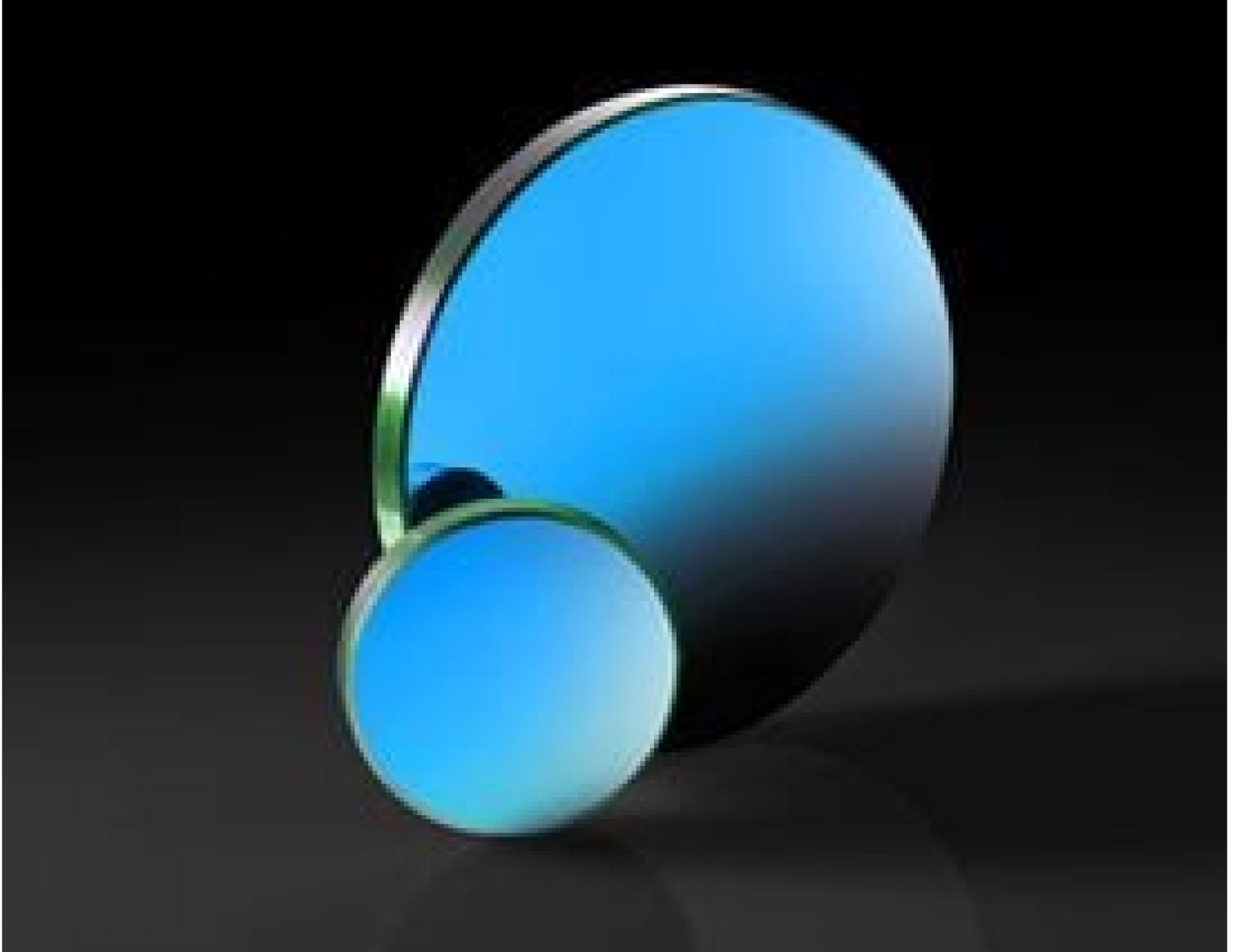# 12.7mm Dia. x 50.8mm FL, 3-5µm BBAR Coated, ISP Optics Silicon (Si) PCX Lens | HDAR35-SI-PX-12-50

See More by **ISP Optics**



Stock **#24-888** `CLEARANCE`    **1 In Stock**

⊖   1   ⊕    €213<sup>.00</sup>

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❶ Prices shown are exclusive of VAT/local taxes

## Product Downloads

## General

| | |
|---|---|
| **Type:** | |
| Plano-Convex Lens | |
| **Model Number:** | |
| HDAR35-SI-PX-12-50 | |

## Physical & Mechanical Properties

| | |
|---|---|
| **Diameter (mm):** | |

12.70 +0.00/-0.13

| | Centering (arcmin): |
|---|---|
| <3 | |

| | Center Thickness CT (mm): |
|---|---|
| 2.10 ±0.20 | |

| | Edge Thickness ET (mm): |
|---|---|
| 2.00 | |

| | Clear Aperture CA (mm): |
|---|---|
| 11.43 | |

| | Bevel: |
|---|---|
| Protective as needed | |

## Optical Properties

| | Effective Focal Length EFL (mm): |
|---|---|
| 50.80 @ 4µm | |

| | Coating: |
|---|---|
| BBAR (3000-5000nm) | |

| | Coating Specification: |
|---|---|
| $R_{avg}$ <0.5% @ 3 - 5µm $R_{abs}$ <1.5% @ 3 - 5µm | |

| | Substrate: □ |
|---|---|
| Silicon (Si) | |

| | Surface Quality: |
|---|---|
| 80-50 | |

| | Irregularity (P-V) @ 632.8nm: |
|---|---|
| 1λ | |

| | Focal Length Tolerance (%): |
|---|---|
| ±2 | |

| | Radius $R_1$ (mm): |
|---|---|
| 123.59 | |

| | f/#: |
|---|---|
| 4.00 | |

| | Numerical Aperture NA: |
|---|---|
| 0.13 | |

| | Wavelength Range (nm): |
|---|---|
| 3000 - 5000 | |

## Regulatory Compliance

| | RoHS 2015: |
|---|---|
| Compliant | |

| | Certificate of Conformance: |
|---|---|
| View | |

| | Reach 240: |
|---|---|
| Compliant | |

# Product Details

- High-Durability Anti-Reflection (HDAR) Coated for 3 - 5µm
- Ideal for Weight Sensitive Applications
- Available Focal Lengths from 25.4 – 500mm

ISP Optics Silicon (Si) Plano-Convex (PCX) Lenses feature a High Durability Anti-Reflection (HDAR) coating for increased transmission in the 3 - 5µm range. Silicon features a Knoop Hardness of 1150 making it harder and less brittle than Germanium. In addition, the HDAR coating increases the durability of the substrate, enabling use in harsh environments. ISP Optics Silicon (Si) Plano-Convex (PCX) Lenses also feature a low density of 2.329g/cm$^3$, making them ideal for weight-sensitive IR applications such as Near-Infrared (NIR) imaging and infrared spectroscopy.