

Wide Angle Security Lens

Description

The DSL203 lens is a miniature, wide-angle lens optimized for security and automotive applications. Great resolution and an all-glass design means stable, high-quality imaging for a variety of indoor and outdoor applications.

Key Features

- Designed for multi-megapixel resolution sensors
 - Full field of view of up to 140°
 - High brightness, F/2.6 aperture
 - All glass design provides environmental stability
- Distortion: f- θ type for easy de-warping (*image height is proportional to the input angle $h=f*\theta$ where f is the focal length*).

Applications

- Security and surveillance
- Automotive rear view cameras

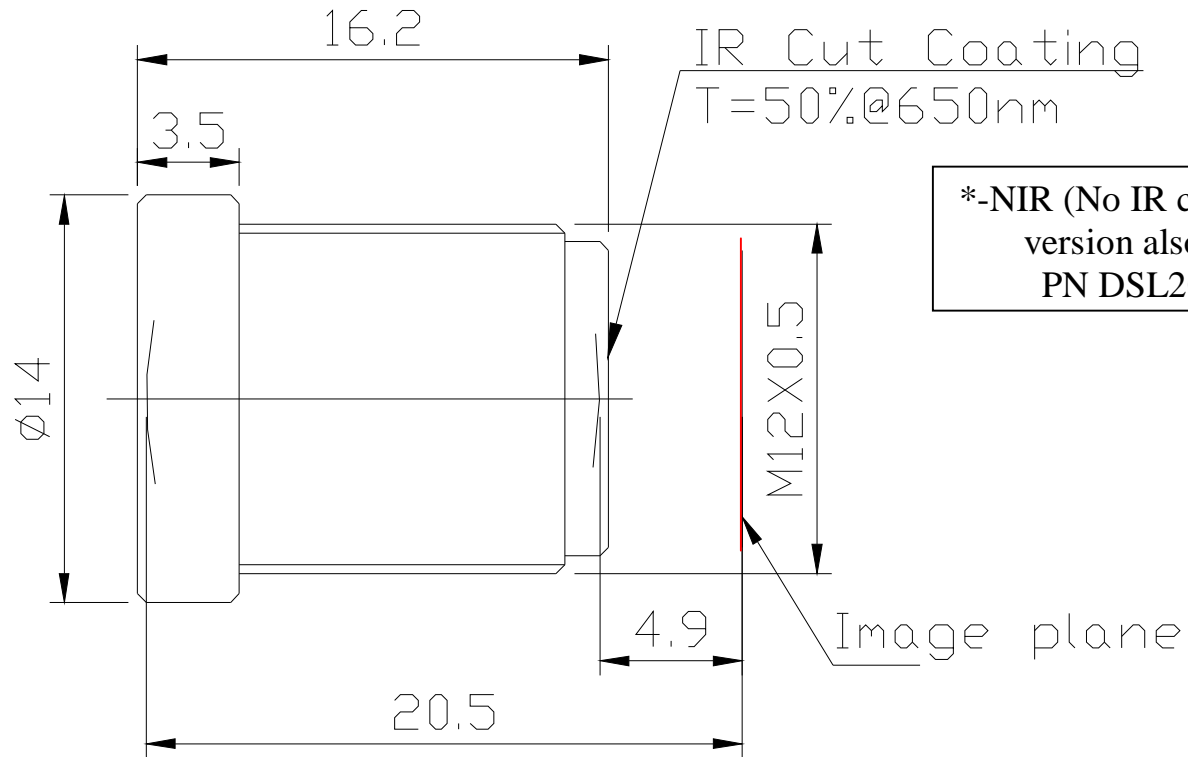
Table 1. Optical Parameters

Sunex PN: DSL203	
Description	Wide Angle Lens
Design Imager Format	1/3"
Focal Length [mm]	2.8
F/#	2.6
Design Image Circle [mm]	5.7
Diagonal Field of View	140°
Resolution	See MTF chart
Distortion [f- θ]	-18% from f- θ
Corner Chief Ray Angle [degrees]	<16°
Relative Illumination	92%
Mechanical	See drawing below
Back Focal Length [mm]	4.9
Lens Barrel Thread	M12x0.5
IR Cut-off Filter	See below

