

TECHSPEC[®] 18mm DG Series Fixed Focal Length Lens



18mm Focal Length, #54-857

Stock **#54-857** 20+ In Stock

-

1

+

S\$801^{.00}

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Volume Pricing	
Qty 1-49	S\$801.00 each
Qty 50+	S\$632.00 each
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SPECIFICATIONS

General

DG Series

Series:

Fixed Focal Length Lens

Type:

Traditional Double-Gauss Style Lens

Imaging Lens Type:

Physical & Mechanical Properties

Variable	Iris Option:
32.30	Length (mm):
54	Maximum Diameter (mm):
54	Outer Diameter (mm):
116	Weight (g):
3.5	Maximum Rear Protrusion (mm):

Optical Properties

Horizontal Field of View @ Max Sensor Format: 159.2mm - 38.4°	
Field of View at Max Sensor Format: Horizontal: 159.2mm - 38.5° Vertical: 118.8mm - 29.3° Diagonal: 200.1mm - 47.2°	
Horizontal Field of View, 1" Sensor: 159.2mm - 38.4°	
Horizontal Field of View, 2/3" Sensor: 108.7mm - 26.8°	
Horizontal Field of View, 1/1.8" Sensor: 88.8mm - 22.0°	
Horizontal Field of View, 1/2" Sensor: 78.8mm - 19.6°	
Horizontal Field of View, 1/2.5" Sensor: 70.2mm - 17.5°	
Horizontal Field of View, 1/3" Sensor: 59.2mm - 14.8°	
Horizontal Field of View, 1/4" Sensor: 44.4mm - 11.1°	
Maximum Image Circle (mm): 16.00	
Numerical Aperture NA, Object Side: 0.0098	
Number of Elements (Groups): 6 (4)	
Focal Length FL (mm): 18.00	
Working Distance (mm): 210 - ∞	
Aperture (f/#): f/4 - f/12	
Coating: λ/4 MgF ₂	
Coating Specification: λ/4 MgF ₂	
Entrance Pupil Position (mm): 12.23	
Object Space Principal Plane (mm): 20.45	
Image Space Principal Plane (mm): -5.66	
Maximum Distortion (%): -0.96	
Exit Pupil Position (mm): -20.48	
Lens Wavelength Range: VIS	

Sensor

1"	Maximum Sensor Format:
2.74	Pixel Size (μm):

Threading & Mounting

Filter Thread: M30.5 x 0.50 (Female)	
Mount: C-Mount	

Environmental & Durability Factors	
-20 to +60	Storage Temperature (°C):
Regulatory Compliance	
Compliant	RoHS 2015:
Compliant	REACH 201:
View	Certificate of Conformance:

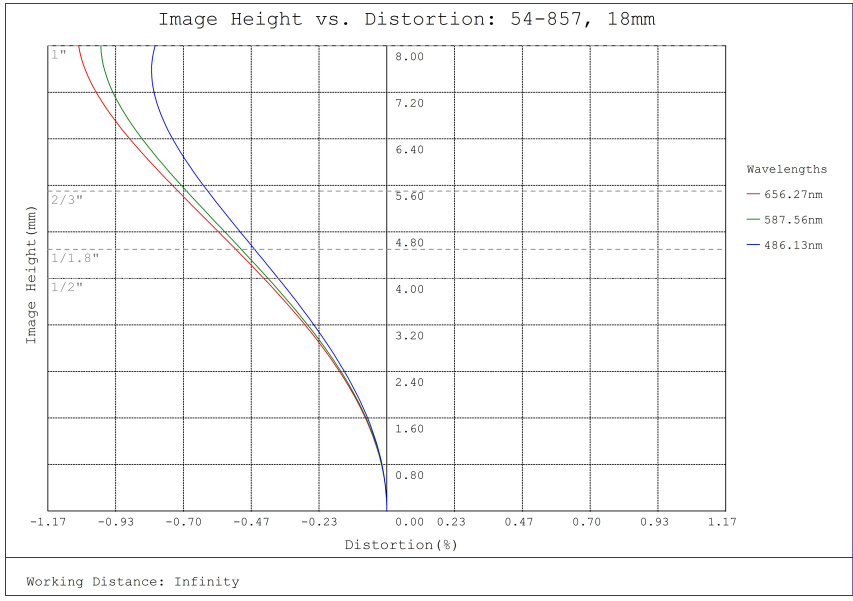
PRODUCT DETAILS

- Up to 4/3", C-Mount Lens
- Up to 9 MegaPixels, 2.8µm Pixel Size Sensors
- Double Gauss (DG) Lens with low distortion and high performance
- 18mm to 75mm Focal Length

