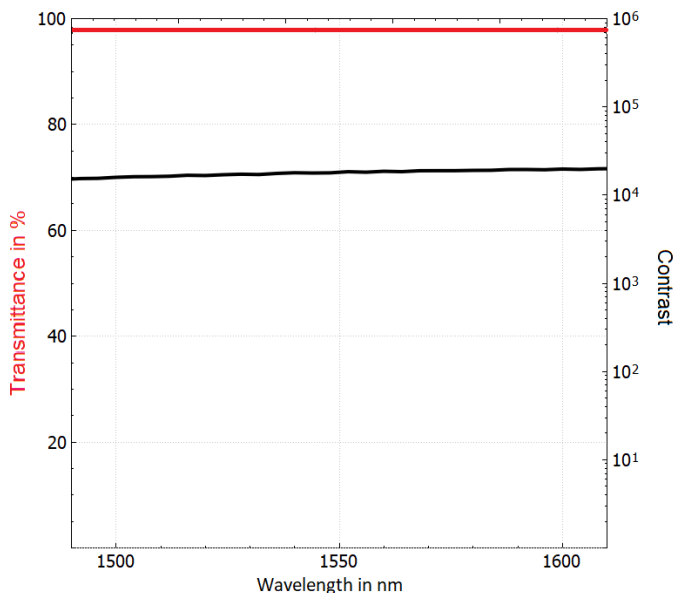


colorPol® IR 1550 AC4 T1 HT

Developed to match special needs of NIR applications between 1500 nm and 1600 nm. This polarizer utilizes dichroism of silver nanoparticles in glass to achieve superior contrast and durability.

Custom shapes, sizes and patterned structures are possible due to larger manufactured substrates. For assistance please contact your CODIXX Sales Engineer or one of the local distributors with your custom requirements.



Typical contrast (black) and transmittance with AR-coating C1550 (red)

Key Benefits

- Transmittance typically 98 % with antireflection (AR) coating
- Contrast ratio greater than 10,000 : 1
- Ideal for applications using the NIR wavelength ranges
- Customization
- Highly durable

Applications

- Free space isolators operating around 1550 nm
- Optical communication
- Optical switches
- NIR spectroscopy
- Polarization interferometry
- Signal-to-Noise-Ratio monitoring
- Polarization analysis, monitoring and control
- Polarization mode dispersion monitoring and measurement

Spectral range	NIR
Wavelength range with contrast > 10,000 : 1 ⁽¹⁾	1500 to 1600 nm
Transmittance uncoated with AR-coating C1550 with 1 side AR-coating CS1550	> 88 % > 96 % > 92 %
Filter thickness	90 ± 25 µm
Acceptance angle (coating reference for 0°)	± 20°
Accuracy of polarization axis to edge	< 0.5°
Usual surface quality (MIL-O-13830A: Scratch / Dig) ⁽²⁾	40 / 20
Operating temperature	-50 to +400 °C
Transmitted wavefront distortion at 633 nm over an inspection area of Ø10 mm	< 3 λ
Recommended safe operation limit Laser damage threshold Continuous block Continuous pass Pulse peak power Equivalent pulse power density	10 W/cm ² 25 W/cm ² 12 MW/cm ² 1 µJ/cm ²
⁽¹⁾ contrast: ratio of parallel to perpendicular transmittance ⁽²⁾ other specifications available on request	



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