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**TECHSPEC® 0.28X CobaltTL Telecentric Lens**



0.28X Magnification



Stock **#62-921** **20+ In Stock**

⊖ 1 ⊕ £4,432<sup>00</sup>

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Volume Pricing

Qty 1+	£4,432.00 each
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ⓘ Prices shown are exclusive of VAT/local taxes

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General

CobaltTL Series **Product Family:**

**Stock No. of Mounting Clamp:**  
#63-440 Sold Separately

Telecentric Lens **Type:**

## Physical & Mechanical Properties

Variable	Iris Option:
197.50	Length (mm):
138.6	Maximum Diameter (mm):
736	Weight (g):
17.5	Flange Distance (mm):

## Optical Properties

50.8mm	Horizontal Field of View, 1.1" Sensor:
46.18mm	Horizontal Field of View, 1" Sensor:
31.75mm	Horizontal Field of View, 2/3" Sensor:
25.98mm	Horizontal Field of View, 1/1.8" Sensor:
23.1mm	Horizontal Field of View, 1/2" Sensor:
17.60	Maximum Image Circle (mm):
0.023	Numerical Aperture NA, Object Side:
10 (7)	Number of Elements (Groups):
<0.113	Typical Telecentricity @ 588nm (°):
<0.008	Typical Distortion @ 588nm (%):
0.28X	Primary Magnification PMAG:
0.28	Telecentric Lens Magnification:
182	Working Distance (mm):
50.7 x 37.1	FOV @ Max Sensor Format, H x V (mm):
f/6 - f/22	Aperture (f/#):
425 - 675nm BBAR	Coating:
±6.22mm at f/10 (20% @ 20 lp/mm)	Depth of Field (mm):
0.28X	Magnification:
VIS	Lens Wavelength Range:

## Sensor

1.1"	Maximum Sensor Format:
2.20	Pixel Size (µm):

## Threading & Mounting

M132 x0.75 (Female)	Filter Thread:
C-Mount	Mount:

## Regulatory Compliance

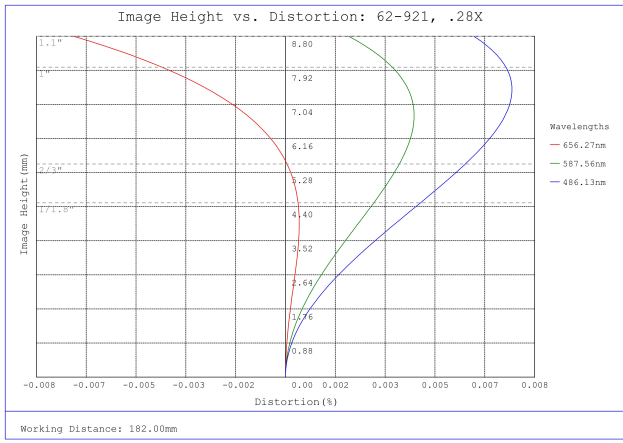
Not Compliant	RoHS 2015:
<a href="#">View</a>	Certificate of Conformance:

## Product Details

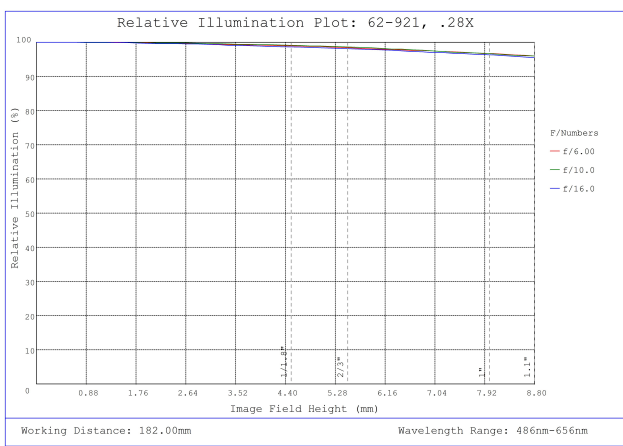
- High Resolution Bi-Telecentric Lens with In-Line Illumination Options
- Up to 20 MegaPixels, 2.2 $\mu$ m Pixel Size
- 1.1", C-Mount Telecentric Lens with  $f$ /#s as Low as  $f/4$

TECHSPEC® CobaltTL Telecentric Lenses are designed for semiconductor and electronics inspection, measurement, and gauging applications. These telecentric lenses achieve high light throughput with industry leading low  $f$ /#s. Featuring less than 0.015° telecentricity and low 0.013% distortion, these lenses are ideal for image stitching applications. These 17.6mm diagonal sensor format lenses are compatible with the Sony IMX304 1.1" sensors and other similar format sensors such as the Sony IMX183. TECHSPEC® CobaltTL Telecentric Lenses produce unparalleled levels of contrast yielding maximum image quality with the highest degree of measurement accuracy. In-line versions provide the ability to rotate/reposition the inline illumination port to allow for maximum flexibility when machine building. TECHSPEC® CobaltTL Telecentric Lenses are compatible with high vibration environments and feature a removable recessed set screw for securely locking the iris in place.

