

TECHSPEC® 6mm, f/1.85 UCi Series Fixed Focal Length Lens



6mm UCi Series Fixed Focal Length Lens



Stock **#33-862** 8 In Stock

-

1

+

S\$309⁰⁰

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Qty 1+	S\$309.00 each
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Product Downloads

General	
UCi Series	Series:
Fixed Focal Length Lens	Type:
No	IR Cut Filter:
High Performance Lens with Compact Form Factor	Imaging Lens Type:

and Fixed Aperture

Physical & Mechanical Properties

Fixed	Iris Option:
47.30	Length (mm):
30.5	Maximum Diameter (mm):
30.5	Outer Diameter (mm):
52	Weight (g):
0	Maximum Rear Protrusion (mm):

Optical Properties

Horizontal Field of View @ Max Sensor Format: 72.8mm - 60.0°	
Field of View at Max Sensor Format: Horizontal: 72.8mm - 60° Vertical: 52.7mm - 45.4° Diagonal: 95.5mm - 73.8°	
Horizontal Field of View, 1/2" Sensor: 72.8mm - 60.0°	
Horizontal Field of View, 1/2.5" Sensor: 65.0mm - 54.6°	
Horizontal Field of View, 1/3" Sensor: 52.7mm - 45.4°	
Horizontal Field of View, 1/4" Sensor: 38.7mm - 34.2°	
8.00	Maximum Image Circle (mm):
0.0254	Numerical Aperture NA, Object Side:
Number of Elements (Groups): 9 (8)	
6.00	Focal Length FL (mm):
Working Distance (mm): 50 - ∞	
f/1.85	Aperture (f/#):
Coating: λ/4 MgF ₂	
Coating Specification: λ/4 MgF ₂	
Entrance Pupil Position (mm): 12.61	
Object Space Principal Plane (mm): 17.55	
Image Space Principal Plane (mm): 4.85	
Maximum Distortion (%): -11.2	
Exit Pupil Position (mm): -23.26	
Lens Wavelength Range: VIS	

Sensor

1/2.5"	Optimized Sensor Format:
1/2"	Maximum Sensor Format:
Pixel Size (μm): 1.85	

Threading & Mounting

M30.5 x0.50 (Male)	Filter Thread:
S-Mount (M12 x0.5)	Mount:

Environmental & Durability Factors

	Storage Temperature (°C):
-20 to +60	
	Type of Ruggedization:
Industrial (Fixed Aperture with Simplified Mechanics)	

Regulatory Compliance

	Certificate of Conformance:
View	

Product Details

- Up to 1/1.8", C-Mount, S-Mount Lens
- Up to 12 MegaPixels, 1.85µm Pixel Size Sensors
- Instrumentation (UCi) versions of our UC Series Lenses with Streamlined Mechanical Designs and Fixed Apertures
- 4mm to 35mm Focal Length

TECHSPEC® UCi Series Fixed Focal Length Lenses utilize the same optics as the TECHSPEC UC Series Lenses and feature 4K resolution. These lenses are designed for small pixels ≤2.2µm and offer a wide range of fixed apertures for a variety of applications. While optimized for 1/2.5" sensors, many focal length options can be used on sensors up to 1/1.8". TECHSPEC® UCi Series Fixed Focal Length Lenses are ideal for OEM applications that require small, robust, and lightweight imaging solutions.

Note: For adjustable aperture options, see our [TECHSPEC® UC Series Fixed Focal Length Lenses](#).

Edmund Optics has created a family of high-performance ultra-compact optical designs (the UC Series family) and developed 3 customized optomechanical solutions targeted for specific applications. These lens sub-families utilize the same optics as the UC Series lenses providing the same optical performance in a variety of optomechanical solutions to meet your application requirements:

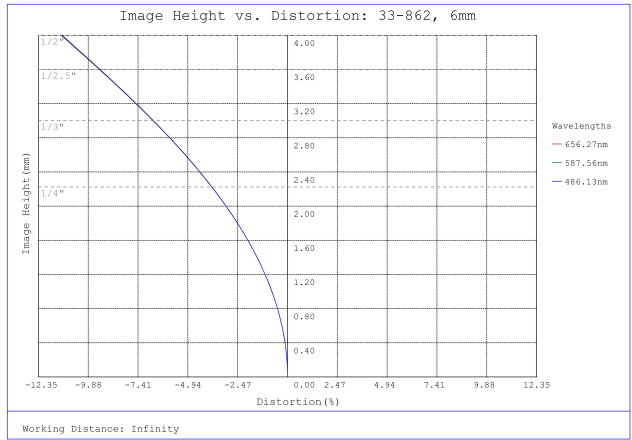
UC Series: Features locking cam focus and iris adjustment in an ultra-compact design and is the most adjustable version of these optical designs; they are the typical high-quality machine vision lenses.

UCi Series: Simplified mechanics featuring fixed apertures with compact housing. [Industrial Ruggedization](#) for reduced size, cost, and locked focus.