Table 2. Horizontal FOV by sensor format and size

for sensor format	1/2.5"	1/3"	1/3.2"	1/4"
with horizontal width (mm)	5.6	4.8	4.5	3.6
the HFOV is	140°	111°	102°	78°

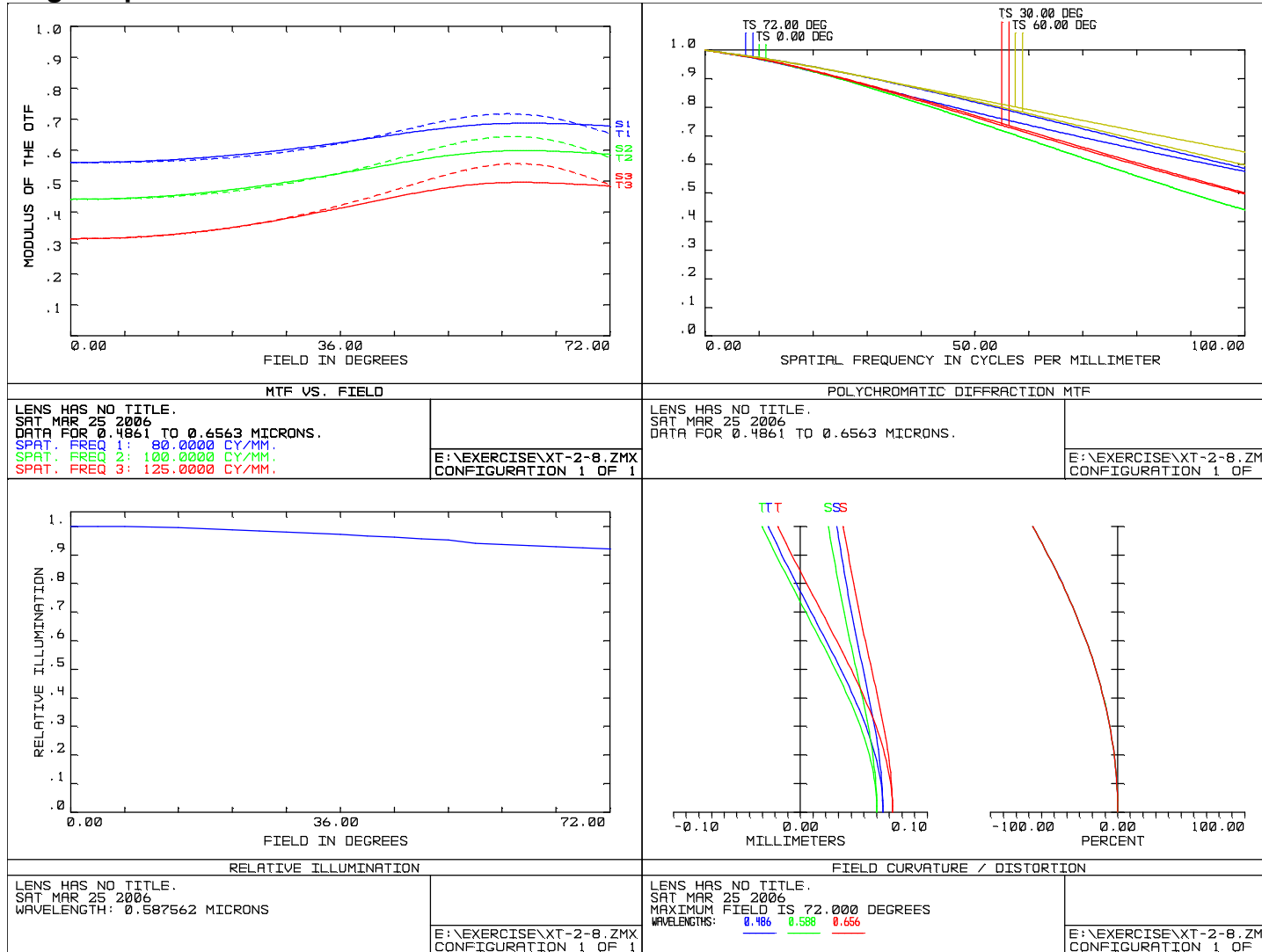
Mechanical dimensions of DSL203A (mm)



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Optical Design Report



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