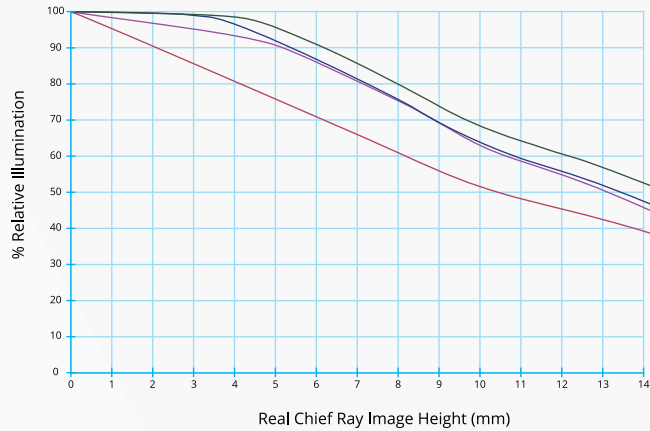


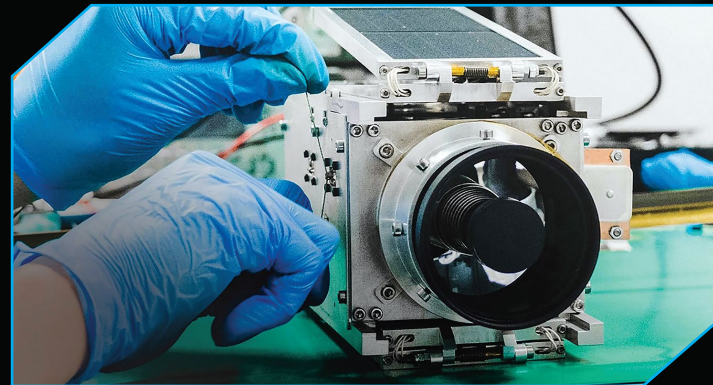
## VIGNETTING

**Relative Illumination**  
f=300mm F5.6 MIRROR

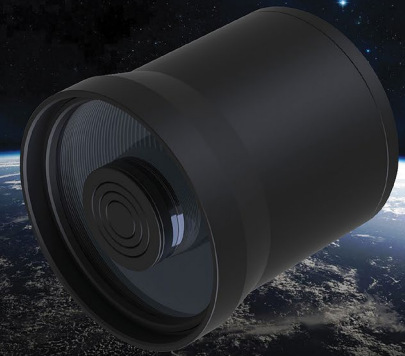
- zoom position 1 – infinity
- zoom position 2 – 5077 mm
- zoom position 3 – 2080 mm
- zoom position 4 – 928 mm



*Lens stabilization in the nanosatellite body.*



**IRIX**  
SPACE OPTICS



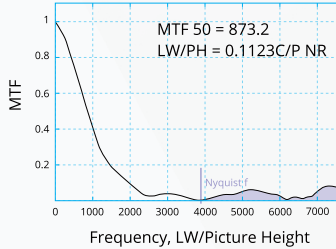
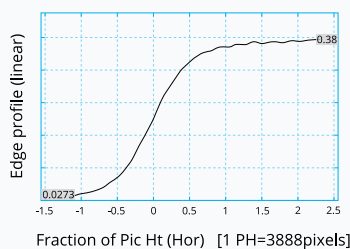
**300 mm**  
SPACE READY

## VIBRATION TEST



FREQUENCY (Hz)	AMPLITUDE (g <sup>2</sup> /Hz)
20	0,057
153	0,057
190	0,099
250	0,099
750	0,055
2000	0,018
g <sub>RMS</sub>	9,47

*Laboratory model vibration test and a table with the ranges and amplitudes of vibrations.*



The Irix 300SR lens complies with the requirements of Nasa Standard Materials and Processes Requirements for Spacecraft.

Contact us for more information.

[space.irixlens.com](http://space.irixlens.com)



<b>MAIN PROPERTIES</b>	<i>Focal Length</i>	300 mm
	<i>F-number</i>	5.6
	<i>Angle of view</i>	3.04°
	<i>Camera mount</i>	C-mount 1"/32 and others available on special request
<b>EXTERNAL DIMENSIONS</b>	<i>Total length</i>	75.5 mm
	<i>Total weight</i>	260 g
	<i>Total diameter</i>	70 mm
<b>TECHNICAL DATA</b>	<i>Distortion aberration</i>	1%
	<i>Sensor size</i>	16 mm (diag)
	<i>Number of lenses (ASPH)</i>	8 lenses
	<i>Temperature resistance*</i>	-50°C to +150°C
	<i>Resistance to mechanical vibrations*</i>	5-100 Hz (2.5G) and 100-140 Hz (1.25G)

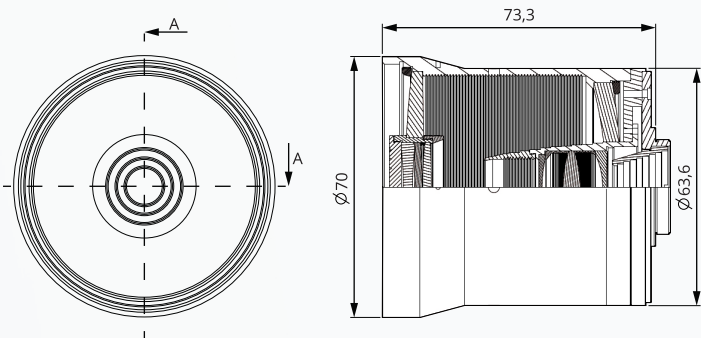
	OPTICAL RESOLUTION MTF50
Measurement before vibration test	864,2 LW/PH
Measurement after vibration test	864,7 LW/PH