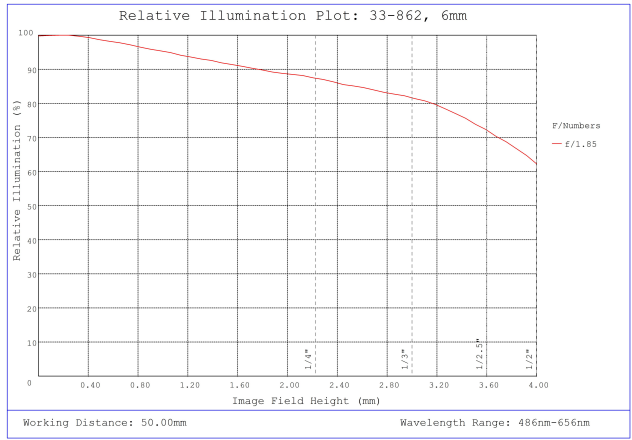
UCr Series: All optics glued in place and a locking C-clamp focus ring. [Stabilized Ruggedization](#) for reduced pixel shift and improved focus stability.

UCw Series: Waterproof, designed to meet IEC [Ingress Protection](#) Code IPX7 to withstand exposure to water up to 1 meter depth for 30 minutes.

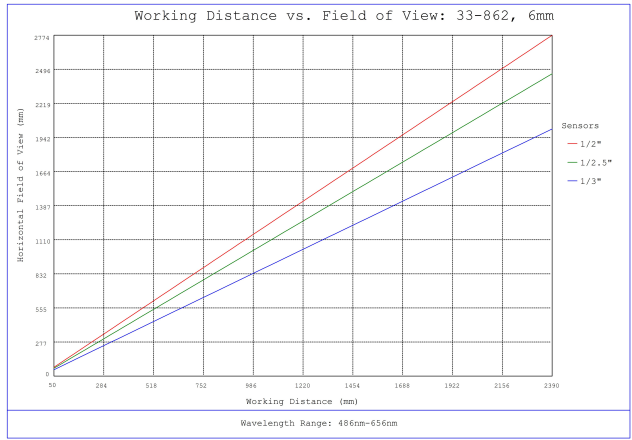
Technical Information



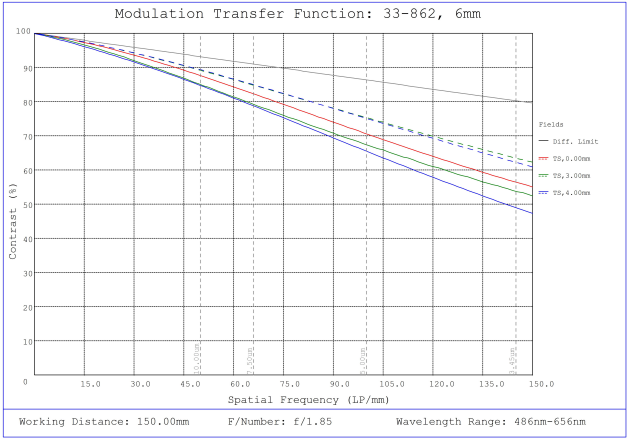
#33-862, 6mm, f/1.85 UCi Series Fixed Focal Length Lens, Distortion Plot



#33-862, 6mm, f/1.85 UCi Series Fixed Focal Length Lens, Relative Illumination Plot



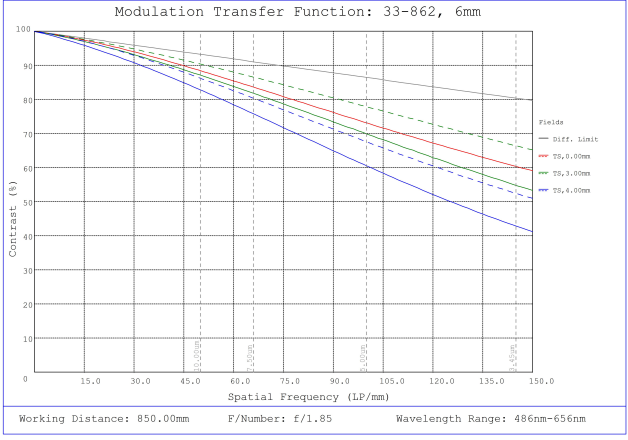
#33-862, 6mm, f/1.85 UCi Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



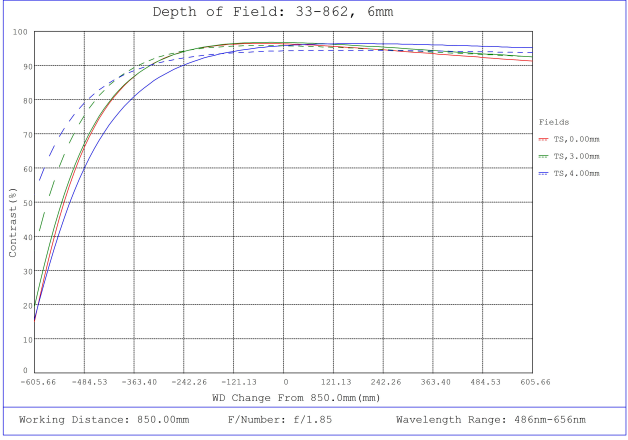
#33-862, 6mm, f/1.85 UCi Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 150mm Working Distance, f1.8



#33-862, 6mm, f/1.85 UCi Series Fixed Focal Length Lens, Depth of Field Plot, 150mm Working Distance, f1.8



#33-862, 6mm, f/1.85 UCi Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 850mm Working Distance, f1.8



#33-862, 6mm, f/1.85 UCi Series Fixed Focal Length Lens, Depth of Field Plot, 850mm Working Distance, f1.8

Compatible Cameras