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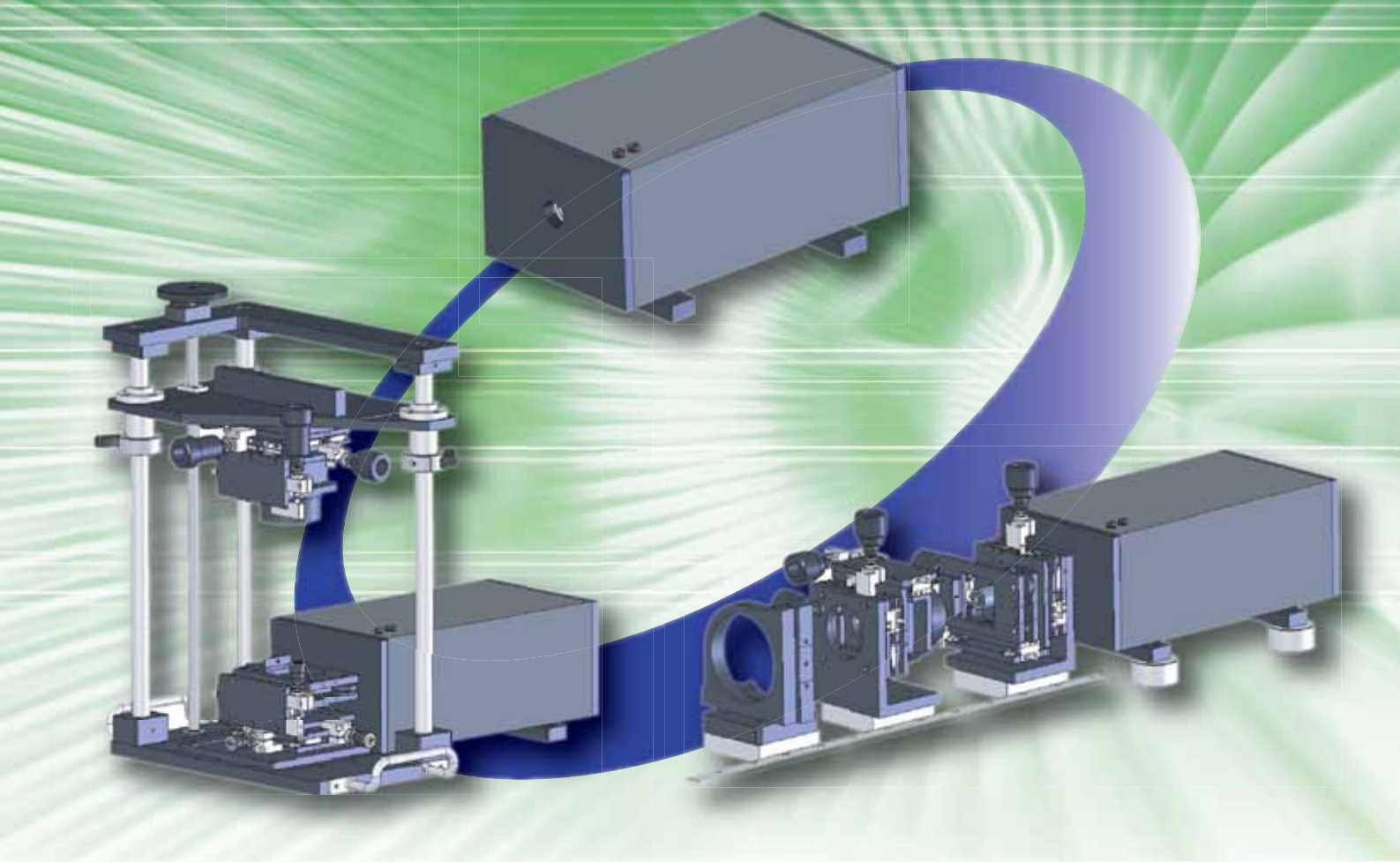
LUCAS

Lens Unit Check and Adjustment System

Achieves a stable wavefront measurement in real-time at a low price.



