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## 12.5 x 12.5mm Ultra Broadband Wire Grid Linear Polarizer



Unmounted Ultra Broadband Wire Grid Linear Polarizer

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⊖ 1 ⊕ **SS\$1,477<sup>00</sup>**

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### Product Downloads

### General

Linear Polarizer **Type:**

### Physical & Mechanical Properties

8.5x8.5 **Clear Aperture CA (mm):**

12.50 **Length (mm):**

**Dimensions (mm):**

12.5 x 12.5

Thickness (mm):

2.13 ±0.2

Dimensional Tolerance (mm):

±0.4

Construction:

Wire Grid

Alignment Tolerance (°):

±1.0

Width (mm):

12.50

### Optical Properties

Angle of Incidence (°):

±20 without depolarization

Extinction Ratio:

5000:1 @ 3200nm

Substrate:

Fused Silica (Corning 7980)

Surface Quality:

80-50

Transmission (%):

>80 (Typical) @ 450nm

Wavelength Range (nm):

300 - 3200

### Material Properties

Thermal Expansion:

$5.5 \times 10^{-7}/^{\circ}\text{C}$

### Environmental & Durability Factors

Operating Temperature (°C):

-40 to +200

### Regulatory Compliance

RoHS 2015:

Compliant

Reach 224:

Compliant

Certificate of Conformance:

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## Product Details

- Reflect S-Polarized Light
- Transmit P-Polarized Light
- Excellent Performance from UV to IR

Ultra Broadband Wire Grid Polarizers consist of a thin layer of aluminum MicroWires layered between two Fused Silica windows. Designed for multi-wavelength applications, these polarizers have excellent heat resistance and performance beginning in the UV and extending into the infrared (IR). The polarizers feature a fused silica substrate. Ultra Broadband Wire Grid Polarizers reflect S-polarized light and transmit P-polarized light. These polarizers are available in a variety of thicknesses and clear apertures, in either a 12.5, 25, or 50mm diameter.

**Note:** The input beam should be oriented towards the cover glass side, indicated by a reference mark which also indicates the direction of the transmission axis.

Wire Grid Polarizers are constructed by attaching MicroWires to the first window, and then applying a thin cover glass onto the wire grid surface to protect the wire from damage. The light is polarized by the birefringent nature of the wire grid surface. When incident light strikes the wire grid, P-polarized light contacts a dielectric and is transmitted, while S-polarized light contacts a mirror and is reflected.

## Technical Information