# TECHNICAL DATA

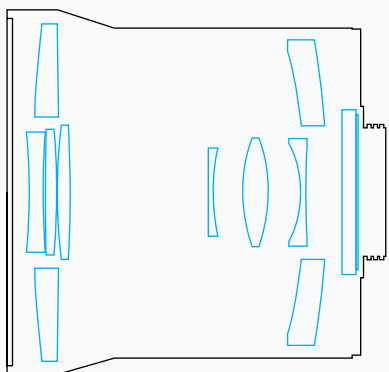
As a result of the optical resolution test of the laboratory model was obtained at the level of 853 LW /PH (MTF50).

The resolution measurements made before and after vibration test show that the lens components haven't been damaged and have not changed their positions.

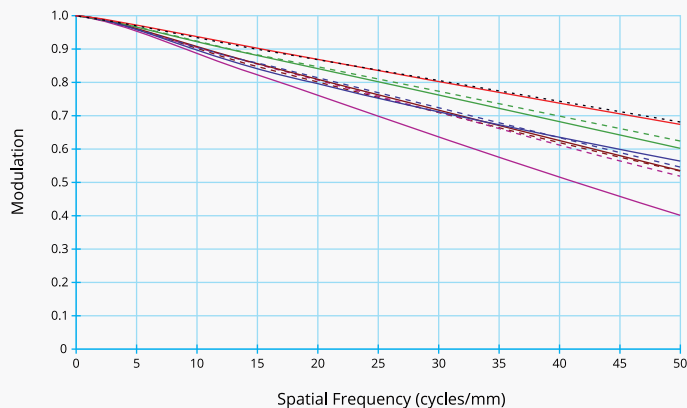
## EXTERNAL DIMENSIONS



## OPTICAL LAYOUT

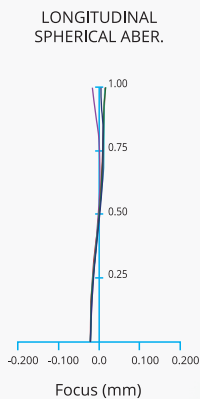


**Diffraction MTF**  
f=300mm F5.6 MIRROR

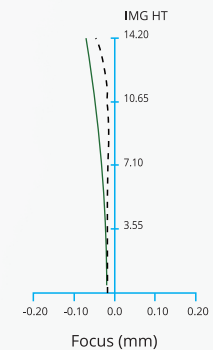


**Infinity**

**Astigmatism**

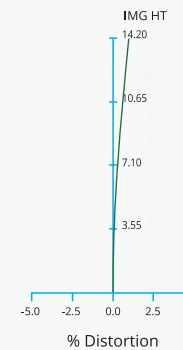


ASTIGMATIC FIELD CURVES

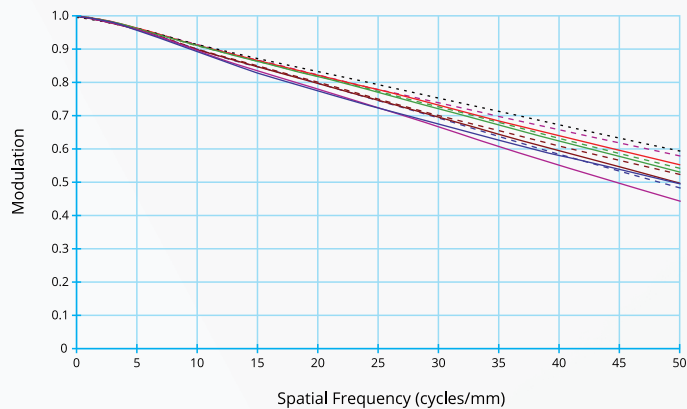


**Infinity**

DISTORTION

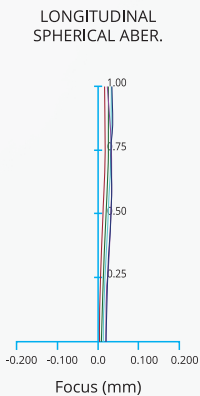


**Diffraction MTF**  
f=300mm F5.6 MIRROR

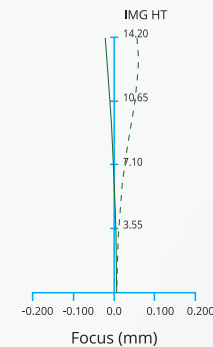


**5077 mm**

**Astigmatism**

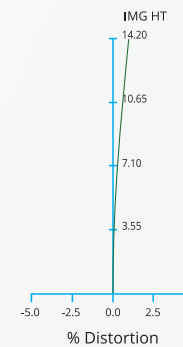


ASTIGMATIC FIELD CURVES



**5077 mm**

DISTORTION



- ..... F1: Diff. Limit
- F1: (RIH) 0.000 mm
- F2: T (RIH) 4.000 mm
- F2: R (RIH) 4.000 mm
- F3: T (RIH) 8.000 mm
- F3: R (RIH) 8.000 mm
- F4: T (RIH) 12.000 mm
- F4: R (RIH) 12.000 mm
- F5: T (RIH) 14.200 mm
- F5: R (RIH) 14.200 mm

- 656.2700 NM
- 587.5600 NM
- 546.0900 NM
- 479.9100 NM
- 435.8300 NM