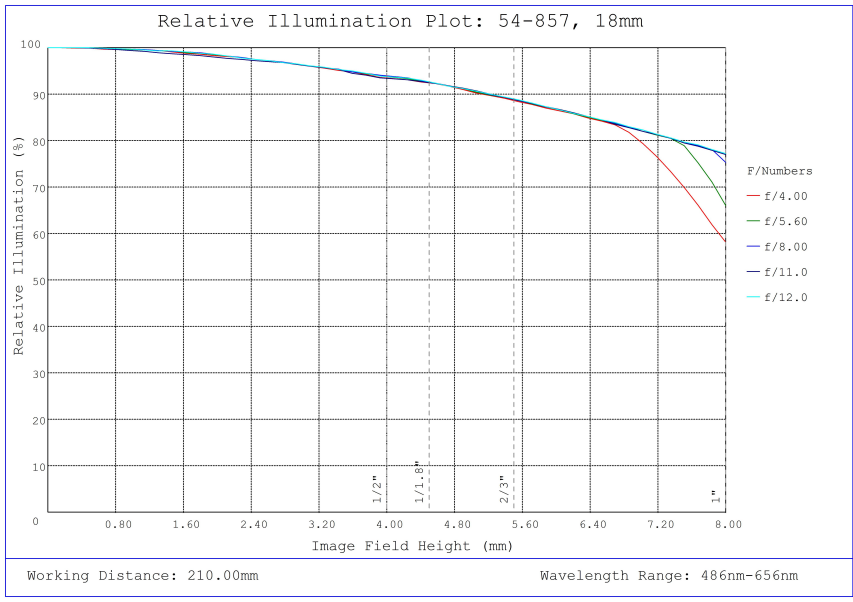
TECHSPEC® DG Series Fixed Focal Length Lenses utilize a Double Gauss design to provide high-performance, low distortion, compact size, and exceptional value, while exceeding the performance of typically available fixed focal length lenses. These lenses feature a mechanical design that allows the focusing movement to be motorized by the user, yields image resolution greater than 100 lp/mm, and have a standard C-Mount. For most applications, the camera-lens combination can be attached to workstations using the ¼-20 mount provided on the camera. TECHSPEC® DG Series Fixed Focal Length Lenses include focus ring, manual iris, and set screws to facilitate a low profile integration in machine vision applications. Typical applications for the DG Series lenses include machine vision, assembly-line integration, and measurement and image analysis.

Note: [Industrial Boom Stands](#) are recommended for building vibration-free workstations.

