

TECHSPEC<sup>®</sup> 8.5mm, f/8 Ci Series Fixed Focal Length Lens



8.5mm Focal Length

Stock #86-604 14 In Stock

-

1

+

£170<sup>00</sup>

ADD TO CART

| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-24       | £170.00 each                  |
| Qty 25+        | £153.00 each                  |
| Need More?     | <a href="#">Request Quote</a> |

ⓘ Prices shown are exclusive of VAT/local taxes

Product Downloads

General

|                         |                 |
|-------------------------|-----------------|
| Ci Series               | Product Family: |
| Fixed Focal Length Lens | Type:           |

Physical & Mechanical Properties

|       |              |
|-------|--------------|
| Fixed | Iris Option: |
|-------|--------------|

|       |                               |
|-------|-------------------------------|
| 33.98 | Length (mm):                  |
| 26.5  | Maximum Diameter (mm):        |
| 26.5  | Outer Diameter (mm):          |
| 34    | Weight (g):                   |
| 0.6   | Maximum Rear Protrusion (mm): |
| 26.50 | Diameter (mm):                |

Optical Properties

|                                                                                                                         |                                     |
|-------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| Horizontal Field of View @ Max Sensor Format:<br>128.6mm - 60.6°                                                        |                                     |
| Field of View at Max Sensor Format:<br>Horizontal: 124.9mm - 60.7°<br>Vertical: 88.9mm - 45°<br>Diagonal: 168.8mm - 77° |                                     |
| Horizontal Field of View, 2/3" Sensor:<br>128.6mm - 60.6°                                                               |                                     |
| Horizontal Field of View, 1/1.8" Sensor:<br>101.0mm - 49.2°                                                             |                                     |
| Horizontal Field of View, 1/2" Sensor:<br>88.3mm - 43.6°                                                                |                                     |
| Horizontal Field of View, 1/2.5" Sensor:<br>79.2mm - 39.5°                                                              |                                     |
| Horizontal Field of View, 1/3" Sensor:<br>64.6mm - 32.6°                                                                |                                     |
| Horizontal Field of View, 1/4" Sensor:<br>47.8mm - 24.4°                                                                |                                     |
| 11.00                                                                                                                   | Maximum Image Circle (mm):          |
| 0.0048                                                                                                                  | Numerical Aperture NA, Object Side: |
| 7 (5)                                                                                                                   | Number of Elements (Groups):        |
| 8.50                                                                                                                    | Focal Length FL (mm):               |
| 100 - ∞                                                                                                                 | Working Distance (mm):              |
| f/8                                                                                                                     | Aperture (f/#):                     |
| 425 - 675nm BBAR                                                                                                        | Coating:                            |
| 425 - 675nm BBAR                                                                                                        | Coating Specification:              |
| 8.22                                                                                                                    | Entrance Pupil Position (mm):       |
| 14.08                                                                                                                   | Object Space Principal Plane (mm):  |
| 6.67                                                                                                                    | Image Space Principal Plane (mm):   |
| -18.51                                                                                                                  | Maximum Distortion (%):             |
| -12.23                                                                                                                  | Exit Pupil Position (mm):           |
| VS                                                                                                                      | Lens Wavelength Range:              |

Sensor

|      |                        |
|------|------------------------|
| 2/3" | Maximum Sensor Format: |
| 2.74 | Pixel Size (µm):       |

Threading & Mounting

|                     |                        |
|---------------------|------------------------|
| M30.5 x 0.50 (Male) | Filter Thread:         |
| #89-932 (Required)  | Filter Thread Adapter: |
| M22.0 x 0.5 (Male)  | Front Thread:          |

|                                                       |                             |
|-------------------------------------------------------|-----------------------------|
| C-Mount                                               | Mount:                      |
| Environmental & Durability Factors                    |                             |
| -20 to +60                                            | Storage Temperature (°C):   |
| Industrial (Fixed Aperture with Simplified Mechanics) | Type of Ruggedization:      |
| Regulatory Compliance                                 |                             |
| Compliant                                             | RoHS 2015:                  |
| Compliant                                             | REACH 201:                  |
| View                                                  | Certificate of Conformance: |

## Product Details

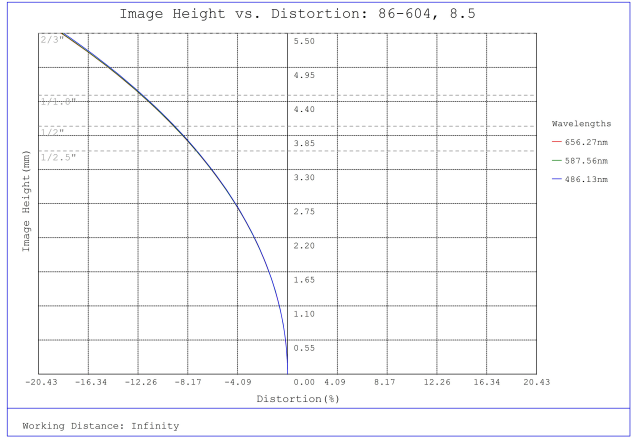
- Up to 2/3", C-Mount Lens
- Up to 7.5 MegaPixels, 2.8µm Pixel Size Sensors
- Instrumentation (Ci) Versions of our C Series Lenses with Streamlined Mechanical Designs and Fixed Apertures
- 3.5mm to 50mm Focal Length
- [Ruggedized \(Cr\) Designs](#) Also Available

