

ContourGT-K 3D Optical Microscope

- Uncompromised Imaging and Metrology for Widest Range of Surfaces

The ContourGT-K 3D Optical Microscope sets a new industry standard in design and cost for surface metrology performance. With exceptional roughness and 2D/3D measurement capabilities, high-resolution imaging and the industry's most advanced user friendly interface, the system offers uncompromised metrology in a simplified package with a compact footprint. The gage-capable ContourGT-K provides intuitive access to an extensive library of pre-programmed filters and analyses for LED, solar cell, thick films, semiconductor, ophthalmic, medical device, MEMS and tribology applications. Boasting unmatched Z-axis resolution and accuracy, the ContourGT-K provides all of the industry recognized advantages of Bruker's proprietary white light interferometry without the deficiencies of conventional confocal and standard digital microscopes.

Superior Imaging and Resolution

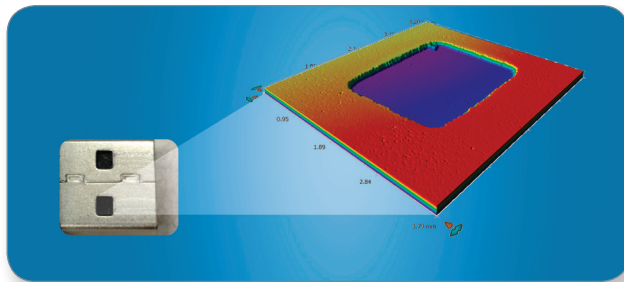
- Best Z resolution independent of magnification
- Largest field of view
- High-stability, vibration-tolerant design
- High-resolution and color camera options

Powerful Measurement and Analysis

- Streamlined interface and intuitive workflow
- Real-time automated measurement optimization
- Extensive library of filters and analysis options
- Customized analysis reporting

Unparalleled Metrology

The ContourGT-K is the culmination of over three decades of proprietary optical innovation and industry leadership in non-contact surface metrology, characterization and imaging. The ContourGT-K exhibits the low noise, high speed, accuracy, and precision results that quantitative metrology requires. With the use of multiple objectives and integrated feature recognition, features can be tracked over a variety of fields of view and at sub-nanometer vertical resolution, providing scale-independent results for quality control and process monitoring applications in very diverse industries.



Quantitative measurement of USB connector. ContourGT-K can image a large scan area over a variable reflectance sample, providing the fastest time to data.

Unmatched Value and Scalable Options

With thousands of customized analyses and Bruker's simple, powerful Vision64® user interface, the ContourGT-K is optimized for productivity in the lab and on the factory floor. The hardware and software combine to provide streamlined access to top optical performance at price points thousands of dollars lower than is possible for comparable metrology capability. In addition, the ContourGT-K can be significantly extended past the standard platform with field-upgradable add-ons and application-specific customization packages:

- Fully automated turret and programmable X, Y, Z movement
- NanoLens™ AFM module
- Application-specific productivity software

**ContourGT-K delivers
uncompromised metrology capability
and unprecedented value.**

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Specifications

| | |
|---------------------------|---|
| Max. Scan Range | Up to 10mm |
| Vertical Resolution | <0.01nm |
| RMS Repeatability (PSI) | 0.01nm |
| Lateral Resolution | 0.38µm min (Sparrow criterion); 0.13µm (with AcuityXR™) 0.01µm (with NanoLens) |
| Step Height Accuracy | <0.75%* |
| Step Height Repeatability | <0.1% 1 sigma repeatability |
| Max. Scan | 47µm/sec (with standard camera) |
| Sample Reflectivity | 0.05% - 100% |
| Max. Sample Slope | Up to 40° (shiny surfaces); Up to 87° (rough surfaces) |
| Sample Height | Up to 100mm (4in.) |
| XY Sample Stage | 150mm (6in.) manual or optional motorized stage |
| Z Focusing | 100mm (4in.) manual or motorized option |
| Tip/Tilt Function | ±6° manual in stage |
| Optical Metrology Module | Patented dual-LED illumination; Single-objective adapter; Optional automated or manual turret; Optional manual or motorized discrete modules |
| Objectives | Parfocal: 2.5x, 5x, 10x, 20x, 50x, 115x LWD: 1x, 1.5x, 2x, 5x, 10x TTM: 2x, 5x, 10x, 20x Bright field: 2.5x, w5x, 10x, 50x |
| Available Zoom Lenses | 0.55x, 0.75x, 1x, 1.5x, 2x |
| Camera | Standard monochrome: 640 x 480 High-resolution monochrome (option): 1280 x 960 Color (option): 640 x 480 |
| Software System | Vision64 Analysis Software on Windows 7 64-bit OS |
| Software Packages | Production mode; AcuityXR; Annular Analysis; HD VSI; High Speed AF; Optical Analysis; Sure-Vision; Thick Film; MatLab; SDK |
| XY Automation | Manual stitching standard; Automated stitching, scatter and grid automation standard with motorized XY stage |
| Calibration | Via traceable step standards |
| System Footprint | 492mm (W) x 534mm (D) x 754mm (H) |
| System Weight | 60kg (133lbs) |
| Warranty | 12 months |

* Absolute accuracy for step heights 8µm and greater.

Cover images

Foreground: ContourGT-K 3D Optical Microscope.

Background: 3D image of butterfly wing.

Insets: PSS structure (top), detail of metal surface measurement (middle), medical implant samples in front of 3D knee implant measurement (bottom).