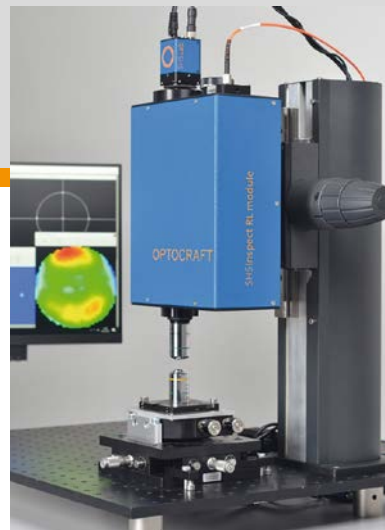


**SHSInspect**  
Metrology solutions for optics

# The SHSInspect applications

Optocraft's instruments are widely used in R&D and production when performance, reliability and efficiency counts most. Based on the state-of-the-art wavefront sensor SHSLab, Optocraft offers measurement modules, turnkey instruments and automated tools for a great variety of applications in the field of optics and optical systems.

Measurement of ...	SHSInspect			
	RL module	1Xpass	2Xpass	autoLab
<b>Optical elements</b> Plano optics, filters, spheric and aspheric lens elements, mirrors, etc.	✓	✓	✓	✓
<b>Micro optics</b> Micro optics down to a diameter of 0.05mm with high numerical aperture		✓		✓
<b>Optics for lasers and microscopy</b> Objectives with low and high NA, air and immersion, high end and mass production	✓		✓	
<b>Optics for consumer devices</b> R&D and quality control of lenses for mobile devices, camera lenses, etc.	✓	✓	✓	✓
<b>Astro optics and systems</b> Telescopes, instruments, etc.	✓			
<b>Optics in mass production</b> Automated assembly, automated inspection, etc.	✓			✓



# Turnkey solutions

## SHSInspect 1Xpass

All-in-one instrument for testing single lenses, filters, etc.  
High accuracy, fast

- Wavefront, Zernike, PSF, MTF



## SHSInspect 2Xpass

All-in-one instrument for multifunctional measurements of lenses, objectives, etc.  
High accuracy, automated measurement process

- Wavefront, Zernike, PSF, MTF
- On of axis
- Chromatic aberrations
- Polarisation effects

## SHSInspect autoLab

Automated test device for micro lenses and mass optics on wafers or trays

- Performance and shape of lenses, defects
- Short cycle time per lens



*“We depend on partners who develop and deliver customized innovative metrology solutions. This requires a high degree of creativity, know-how in physics and a maximum amount of flexibility. When facing demanding tasks, OPTOCRAFT fulfills these requirements with strong personal commitment and in a professional manner.”*

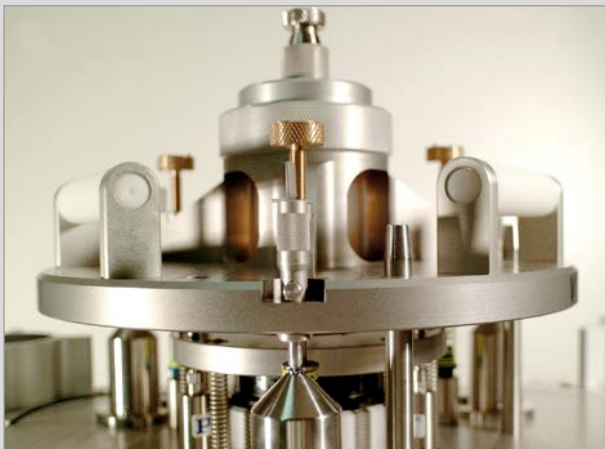
**Thomas Thöniß, Qioptiq**

# Modules and custom solutions

## SHSInspect RL module

Optical measurement module for integration into customer set-ups, OEM, inline testing, etc. High accuracy, flexible in application

- Wavefront, Zernike, PSF, MTF
- Adjustment, quality test
- Surface and radius of curvature



## Custom solutions

Customization of standard instruments and development of fully-customized solutions

- Machine integration
- Tight measurement specifications

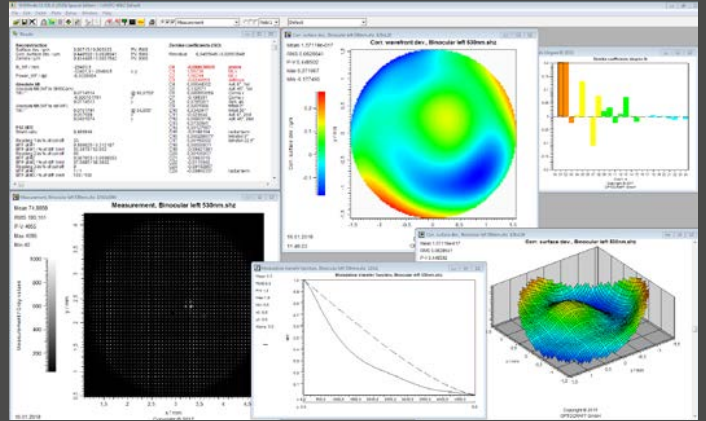
### Why SHSInspect?