TECHSPEC® Ci Series Fixed Focal Length Lenses are a streamlined version of our C Series Fixed Focal Length Lenses. They feature the same low lens-to-lens variation and broadband anti-reflection (BBAR) coating for maximum light transmission, while offering reduced weight and size. An adjustable, lockable focus allows for setting and locking the best focus position for instrumentation integration. TECHSPEC® Ci Series Fixed Focal Length Lenses are designed specifically for volume integration into applications such as factory inspection and automation to benchtop biomedical devices. The Ci Series offers a wide range of aperture options, ensuring maximum flexibility of resolution, throughput, and depth of field.

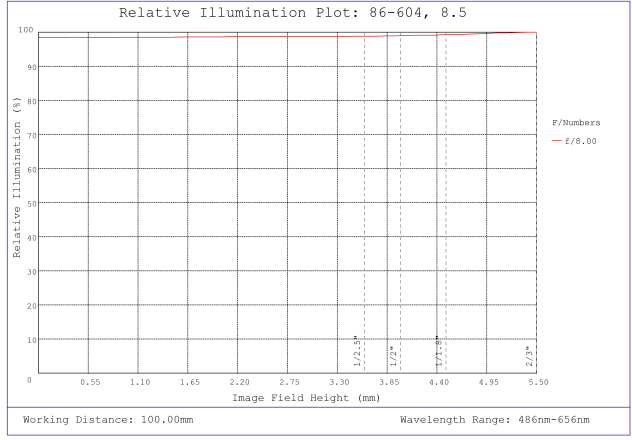
Edmund Optics has created a family of high performance optical designs (the C Series family) and developed 6 customized optomechanical solutions targeted for specific applications. These lens sub-families utilize the same optics as the C Series lenses providing the same optical performance in a variety of optomechanical solutions to meet your application requirements:

- C Series:** Features locking cam focus and iris adjustment and is the most adjustable version of these optical designs; they are the typical high quality machine vision lenses. Also available with a [VIS-NIR Broadband Anti-Reflection \(BBAR\) Coating](#).
- Ci Series: Simplified mechanics featuring fixed apertures with compact housing. [Industrial Ruggedization](#) for reduced size, cost, and locked focus.
- Cr Series:** All optics glued in place and a locking C-clamp focus ring. [Stabilized Ruggedization](#) for reduced pixel shift and improved focus stability.
- Cx Series:** Modular, flexible mechanics allows lenses to be taken apart for easy integration of accessories such as liquid lenses, apertures, and more.
- Liquid Lens Cx Series:** Designed with an integrated liquid lens for quick autofocus.
- Cw Series:** Waterproof, designed to meet IEC [Ingress Protection](#) Code IPX7 and IPX9K.

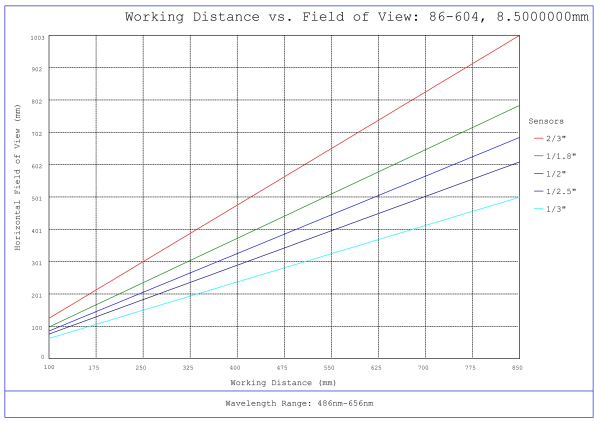
## Technical Information



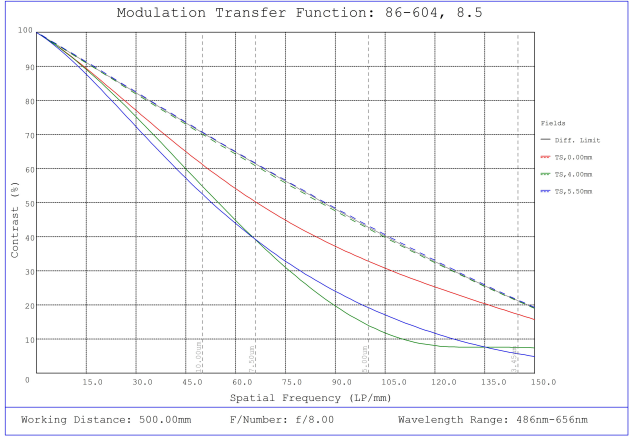
#86-604, 8.5mm, f/8 Ci Series Fixed Focal Length Lens, Distortion Plot



