

Tailored Distortion™ Miniature SuperFisheye™ Lens



Description

The DSL180 lens is a Tailored Distortion™, miniature SuperFisheye™ lens designed with a field of view of up to 200 degrees on 1/5" to 1/2.8" format imagers with HD resolution. Special design techniques and hybrid design form are used to achieve increased magnification (angular resolution) off axis compared to a standard fisheye lens.

Key Features

- Tailored Distortion™
- Maximum 200° FOV
- F/2.0 aperture for low-light performance
- Compact size: 17mm total track length

Optical Specifications

Sunex PN DSL180	
Description	Tailored Distortion™ Fisheye Lens
Imager Format	Up to 1/2.8"
Nominal Imager Resolution	1.3MP
Focal Length	0.97mm
Relative Aperture (F/#)	F/2.0
Image Circle	3.8mm
Field of View	200° at 3.8mm image circle
Total Track Length	17.1mm
Distortion	+14% from F-θ
Chief Ray Angle	2.85° at 3.8mm image circle, linear
IR cut-off filter	Optional IR cut-off filter at 690nm

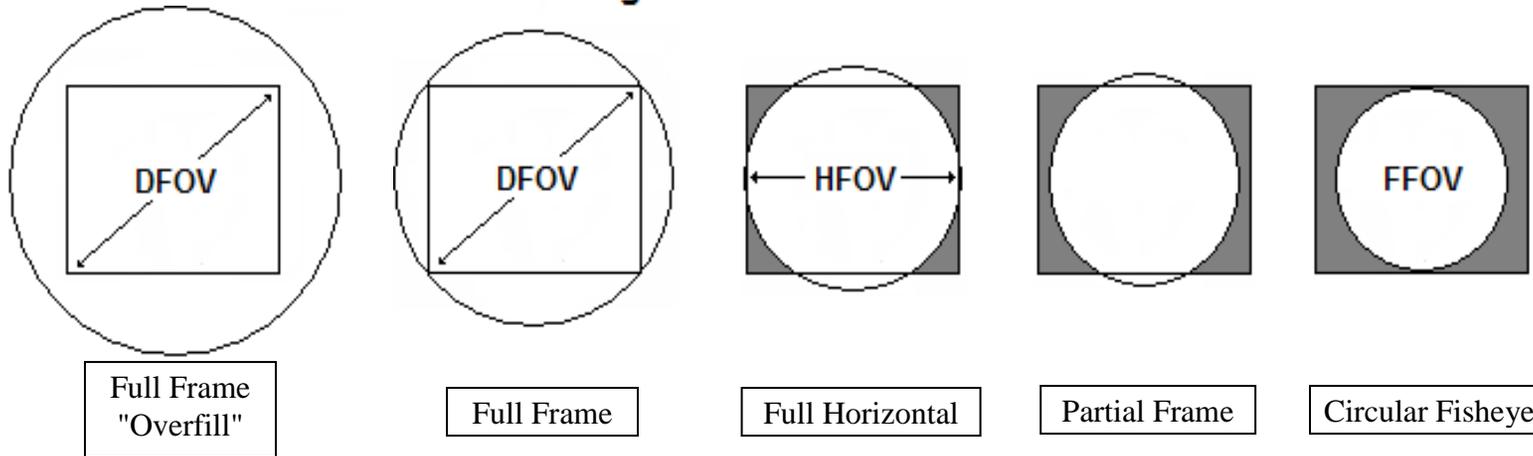
Applications

- Automotive Rear Vision
- Automotive Surround Vision
- Security/Surveillance
- Internet of Things (IoT)
- Computer vision

Excellence in Digital Imaging Optics

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

Image Circle vs. Sensor Format



DSL180 on: 1/5" and smaller

~1/5"

~1/3.6"

~1/3.2"

1/2.8" or larger

DSL180A-690-F2.0 and DSL180A-NIR-F2.0 Mechanical Dimensions [mm]:

Note: DSL180A is intended for use with Sunex CMT821 mount