- Single shot, high speed measurement based on Optocraft's state-of-the-art wavefront sensor technology
- Broad spectrum of applications: low demand on coherence allows for a wide range of light sources
- Robust and reliable: minimal requirements on the operating environment. Produces accurate results even when vibrations cannot be eliminated
- Stand-alone or integrated into manufacturing environments

# All you've ever wanted to know about your optics – captured by SHSInspect!

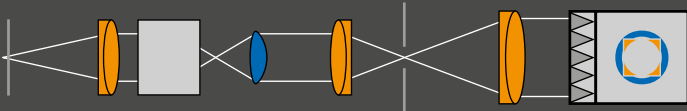
**SHSWorks captures multiple properties of optics and optical systems – in just one single measurement.**

- Wavefront, Zernike, PSF, MTF
- On- and of axis aberrations
- Chromatic aberrations
- Adjustment
- Surface, radius of curvature
- Additional VCC camera



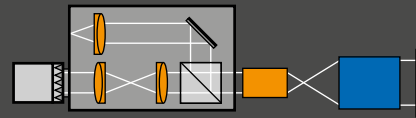
## Measurement configurations

1Xpass: single pass measurement



- Plano filters, lens elements, aspheres
- Calibration with golden master sample

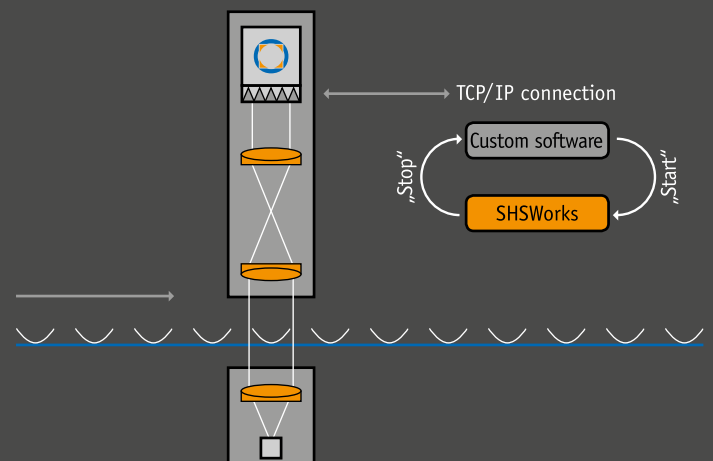
2Xpass: double pass measurement



- Lens assemblies, telescopes, binoculars
- Calibration with flats, spheres
- Finite and infinite conjugate

## Automatic and automation functions

- Multifunctional systems with automatic processing
- Modules for integration into automated manufacturing
- Fast, robust, reliable





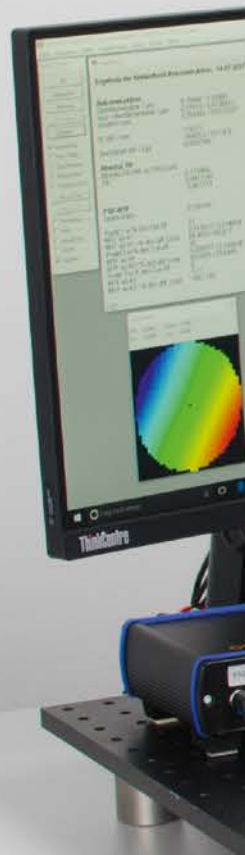
## Why Optocraft?

Optocraft has been developing and manufacturing Shack-Hartmann wavefront sensors since 2001. With decades of experience in optical metrology and design, we constantly push the limits of this technology. Our systems can be found all over the world and cover even the most demanding applications. Our customers enjoy our dedicated and reliable support.

We love to be challenged - try us!

## Contact us!

Tel. +49 9131 / 69 15 00  
sales@optocraft.com



## Know your quality.

Optical metrology made by Optocraft

OPTOCRAFT GmbH · Am Weichselgarten 7 · D-91058 Erlangen

