

### Tailored Distortion™ Miniature SuperFisheye™ Lens



#### Description

The DSL181 lens is a miniature SuperFisheye™ lens with Tailored Distortion™ designed with a field of view of up to 190 degrees on 1/4" to 1/2" format imagers with HD resolution. The low F-number, thermal stability, and special distortion characteristics make this lens ideal for exterior based camera applications.

#### Key Features

- SuperFisheye FOV: 190°
- Tailored Distortion™
- Superior low light performance: F/2.2 aperture
- Compact size

### Optical Specifications

Sunex PN DSL181	
Description	Tailored Distortion™ Fisheye Lens
Imager Format	Up to 1/2"
Nominal Imager Resolution	2MP
Focal Length	1.25mm
Relative Aperture (F/#)	F/2.2
Image Circle	4.8mm
Field of View	190° at 4.8mm image circle
Total Track Length	16.5mm
Distortion	+15.3% from F-θ
Chief Ray Angle	15° at 4.8mm image circle, linear
IR cut-off filter	Optional IR cut-off filter at 650 nm

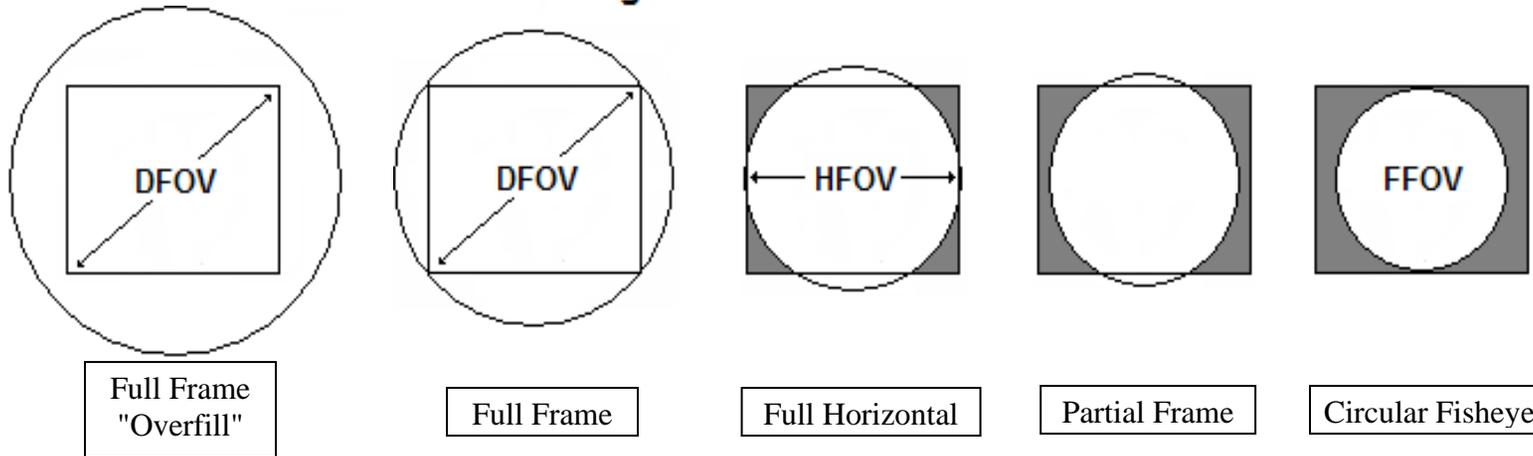
#### Applications

- Automotive Surround View
- Security and Surveillance
- Internet of Things (IoT)
- Computer Vision

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Image circle format using a 4:3 aspect ratio imager:

### Image Circle vs. Sensor Format



*DSL181 on: 1/4" and smaller*

*~1/4"*

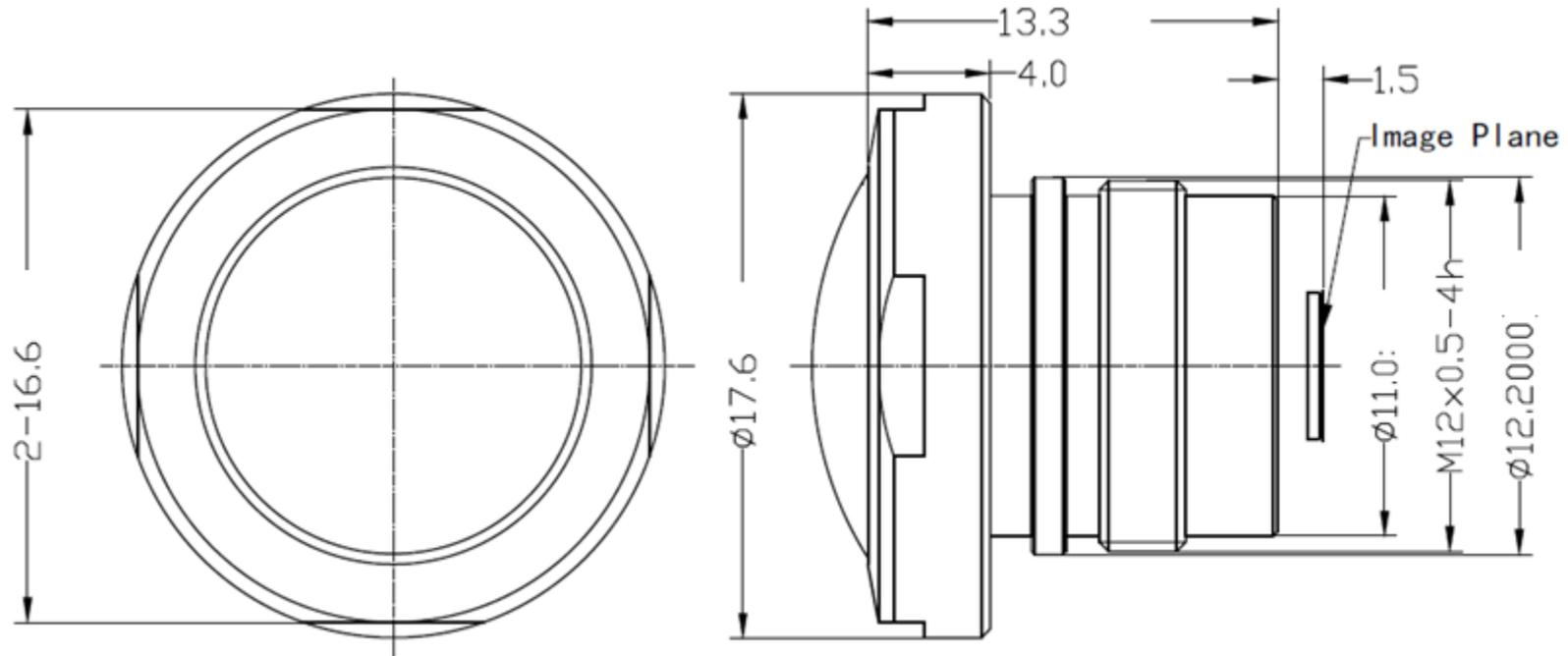
*~1/3"*

*~1/2.5"*

*1/2" or larger*

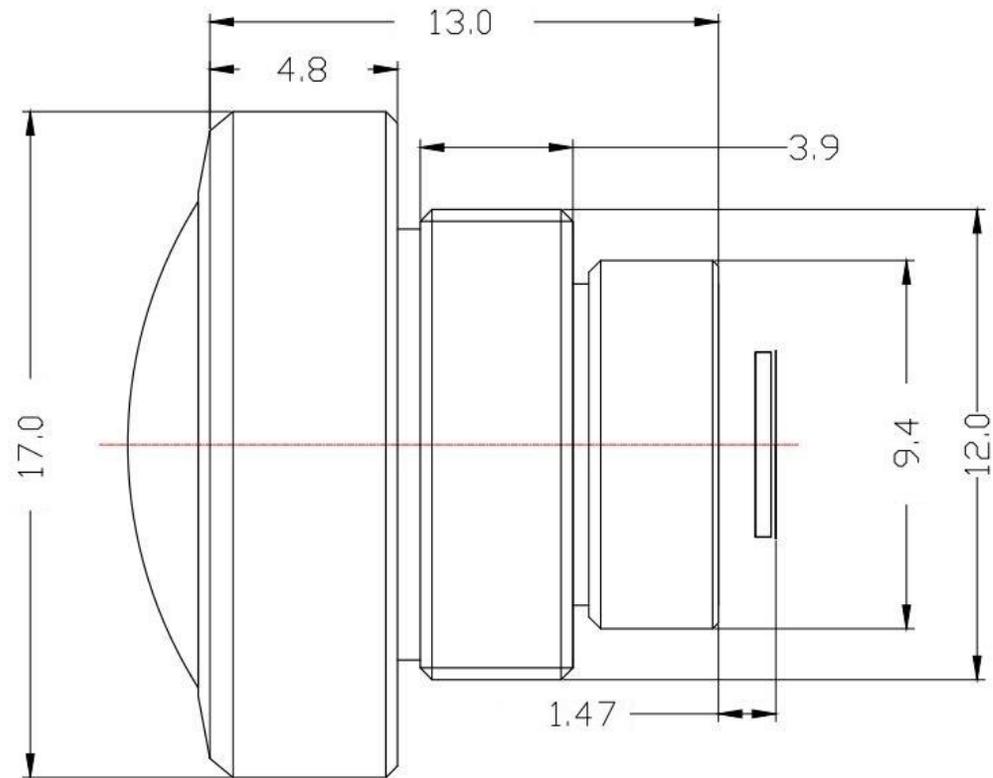
### DSL181B-650-F2.2 and DSL181B-NIR-F2.2 Mechanical Dimensions [mm]:

Note: DSL181B is intended for use with Sunex CMT168 mount



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### DSL181C-650-F2.2 Mechanical Dimensions [mm]:



Notes:

1. EFL=1.25
2. F#=2.2
3. Barrel Material: Black anodized AL  
Cap Material: Black anodized AL;
4. IR Cut Coating: T=50%@650±10nm

**For reference only**