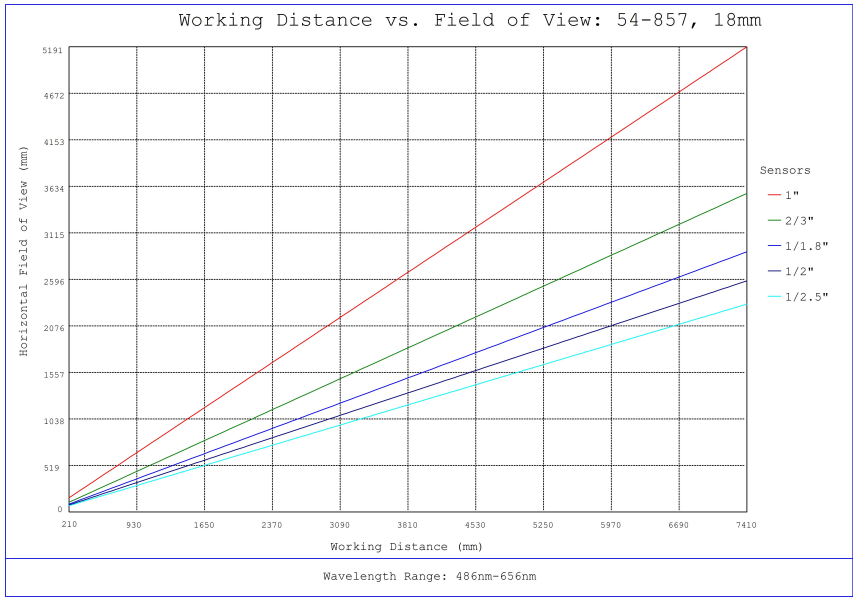
TECHNICAL INFORMATION



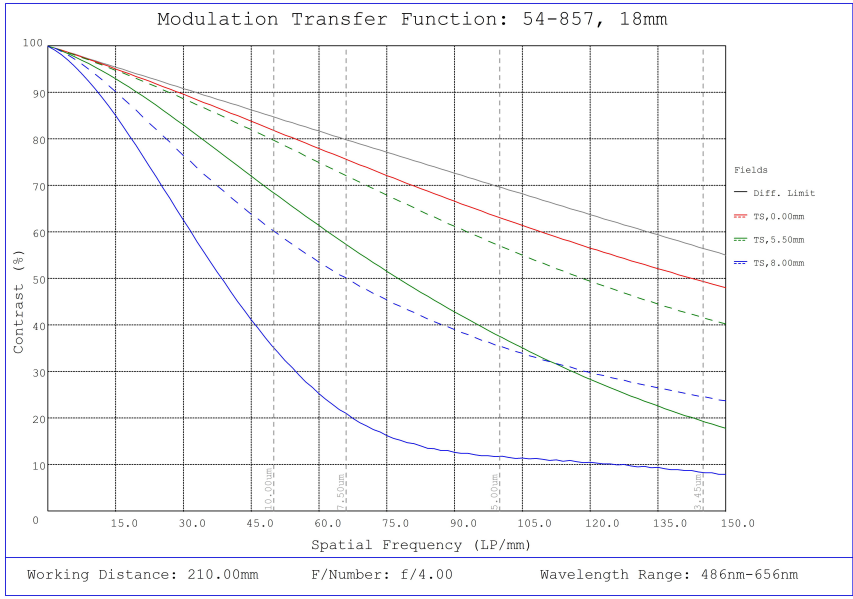
#54-857, 18mm DG Series Fixed Focal Length Lens, Distortion Plot



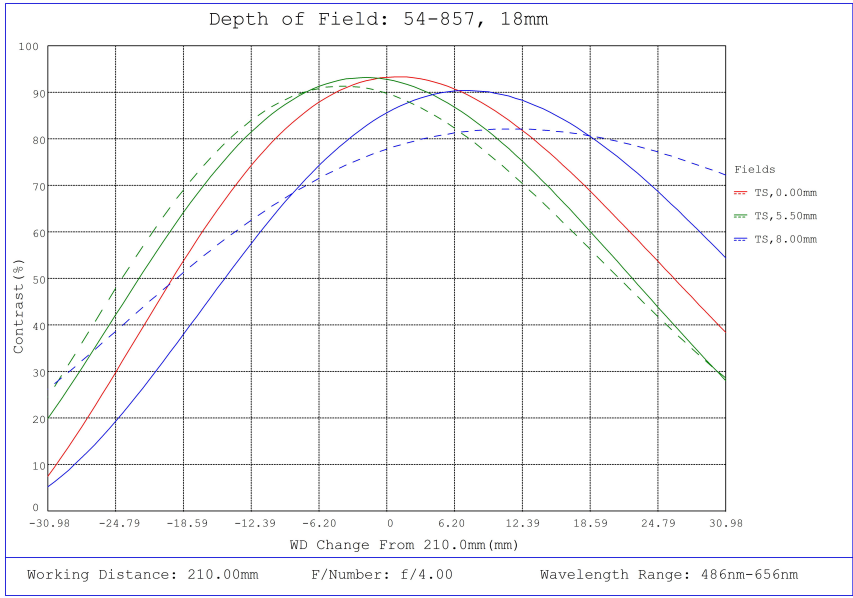
#54-857, 18mm DG Series Fixed Focal Length Lens, Relative Illumination Plot



