



Name: Micro Nano Profile Detection System (Interference Microscopy Inspection System)

Model: CRWLI

Instrument Introduction:

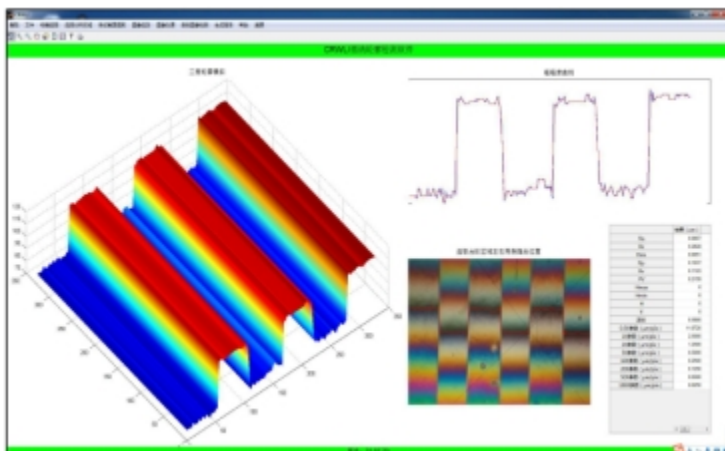
The CRWLI series micro nano profilometer is suitable for measuring the surface micro nano roughness, micro nano steps, and flatness of products in scientific research, teaching, and industrial production Testing. It can also be used for detecting film thickness, surface damage, and defect analysis.

Instrument features:

- 1.Small size and compact structure
- 2.Easy to operate and use, easy to learn and use
- 3.Video detection, convenient for post-processing image calculation
- 4.Can detect roughness parameters Ra, Rz, Rp, Rv, PV, Rms
- 5.Can detect the maximum height, minimum height, and average height of the contour
- 6.Depth of detectable surface micro nano scratches
- 7.Can detect the physical and optical thickness of single-layer transmission film layer
- 8.Can detect the surface roughness of steel balls
- 9.Built in refractive index database for commonly used coating materials, easily accessible
- 10.Can simulate the three-dimensional contour effect of the detected area

Instrument parameters:

- 1.Objective: 10X Mirau interferometer objective (standard), 5X Michelson (optional), 20X Mirau (optional)
- 2.Light source: LED white light source, adjustable brightness, center wavelength 600nm
- 3.Focusing seat: coaxial dual speed focusing, stroke 50mm
4. Workbench: (1) X stroke+/-7.5mm, Y stroke+/-7.5mm
- 4.Camera: 3 million pixels
- 5.Software: CRWLI Micro Nano Contour Detection Software



Software Description:

CRWLI software is used for surface micro nano level contour analysis and detection. It imports a single white light interference fringe pattern into the software, performs relevant operations, and finally detects it. Measure relevant parameters and simulate the three-dimensional contour of the surface.

Compared to white light interferometers for detecting surface three-dimensional morphology, this software is an effective solution for low-cost detection and analysis of cross-sectional profiles at a single position on the surface.

Software Usage:

1. Micro nano level surface damage depth detection
2. Surface micro nano step detection
3. Roughness, contour and depth detection of multi engraved line board
4. Micro nano surface roughness detection Ra, Rz, Rp, Rv, PV, Rms。
5. Profile detection of coating film layer
6. Surface roughness detection of steel balls

Software features:

1. Software specific algorithms make surface contour recognition more accurate
2. Only need to provide white light interference fringe images to detect surface contour related parameters
3. It can detect multiple parameters such as surface roughness parameters, micro nano steps, and surface damage depth
4. The detected surface contour results can be simulated into a three-dimensional morphology for analysis purposes
5. Automatically or manually calculate half wavelength
6. The highest inspection accuracy is better than 10nm
7. Output the test report in Word format
8. Can detect samples with roughness Ra less than 2um and step or scratch depth not exceeding 4um

Test report:

