

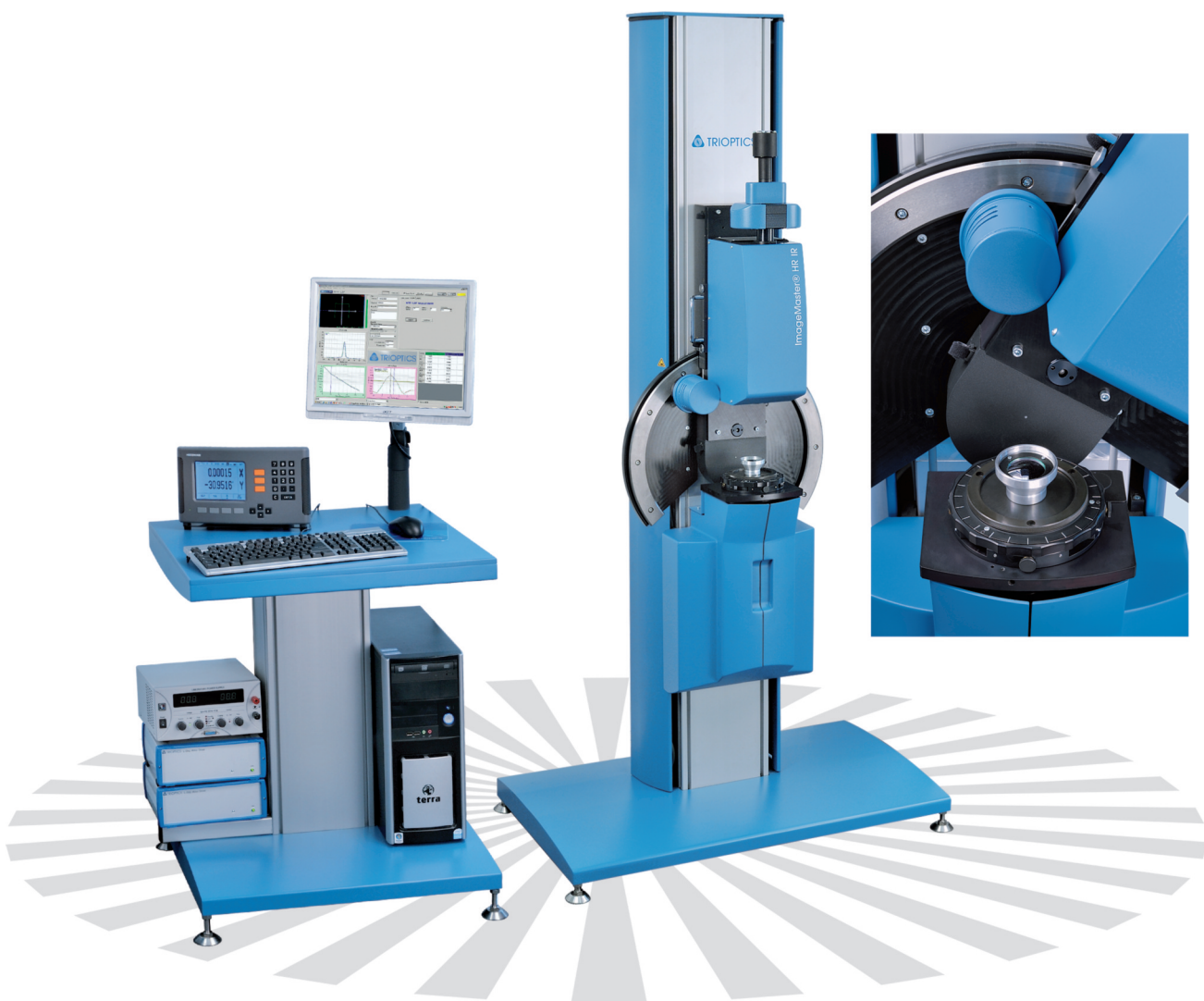


TRIOPTICS

TRIOPTICS GMBH · OPTISCHE INSTRUMENTE

ImageMaster® HR IR

The only Vertical and Camera Based MTF Test Station Covering the Complete Spectral Range from VIS to IR



ImageMaster® HR IR, based on the well proven ImageMaster® HR, has been developed to fulfill customer requirements for highest accuracy and flexibility. It is designed for the measurement of MTF and other optical parameters of today's high-end IR optics in R&D and production.

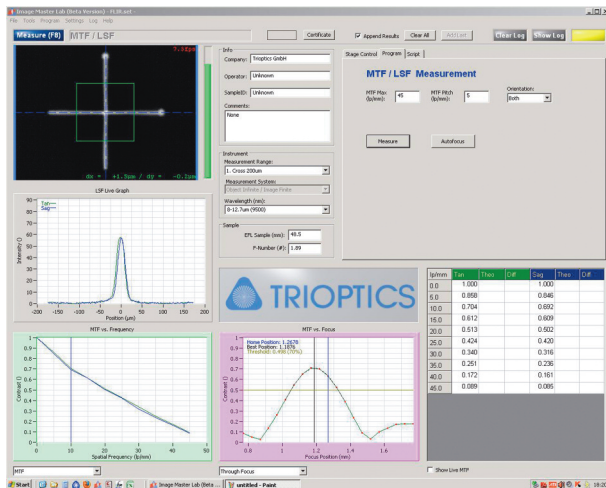
The fully computer-controlled instrument comes with a high-quality mirror collimator,

broadband IR light source and IR focal plane array image sensor.

It can be configured for testing optical systems with:

- Object at infinity
- On-axis and off-axis (up to $\pm 90^\circ$)
- Clear aperture up to 60 mm
- VIS spectral range optional
- Sample EFL range 10-150 mm

The ImageMaster® HR IR Software



ImageMaster® HR IR Software showing the measurement results

The ImageMaster® Software provides unique features to optimize the measurement process:

- Measurements of MTF, EFL and a range of other parameters using special target patterns and dedicated software routines
- Conventional MTF measurement using a single slit or a crosshair as a target
- Optionally automated selection and positioning of the suitable reticle (target) and filter for the current application
- Configuration files with optimized process parameters and password protected access for operator and supervisor
- Script tools for custom programming and analysis

Specifications ImageMaster® HR IR

Configuration	Infinity conjugate
Spectral range	LWIR (8-12 μm), VIS (0.4-0.9 μm), MWIR (3-5 μm) and SWIR (0.9-1.7 μm) on request
Optical parameters	MTF on-axis, off-axis (angle up to $\pm 90^\circ$) Effective Focal Length (EFL) Relative Flange Focal Length (FFL) Distortion Astigmatism Chromatic aberrations and more
Sample EFL range	10 – 150 mm
Clear aperture	60 mm
MTF accuracy	± 0.03 MTF
MTF repeatability	± 0.02 MTF
Spatial frequency range	0-50 lp/mm
Azimuth range	360°



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