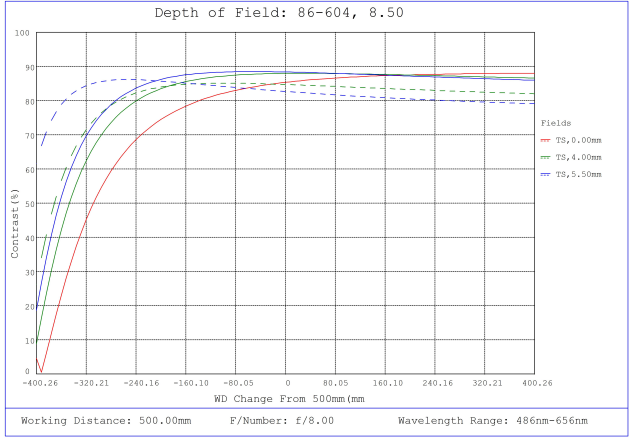
#86-604, 8.5mm, f/8 Ci Series Fixed Focal Length Lens, Relative Illumination Plot



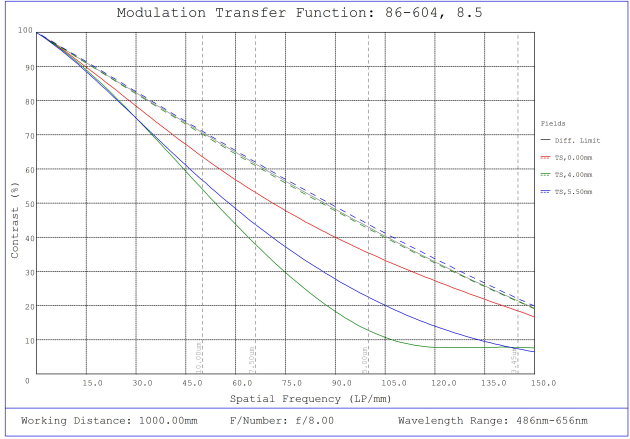
#86-604, 8.5mm, f/8 Ci Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



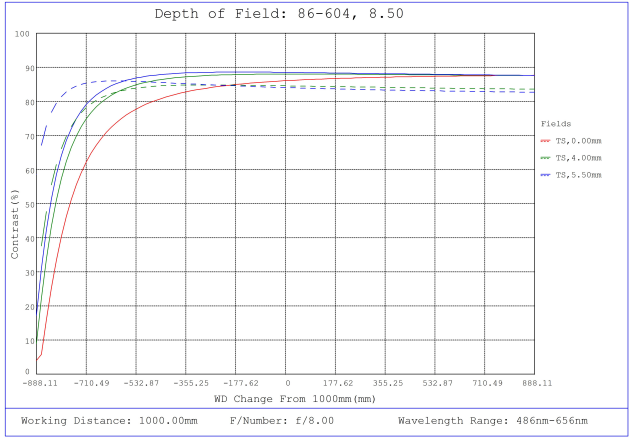
#86-604, 8.5mm, f/8 Ci Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 500mm Working Distance, f8



#86-604, 8.5mm, f/8 Ci Series Fixed Focal Length Lens, Depth of Field Plot, 500mm Working Distance, f8

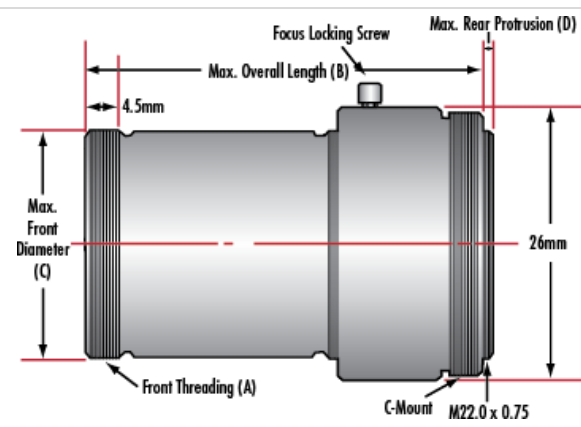


#86-604, 8.5mm, f/8 Ci Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 1000mm Working Distance, f8



#86-604, 8.5mm, f/8 Ci Series Fixed Focal Length Lens, Depth of Field Plot, 1000mm Working Distance, f8

| Focal Length | A           | B      | C      | D      |
|--------------|-------------|--------|--------|--------|
| 6mm          | M34.0 x0.5  | 47.8mm | 34mm   | 1.17mm |
| 12mm         | M22.0 x0.75 | 29.0mm | 22mm   | 0.96mm |
| 16mm         | M22.0 x0.75 | 40.8mm | 22mm   | 1.09mm |
| 25mm         | M22.0 x0.75 | 29.9mm | 22mm   | 1.33mm |
| 35mm         | M25.5 x0.5  | 41mm   | 22.5mm | 3.82mm |
| 50mm         | M30.5 x0.5  | 49.5mm | 30.5mm | 2.06mm |



## Compatible Cameras