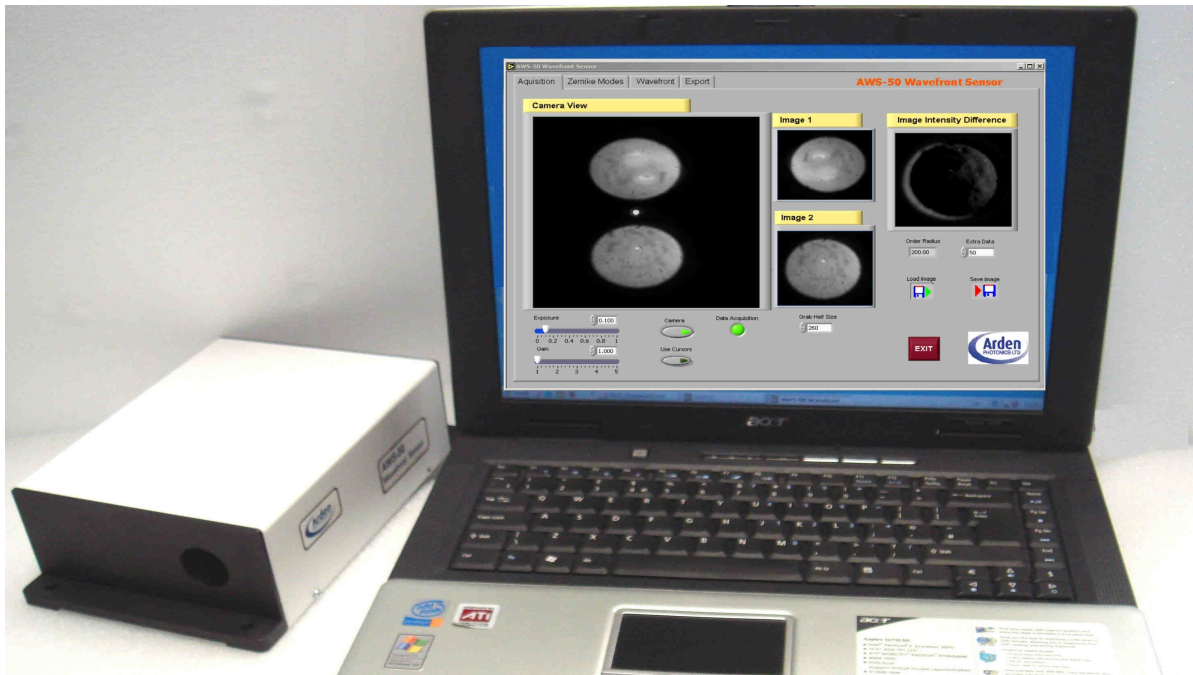


# AWS-50 Wavefront Sensor



The AWS-50 is a Wavefront Sensor designed for the measurement of optical aberrations and surface shape. It comes in a variety of configurations to meet all your requirements for wavefront quality measurements.

The AWS-50 utilises the patented IMP<sup>TM</sup> (Image MultiPlex) Wavefront Sensing technology developed by QinetiQ Ltd, one of Europe's largest R&D establishments, to measure the optical properties of a probe beam, which can be transmitted through or reflected off a test object.

## Product highlights

- Real time measurement
- Insensitive to vibration, unlike interferometers
- Compact and easy to use –ideal for QC or factory measurements

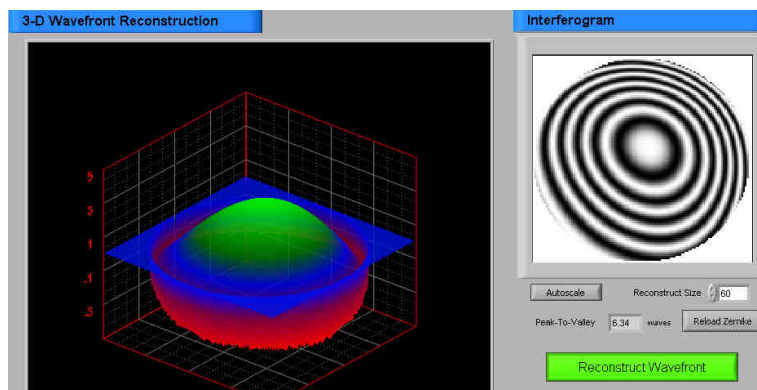
## Typical applications

- Testing of lenses, mirrors and other optical components
- Reduction of aberrations in optical assemblies
- Bow measurements on wafers, hard discs, MEMS substrates
- Measurement of mechanical components

The AWS-50 can be supplied as a turn-key solution, complete with computer and software package. The software has two modes of analysis:



Zernike mode for rapid mode-filtered determination of underlying shape. This is well suited to Wafer Bow measurement and determination of the optical properties of near flat mirrored surfaces.



Full Phase map mode for higher resolution mapping of surfaces. This generates a larger but more accurate data set.

Alternatively, if you prefer, we can supply software and hardware building blocks so you can construct systems for specialist applications.

- The AWS-50 can measure spherical or random profiles with high sensitivity, **without a Laser Interferometer**

### Technical specification

| Sensor head                             | SSA-12- 400    | SSA-12-200     |
|---|----------------|----------------|
| Measurement Aperture Diameter (mm)      | 12             | 12             |
| Peak Bow Height – Normal Mode (microns) | 15             | 3              |
| Measurement Accuracy (microns)          | 0.03           | 0.005          |
| Repeatability (microns)                 | 0.01           | 0.002          |
| Operating Wavelength (nm)               | 650            | 650            |
| Source type                             | RCLED          | RCLED          |
| Dimensions (mm)                         | 245 x 155 x 75 | 245 x 155 x 75 |
| Weight (kg)                             | 3              | 3              |

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This specification may be changed without notice due to technical advances or component changes.

Issue 6 Jan07