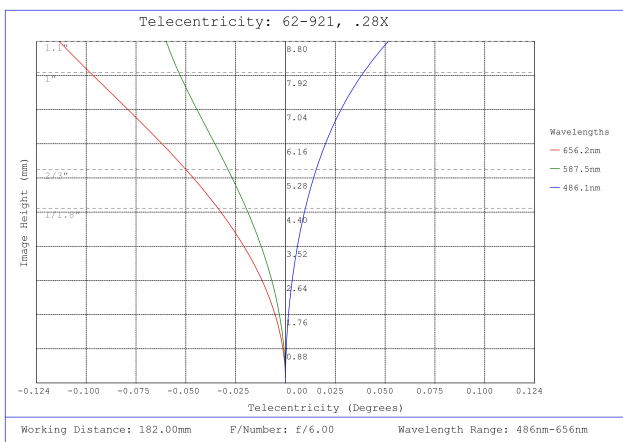
## Technical Information



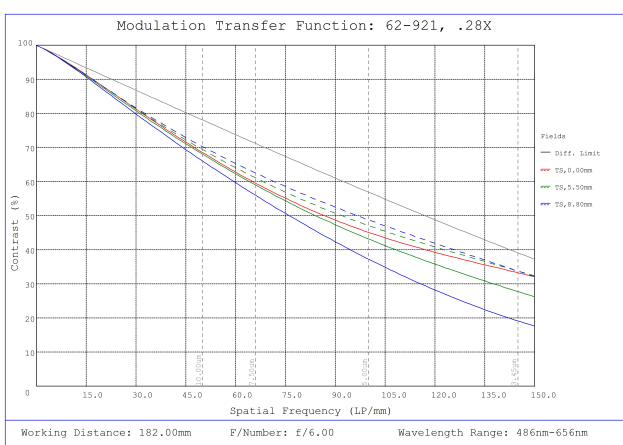
#62-921, 0.28X CobaltTL Telecentric Lens, Distortion Plot



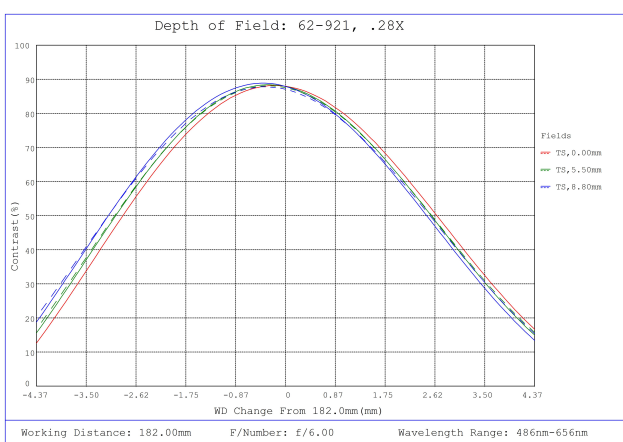
#62-921, 0.28X CobaltTL Telecentric Lens, Relative Illumination Plot



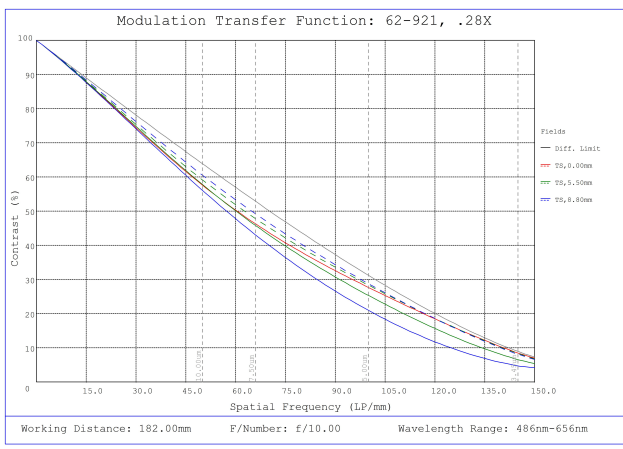
#62-921, 0.28X CobaltTL Telecentric Lens, Telecentricity Plot



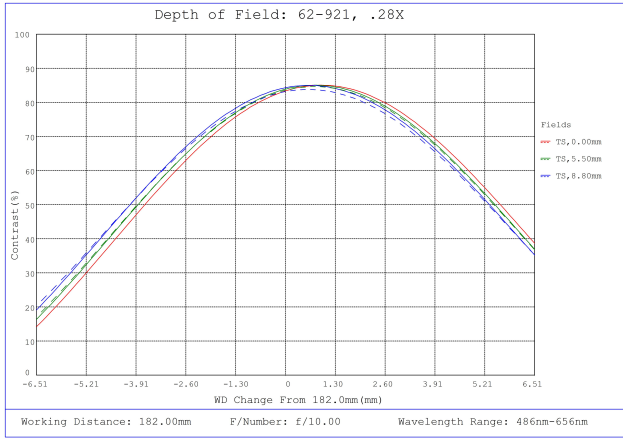
#62-921, 0.28X CobaltTL Telecentric Lens, Modulated Transfer Function (MTF) Plot, 182mm Working Distance,  $f/6$



#62-921, 0.28X CobaltTL Telecentric Lens, Depth of Field Plot, 182mm Working Distance,  $f/6$



#62-921, 0.28X CobaltTL Telecentric Lens, Modulated Transfer Function (MTF) Plot, 182mm Working Distance, f10



#62-921, 0.28X CobaltTL Telecentric Lens, Depth of Field Plot, 182mm Working Distance, f10

Description		Stock No.	Length (A)	Front Diameter (B)	Back Diameter (C)
0.28X	C-Mount	#62-921	197.59mm	138.6mm	50mm
0.36X	C-Mount	#88-602	163.5mm	70mm	43.5mm
0.5X	C-Mount	#62-911	172.9mm	90mm	50mm
0.55X	C-Mount	#88-603	182.5mm	62mm	43.5mm
0.69X	C-Mount	#15-872 / #15-873 (In-Line)	174.96mm	55mm	46mm
0.9X	C-Mount	#62-901	199.8mm	65mm	53mm