



- 1 MFT measuring station.
- 2 Image analysis group.
- 3 MTF vs Field vs Focus.

CHARACTERIZATION OF SINGLE LENSES AND OBJECTIVE LENSES

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During the development of optical systems, it is necessary to characterize single components as well as complete systems. Corresponding measurement techniques are necessary, which provide an interface to the optical design software. The following measurement methods are available:

Specifications

- Sample:
 - max. Ø 150 mm, 5 kg
 - focal length 5-700 mm
 - conjugates: infinite – finite
- Spectral range:
 - with camera:
 - VIS: 380-780 nm
 - NIR: 750-1000 nm
 - with scanning-detector:
 - SWIR: 1-2.5 µm
 - MWIR: 3-5 µm
 - LWIR: 8-12 µm

Measurements

- MTF on-axis and off-axis up to 100 degrees
- Focal length
- Distortion
- Longitudinal and lateral chromatic aberration
- Field curvature
- Astigmatism

Measurement accuracy

- Absolute MTF: ±0.02 (on-axis), ±0.03 (off-axis)
- Focal length: < 1%
- Traceable to international standards