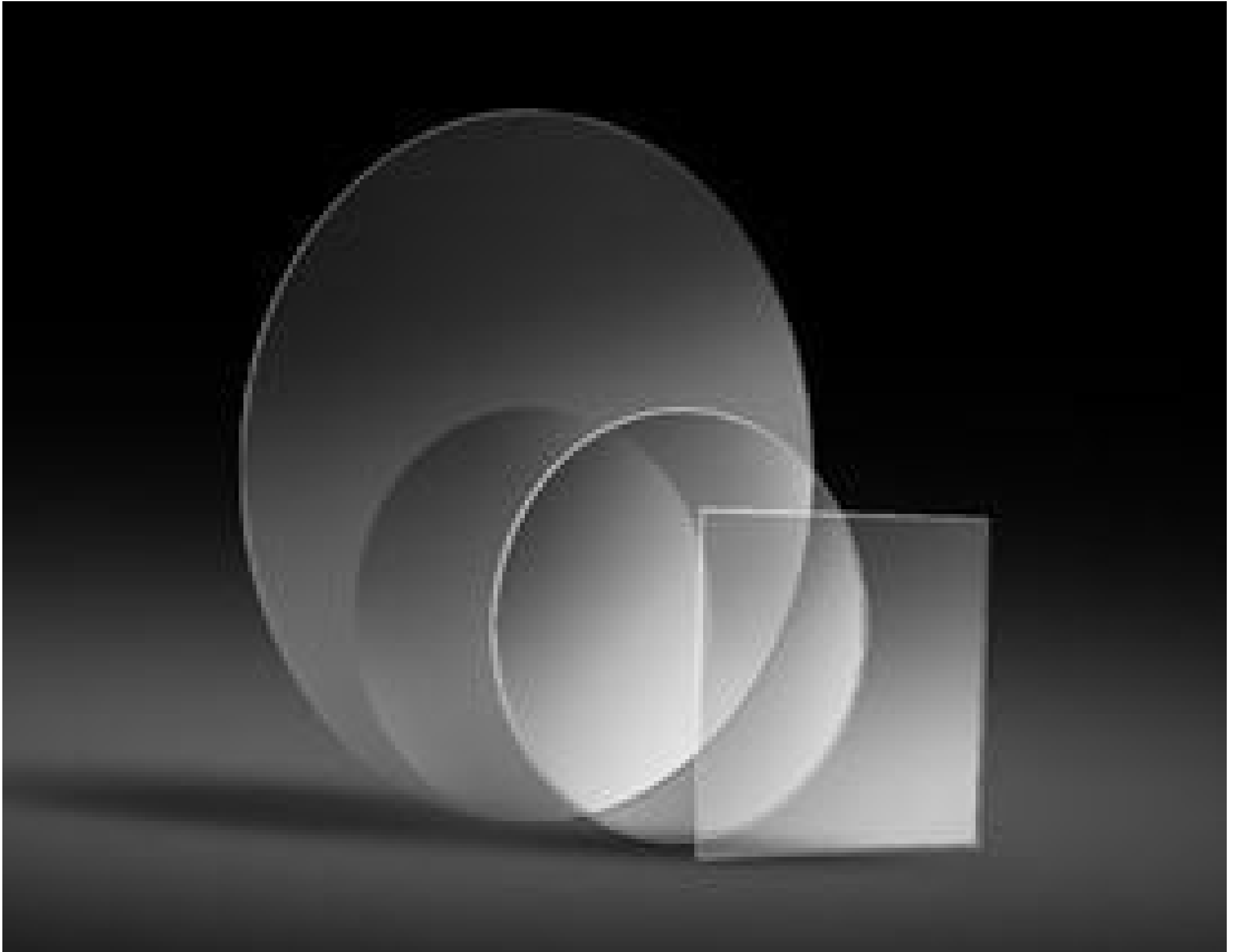


[See all 22 Products in Family](#)

Ultra-Thin Nanoparticle Polarizer, 500-550nm, 10 x 10mm, Double-Sided AR Coated



Ultra-Thin Polarizers; 10x10, 12.5mm Dia, and 25mm Dia.

Stock #90-255 NEW **2 In Stock**

⊖ 1 ⊕ **S\$649⁰⁰**

ADD TO CART

Volume Pricing	
Qty 1-10	S\$649.60 each
Qty 11+	S\$519.40 each
Need More?	Request Quote

Product Downloads

General

Linear Polarizer **Type:**

Physical & Mechanical Properties

9.00 **Clear Aperture CA (mm):**

10.00 x 10.00 +0/-0.1 **Dimensions (mm):**

Thickness (mm):

0.09 ± 0.025

Construction:

Nanoparticle

Clear Aperture (%):

90

Optical Properties

Coating:

Double-Side AR Coat

Extinction Ratio:

>10,000:1

Substrate:

Sodium Silicate Glass Doped with Glass Nanoparticles

Surface Quality:

40-20

Transmission (%):

>72

Transmitted Wavefront, P-V:

<3 wave

Polarization Axis Mark (%):

<0.5 (to indicated edge)

Wavelength Range (nm):

500 - 550

Damage Threshold, By Design:

Continuous block
Continuous pass
Pulse peak power
Equivalent pulse power density
10 W/cm²
25 W/cm²
12 MW/cm²
1 µJ/cm²

Acceptance Angle (°):

±20

Threading & Mounting

Mount Thickness (mm):

Unmounted

Environmental & Durability Factors

Operating Temperature (°C):

-50 to +400

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

- **NEW LOWER PRICE!**
- Lightweight 90µm Thick Substrate
- >10,000:1 Extinction Ratio
- Excellent Resistance to Temperature, Chemicals, and Harsh Environments
- Range of Standard Sizes, Coatings, and Custom Options Available

Ultra-Thin Nanoparticle Polarizers are a lightweight 90µm thick alternative to traditional polarizers while providing a high transmission and an extinction ratio of >10,000:1. Constructed from sodium silicate glass substrate doped with prolate silver nanoparticles, these polarizers provide high temperature stability up to +400°C, chemical resistance, and resistance to UV radiation and bleaching. These polarizers are available uncoated, Single-Side AR coated, or Double-Side AR coated and cover wavelength ranges from 366-1600nm. Ultra-Thin Nanoparticle Polarizers design are ideal for use in telecom, medical, and aerospace applications as well as in optical isolators, polarization interferometry, and improving signal-to-noise ratio.