

# LENS OB-SPACE – F450/7

## GENERAL DESCRIPTION

THIS NEW GENERATION OF HIGH PERFORMING LENSES ARE REDESIGNING THE WORLD OF SPACE READY OPTICS AT A GLOBAL LEVEL, ENSURING DETAILS NEVER SEEN BEFORE, BOTH LOOKING AT INFINITY AND AT CLOSER WORKING DISTANCES.

INTERNAL RESEARCH HAS BROUGHT IN OUR PRODUCT PORTFOLIO SPACE COMPLIANT MATERIAL AND A NEW LIST OF RAD-HARD GLASSES, ALLOWING TO OUR OPTICAL DESIGNERS NEW DEGREES OF FREEDOM IN OBTAINING BLEEDING EDGE PERFORMING SYSTEMS.

ALL OUR LENSES ARE ASSEMBLED IN ISO5 ENVIRONMENT.

## LET US BE YOUR EYES IN THE SPACE!!!

OPTICAL AND MECHANICAL PARAMETERS			
FOCAL LENGTH@1300NM	450MM	OPTICAL LAYOUT	DIOPTRIC
F/N	7	FOCUS	FIXED
IMAGE FORMAT	22.2MM	N. OF ELEMENTS	6
F.O.V.	±1.41°	WAVELENGTH RANGE	900-1700NM
BACK FOCAL LENGTH	60MM	AR COATING	R<0.5%@900-1700NM
RESOLUTION	MTF>38%@50LP/MM	FLANGE FOCAL LENGTH	CUSTOMIZED
DISTORTION	<0.2%	DIMENSIONS	UPON REQUEST
VIGNETTING	<11%	WEIGHT	UPON REQUEST
WORKING DISTANCE RANGE	INFINITY – 2KM	QUALIFICATION LEVEL	NASA GEVS
AVERAGE TRANSMISSION	>90%	ATHERMALIZATION	UPON REQUEST
RAD HARD	UPON REQUEST	MOTORIZED FOCUS	UPON REQUEST
SUN EXCLUSION ANGLE	UPON REQUEST	OTHER MOUNT TYPE	UPON REQUEST
STRAY LIGHT	UPON REQUEST	CAMERA INTERFACE	CUSTOM DESIGN
		CUSTOMIZATION	UPON REQUEST

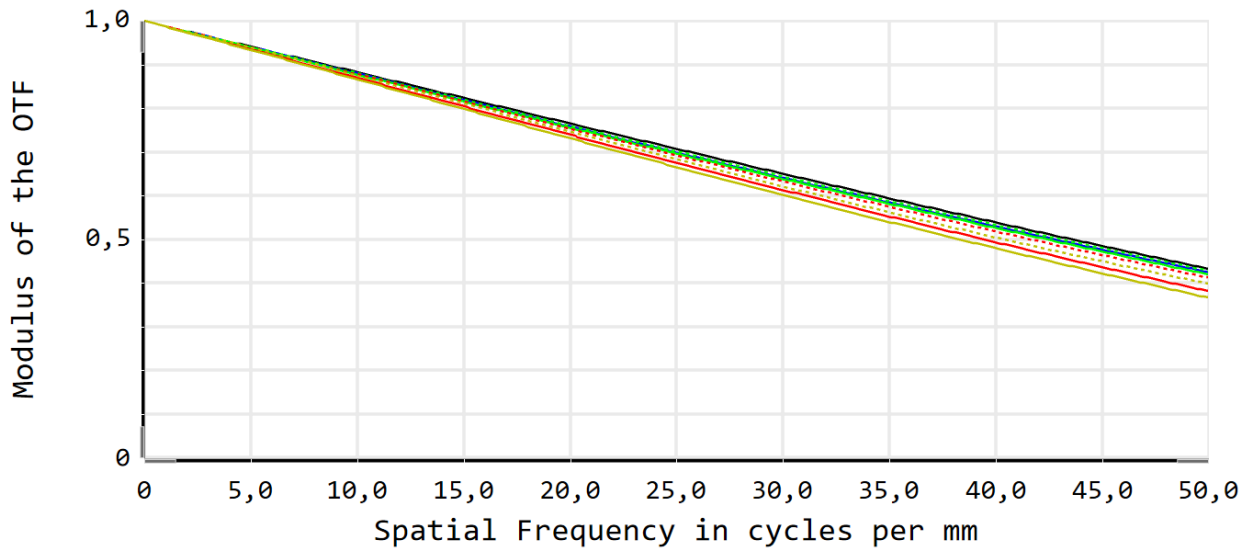
$$\text{Ground resolution} = \frac{WD \cdot \text{pixel\_size}}{\text{Focal length}}$$

$$\text{Area framed on the ground} = \frac{WD \cdot \text{sensor\_linear\_dimension}}{\text{Focal length}}$$

Where WD is the quote.

Specification are subject to change without notice

THE CALCULATED MTF VALUES ARE DISPLAYED BELOW AND ARE VERIFIED AT THE MAXIMUM F/N AND THE BEST FOCUS PLANE.  
THE COLORED LINES REPRESENT THE F.O.V. STARTING FROM THE CENTER (0%) TO THE CORNER (100%).



- |                          |                          |                       |
|--------------------------|--------------------------|-----------------------|
| — Diff. Limit-Tangential | --- Diff. Limit-Sagittal | — 0,00 mm-Tangential  |
| --- 0,00 mm-Sagittal     | — 6,00 mm-Tangential     | --- 6,00 mm-Sagittal  |
| — 9,85 mm-Tangential     | --- 9,85 mm-Sagittal     | — 11,10 mm-Tangential |
| --- 11,10 mm-Sagittal    |                          |                       |

Polychromatic Diffraction MTF

07/08/2019  
Data for 0,9000 to 1,7000 μm.  
Surface: Image

Legend items refer to Field positions

Optec S.p.A.  
Optical & Optoelectronic Systems

prova.2.FN 8.lungo.zmx  
Configuration 1 of 1

MORE DETAILS ARE AVAILABLE UPON REQUEST AND TECHNICAL DRAWINGS ARE OPEN FOR THE CUSTOMERS AND THEIR NEEDS.

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