



UBB Polarizers  
(mounting optional)

Ultra Broadband polarizers are designed to offer an excellent solution for almost any multi-wavelength application. The wide-band characteristics of this polarizer, enables a wide range of products and technologies. Performance begins at 300nm and works well throughout the visible and infrared range enabling its use in a wide variety of applications (see sidebar). With anhydrous Fused Silica substrate material, the performance will work well up to the 4µm wavelength.

As with all ProFlux® polarizers, the UBB series are capable of large acceptance angle which eases alignment concerns. Durability is similarly equivalent to all our ProFlux products recognized for their high durability in hot and environmentally difficult applications.

Moxtek's advanced manufacturing technology is able to manufacture precision polarizers in high volume quantities for spectroscopy, astronomy, communications, semiconductor, machine vision, and other applications.

### Applications

- FTIR Spectroscopy
- UV Curing, Exposure
- IR Imaging
- Forensics
- Communications
- Semiconductor
- Machine Vision
- Microscopy

### Standard Product Options

Product Name	Description
UBB01A	Broadband (300-3250nm)
UBB02A	High Transmission (400-1100nm)

See OPT-DATA-1011 for size and mounting options

Features	Benefits
Nanowire® Technology	Brightness and contrast uniformity
	±20° AOI without depolarization
	Wavelength and AOI independent
	Broadband
Inorganic	High heat resistant

### General Specifications

	UBB01A	UBB02A
<i>Wavelength Range:</i>	300 - > 3250nm	400 - 1100nm
<i>Substrate Type:</i>	Fused Silica	Display Grade Glass
<i>Thickness:</i>	1.0 ± 0.1mm	0.7 ± 0.07mm
<i>Index of Refraction:</i>	430nm: 1.4672	435.8nm: 1.5198
	1000nm: 1.4504	643.8nm: 1.5078
<i>Thermal Expansion:</i>	5.5 x 10 <sup>-7</sup> /°C	31.7 x 10 <sup>-7</sup> /°C (0-300°C)
<i>AOI (Angle of Incidence):</i>	0° ± 20°	0° ± 20°
<i>AR Coating:</i>	Not standard	Not standard
<i>Maximum Temperature:</i>	200° C > 5,000 hours	200° C > 5,000 hours
<i>Transmission Axis (TA):</i>	Referenced to long side of part	
<i>TA Tolerance:</i>	± 1°	± 1°
<i>Dimensional Tolerance:</i>	± 0.4mm	± 0.2mm
<i>Edge Exclusion:</i>	2mm	2mm
<i>RoHS:</i>	Compliant	Compliant

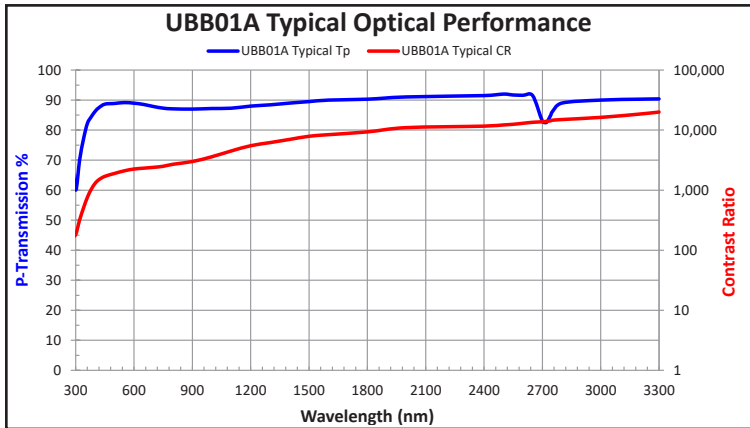
## Performance Specifications at Normal Incidence

Product	Range (nm)	300nm		400nm		450nm		550 nm		650nm		800nm		1100nm		2500nm	
		Tp% (min)	CR (min)	Tp% (min)	CR (min)	Tp% (min)	CR (min)	Tp% (min)	CR (min)	Tp% (min)	CR (min)	Tp% (min)	CR (min)	Tp% (min)	CR (min)	Tp% (min)	CR (min)
UBB01A	300-3200	50	30	Not Measured		82	600	83	650	81	650	79	700	82	800	82	800
UBB02A	400-1100	-	-	89	40	90	40	90	100	90	100	90	100	90	100	-	-

\*Not measured on all parts

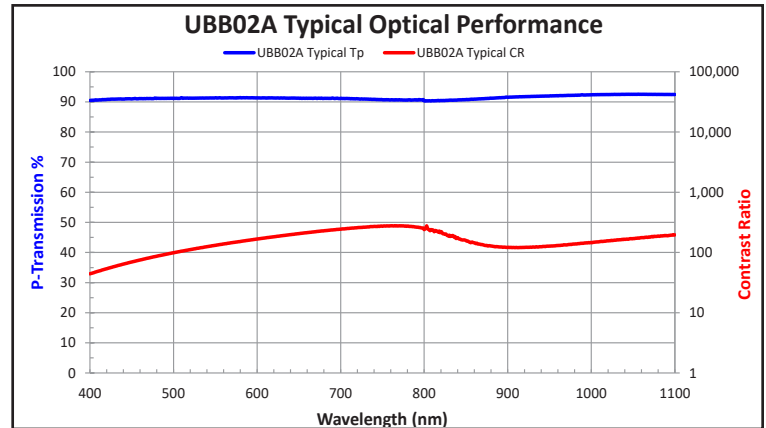
### UBB01A Typical Optical Performance

This graph shows typical optical performance of the UBB01A for 300-3200nm. Excellent transmission is maintained throughout the visible and well into the IR spectrum. Contrast continuously increases throughout this range.



### UBB02A Typical Optical Performance

The graph shows typical optical performance for the UBB02A for 400-1100nm. Extremely high transmission is maintained throughout the visible and well into the IR spectrum.



For warranty and ordering information, please visit [www.moxtek.com](http://www.moxtek.com).



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