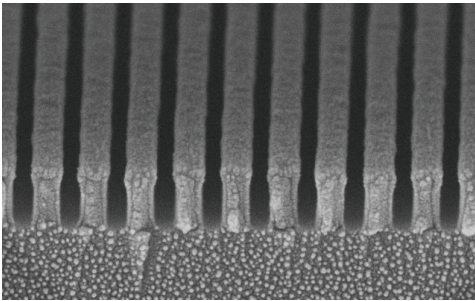




Absorptive Polarizers
(Mounting Optional)

Applications

- Projection displays
- Polarizing modulators
- Can be laminated with retarding films
- Polarization sensitive cameras



SEM image showing Aluminum rib structure.



Moxtek polarizers enable amazing brightness and contrast.



ProFlux® ABS series absorptive polarizers are optimized to absorb unwanted RGB light bands, reducing stray light and thermal loading caused by back reflections common in LCD projection displays. These inorganic polarizers are precision manufactured in high volumes using Moxtek's advanced NanoStack® nano technology and are ideal for applications including: high temperature projection displays, analytical systems, automotive, medical, research, and other applications. Our wire grid polarizers are available in various sizes and shapes in both bare glass or mounted forms.

Features	Benefits
Nanowire Technology	Brightness and contrast uniformity
	Nanoscale uniformity control
	>20° half angle without performance loss
	Wavelength and AOI independent
Inorganic	High durability
	High thermal resistance
	Long life compared to organic polarizer
Absorptive	Extremely low reflection
	Reduced thermal load to LCD panel

Substrate Specifications

Type: Display Grade Glass

Thickness: 0.7mm ± 0.07

Index of Refraction: 435.8nm: 1.5198

643.8nm: 1.5078

Thermal Expansion: $31.7 \times 10^{-7}/^{\circ}\text{C}$ (0-300°C)

General Specifications

Wavelength Range: 450nm, 550nm, 650nm, +/- 20 (see back page)

AR Coating: 420-700nm visible AR coating

Dimensional Tolerance: ± 0.2mm

Edge Exclusion: 2mm

Transmission Axis (TA): Referenced to long side of part

TA Tolerance: ± 1°

Angle of Incidence: 0° ± 20°

Maximum Temperature: 250°C > 5,000 hours

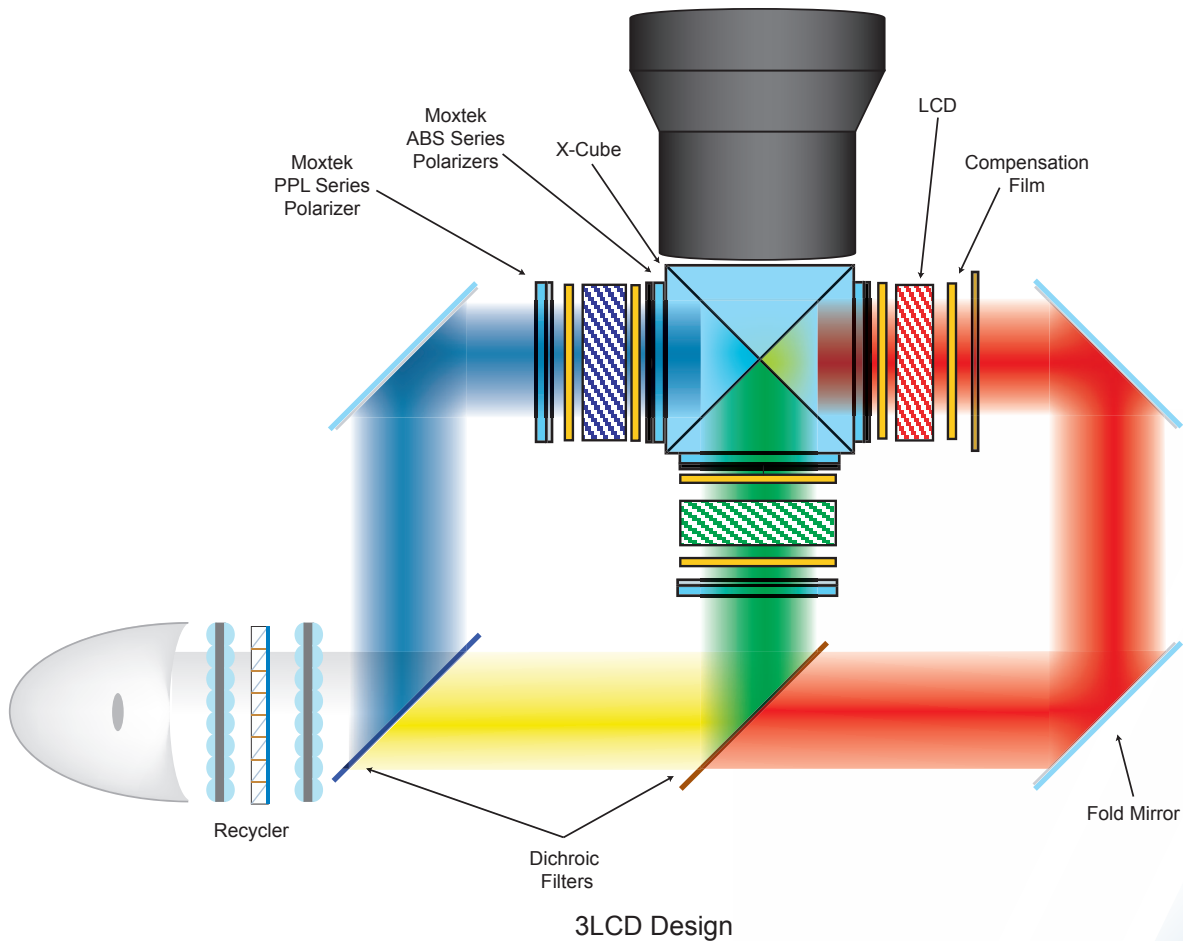
RoHS: Compliant

Performance and Specification

Product Type	Channel	Description	Tp% (min)	Ts% (max)	Rp% (max)	Rs% (max)
ABB06C	Blue (420-500nm)	High Transmission	91	1.0	6	10
ABB07C	Blue (420-500nm)	Balanced Trasmision/Contrast	89	0.3	6	10
ABB08C	Blue (420-500nm)	High Contrast	87	0.1	6	10
ABG06C	Green (500-590nm)	High Transmission	91.5	0.3	6	10
ABG08C	Green (500-590nm)	High Contrast	89	0.05	6	10
ABR06C	Red (610-680nm)	High Transmission	92	0.3	6	19
ABR08C	Red (610-680nm)	Balanced Trasmision/Contrast	89.5	0.05	6	19
ABR09C	Red (610-680nm)	High Contrast	87	0.03	6	19

Projection Display Application Design Example

Absorptive polarizers are channel specific (RGB) and designed for demanding applications that require high transmission, high contrast, and low Rs. See example below of a 3LCD projection application:



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 Subject to technical change without notice