■ Product Outline

The LUCAS (Lens Unit Check and Adjustment System) is a equipment that inspects and adjusts a lens unit using Shack-Hartmann wavefront sensor. Taking advantage of its high-speed and stable performance, it is well suited to introduce into product line that requires tact time reduction.Measurement accessory can be chosen and system tooling can be changed easily.It has great prospects for the future and allows you to leverage the system entirely for a long term.

■ Features

- ♦Since the LUCAS has a wide dynamic range it can measure the large aberration that is difficult to be measured with the interferometer.
- ♦Wavefront aberration can be measured in real time by high-speed graphic updating. (Max.3Hz)
- ♦It is equipped with 635nm light source for measurement.
- ♦It is insusceptible to vibration and temperature so that it can carry out the stable measurement during the production process.
- ♦Wavefront measurement software that is dedicated for the LUCAS is included.

■ Applications

- ♦Inspection of aspherical lens and convex-concave lens.
- ♦Adjustment for lens unit and optical devices.
- ♦Inspection of reflection and transmissive wavefront of planar object.

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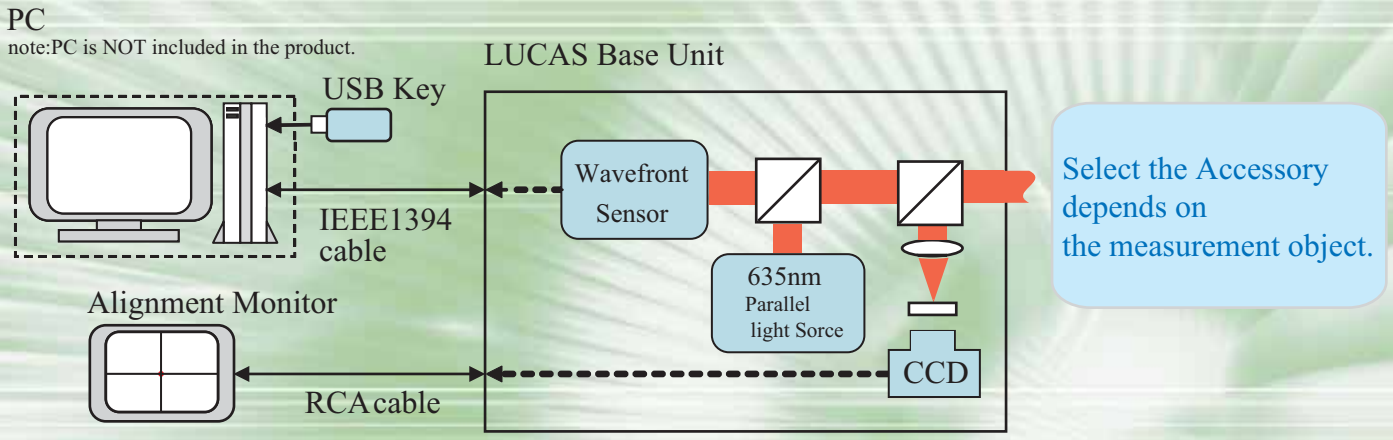
● Specifications of the LUCAS Base Unit System

Measurement Wavelength	635nm (Measurable Wavelength Range : 400-800nm *1)
Effective Diameter	φ4.0 - 9.6mm φ8.0 - 18.4mm : 2x with Beam Expander φ12.0 - 27.5mm : 3x with Beam Expander
Accuracy	< 1/100λ RMS(3σ) *2
Repeatability	< 1/500λ RMS (3σ) *2
Spatial Resolution	180μm (Typ.)
Update Rate	10Hz (Max)
Interface	IEEE1394 (6pin)
Operating Temperature	15 - 35
Size / Weight	180×330×130mm(W×D×H) / 7.2kg (Base Unit)

* 1 : Require to get the reference or each of Wavelength.

* 2 : Affected by the beam intensity distribution, absolute wavefront error.

● Block Diagram of the LUCAS Base Unit System



● Dedicated Accessories for the LUCAS

- Beam Expander (2x and 3x)
- Condenser Lens
- Vertically or Transversely situate unit
- Transmissive 5-axial stage for intended lens
- 3-axial stage with reference sphere
- 2-axial stage with reference flat

Other accessories or features can also be customized.
For details, refer to the System Construction Guide.

The content of these specification may change without notice.

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