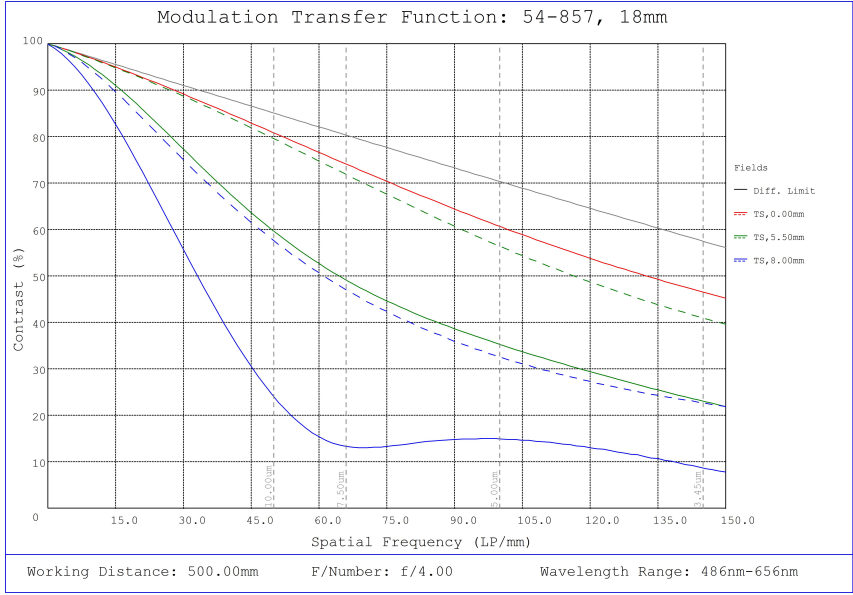
#54-857, 18mm DG Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



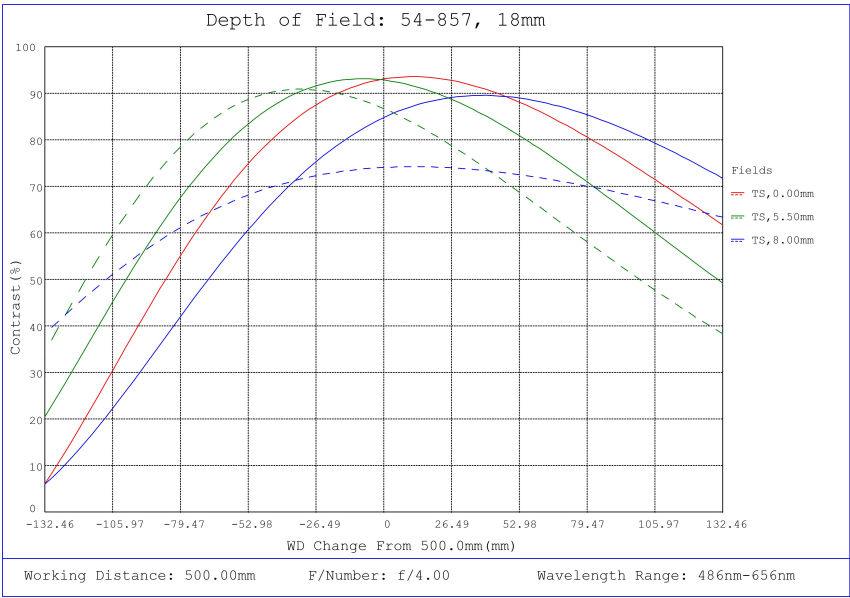
#54-857, 18mm DG Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 210mm Working Distance, f4



#54-857, 18mm DG Series Fixed Focal Length Lens, Depth of Field Plot, 210mm Working Distance, f4



#54-857, 18mm DG Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 500mm Working Distance, f4



#54-857, 18mm DG Series Fixed Focal Length Lens, Depth of Field Plot, 500mm Working Distance, f4

Dimensions							
FL (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Filter Thread (Dia. x Pitch)
18	48.0	32.3	4.6	40.0	-	2.5	M30.5 x 0.5
25	39.0	40.0	5.8	34.7	30.7	2.2	M30.5 x 0.5
35	45.0	50.1	11.6	40.0	42.1	0	M37.0 x 0.75
50	47.5	69.0	10.6	40.0	40.8	0	M39.0 x 0.5
75	54.0	116.2	19.2	46.0	67.7	0	M49.0 x 0.75

COMPATIBLE CAMERAS